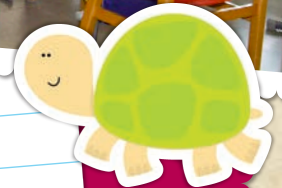




# An Ounce of Prevention



A resource guide to help prevent  
and control the spread of illness  
in schools and daycares



**Public Health**  
**Santé publique**  
SUDBURY & DISTRICTS



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# INTRODUCTION

The aim of this manual is to promote the health and well-being of children and help reduce the spread of infections in schools and daycares. Many sources of reputable literature were reviewed and adapted to provide clear and easy to use infection control guidelines. As there are variations of opinions within the medical, school, and child care communities on certain infection control matters, we have tried to provide the most reasonable and achievable recommendations.

In Ontario, there are several pieces of legislation regarding infection control standards and activities in school or daycare settings. Public Health's role in infection prevention and control is described in the *Ministry of Health and Long-Term Care Ontario Public Health Standards*, pursuant to the **Ontario Health Protection and Promotion Act.**, R.S.O. c.H. 4 under the **Child Care and Early Years Act**, 2014, and the **Ontario Immunization of School Pupils Act.**, R.S.O. 1990, c.I.1. The infection control practices recommended by the Medical Officer of Health (MOH) for Public Health outlined in this manual are also requirements for schools and daycares.

## Public Health's Role

The role of Public Health Sudbury & Districts is to provide:

- consultation on the development of written school or daycare infection control policies and procedures
- infection control education
- school or daycare inspections

Public Health provides other support to schools and daycares, beyond infection control. A description of these services is included in this manual for your convenience.

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# HOW TO USE THIS GUIDE

This is a resource to help school personnel and daycare providers develop and implement good infection control policies and procedures of their own. It is divided into seven sections.

## Part 1: Prevention and Infection Control

Information on the prevention and control of infections and communicable disease.

## Part 2: Immunization for Staff and Children

Information on the ***Child Care and Early Years Act***, the ***Immunization of School Pupils Act***, and routine childhood immunizations.

## Part 3: Illness in Schools or Daycares

Information on caring for ill children.

This section also contains information on common infections and diseases. Many infectious diseases can be prevented by routine childhood immunization. These are known as “vaccine preventable diseases.” This section will inform you if a disease is vaccine preventable.

Some diseases must be reported to Public Health Sudbury & Districts. This section will tell you when to report a case or outbreak of disease.

## Part 4: Outbreak Management

Provides information on how to recognize outbreaks of illness in a school or daycare setting, what actions to take to control them, and how to prevent further spread to other children, staff, and the community at large.

## Part 5: Infestations in Schools or Daycares

Information about infestations that can affect children, such as head lice, ringworm, scabies, and pinworms. There is also information on how to treat and control the spread of these infestations.

## Part 6: Food Safety in Schools or Daycares

Information about important principles of food safety including proper food handling techniques, safe food storage, and temperature control. Many cases of food-borne illnesses and outbreaks can be easily prevented by following the guidelines in this section.

## Part 7: Injury and Hazard Prevention

Information on preventing common injuries and illnesses by child-proofing your school or daycare. Information is included on safeguarding outdoor play areas, toy dangers, weather safety, and common indoor health hazards.

# SYMBOLS USED IN THIS GUIDE



## **No school or daycare!**

The person must stay home during the recommended exclusion period to avoid spreading the illness to others. The recommended number of days the person must stay home will be next to this symbol.



## **OK to go!**

This symbol will tell you that there are no exclusion periods for a particular illness. The infected person is able to go to school or daycare.



## **This disease must be reported in Ontario!**

If this illness is on the list of Diseases of Public Health Significance for Ontario, information about how quickly the notification must be made to Public Health Sudbury & Districts will accompany this symbol.



## **This is a vaccine preventable disease!**

This symbol appears when a vaccine is available to help protect against the specific disease. Details about the vaccine will also be found next to this symbol.



## **Vaccination required before school or daycare entry!**

Provincial law requires vaccination against a specific illness before a child attends school or daycare. If there are medical/philosophical exemptions, proper paperwork must be provided by the child's family.



## **Incubation and contagious periods**

Information about the time between exposure and actual illness (incubation) and how long the person can spread the illness to others (contagious).



## **A word of caution!**

When this symbol is next to information in this manual, it is important to take note that there is a risk of injury or infection.



## **Keep in mind . . .**

This symbol will appear where there is a need to highlight important or helpful information.



## **Information for pregnant women**

Important information that pregnant women need to know will have this symbol next to it.

# IMPORTANT PHONE NUMBERS AND WEBSITES

**Public Health Sudbury & Districts**

Toll free: 1.866.522.9200

Main office: 705.522.9200

Chapleau: 705.860.9200

Espanola: 705.222.9202

Manitoulin Island: 705.370.9200

Sudbury East: 705.222.9201

**Telehealth Ontario**

1.866.797.0000

TTY: 1.866.797.0007

**Poison Control**

1.888.310.1122

**City of Greater Sudbury**

Children Services: 3-1-1, ext. 4371

Social Services: 3-1-1, ext. 3565

Building/Property Standards: 3-1-1

**Canadian Red Cross**

Sudbury Branch

705.674.0737

**First Nations and Inuit Health**

705.671.0608

**Parent Health Line**

1.888.603.9100

**Kids Help Phone**

1.800.668.6868

**Family Responsibility Office**

1.800.267.7263

**Emergency Preparedness Hotline**

1.800.830.3118

**The Lung Association Asthma Hotline**

1.800.668.7682

**Health Canada**

[www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

**Environment Canada**

[www.weatheroffice.ec.gc.ca](http://www.weatheroffice.ec.gc.ca)

# WALK-IN CLINICS

**After Hours Medical Clinic**

1122 Lasalle Blvd. (at Attlee), Sudbury  
705.566.3366

**Azilda Walk-in Clinic**

93 Notre Dame St. West, Azilda  
705.983.4222

**Bancroft After Hours  
Medical Walk-in Clinic**

1485 Bancroft Dr., Sudbury  
705.524.7954

**Brady Clinic**

359 Riverside Dr., Sudbury  
705.688.8833

**Foleyet Nursing Station**

Foleyet  
705.899.2053

**Garson Walk-in Clinic**

3098 Falconbridge Hwy, Unit 5, Garson  
705.693.4200

**Gogama Health Clinic**

34-A Lowe St., Gogama  
705.894.2005

**Killarney Health Centre****Nursing Care**

32 Commissioner St., Killarney  
705.287.2300

**Lasalle All Day Walk-in Clinic**

1813 Lasalle Blvd. (at Auger), Sudbury  
705.560.9422

**Lively Medical Centre**

210 Sixth Ave., Lively  
705.692.4774

**Northwood Four Corners  
Walk-in Clinic**

2009 Long Lake Rd., Suite 101, Sudbury  
705.522.3380

**Northwood Health Care****Walk-in Clinic**

280 Lasalle Blvd., Sudbury  
705.560.2227

**Northwood Val Est Walk-in Clinic**

3140 Hwy 69 North, Unit 8, Val Caron  
705.897.7464

**Notre Dame Medical Centre**

430 Notre Dame Ave., Sudbury  
705.671.9797

**Val Caron Medical Clinic**

2956 Hwy 69 North, Val Caron  
705.897.2345

# HOSPITALS

**Health Sciences North**

Emergency Department

41 Ramsey Lake Road, Sudbury

705.523.7100

**Chapleau General Hospital**

6 Broomhead Rd., Chapleau

705.864.1520

**Espanola General Hospital**

825 McKinnon Dr., Espanola

705.869.1420

**Manitoulin Health Centre**

Little Current Site

11 Meredith St., Little Current

705.378.2300

**Manitoulin Health Centre**

Mindemoya Site

2120A Hwy 551, Mindemoya

705.377.5311





# Part I: Prevention and Infection Control





# HOW INFECTIONS ARE SPREAD

“Germs” is a common term used for bacteria, viruses, fungi, and some parasites. They are found everywhere. Some of them help us to stay healthy. However, many different germs can lead to infection or disease. Infection from germs can be spread from person to person, or from the environment to a person, which is called communicable disease.

Some germs are **spread through the air** usually in droplets that are coughed, sneezed, or breathed into the air by a person who is infected. Some germs such as the common cold, influenza, and mumps travel short distances. Others, such as measles and chickenpox, stay in the air longer and can travel longer distances.

Some germs are **spread by contact**. For some diseases this needs to be direct person-to-person contact with an infected person. In other cases, germs are **spread by indirect contact**; that is, by contact with an object that has germs on it. Some of the infectious diseases spread by contact are pinkeye, impetigo, and norovirus.



## Keep in mind . . .

Infestations such as ringworm, head lice, scabies, and pinworms also spread by contact.

Other germs **spread when the blood or body fluids** of an infected person enter the bloodstream or mucus membranes of another person. Some of the diseases spread in this way are HIV, hepatitis B, and hepatitis C.

Some germs are **spread by a common source** such as contaminated food or water. This is how food-borne illness occurs. Some of the diseases spread in this way are *Salmonella*, *E. coli*, and listeriosis.

Other germs are **spread by insects or animals**. Some of the diseases spread in this way are *Lyme disease*, *West Nile virus*, psittacosis, and rabies.

**Many germs spread in more than one way.** For instance, the influenza virus can be spread in droplets in the air or by contact with a tissue that someone with the flu has used to blow their nose.

It takes very few germs to cause an infection. Just because something looks clean does not mean that it is. Therefore, it is important for your school or daycare to have policies and procedures in place that will protect the children and staff from becoming infected. Each of the sections in this manual outlines how specific infections are spread and what steps to take to help prevent or control the spread of infection.

# ROUTINE INFECTION CONTROL PRACTICES

We cannot always tell when someone has an infection. Some people may be infected with germs and not appear sick. However, they may still be able to pass the germs on to others. For this reason, routine infection control practices should be used with everyone, whether they appear sick or not.

Routine infection control practices help reduce the chances of an infection spreading from one person to another and are part of an effective infection control program.

- **Wash your hands.** Handwashing is the best way to prevent the spread of infection. Proper handwashing reduces the spread of colds and influenza by as much as 40% (*page 1-5*).
- **Use disposable gloves** when handling blood or body fluids, when cleaning cuts or scrapes, or when changing a child's diaper.
- **Cover your mouth and nose** with a tissue when you cough or sneeze. If a tissue is not handy, cough or sneeze into your sleeve, and not your hand (*page 1-8*).
- **Clean and disinfect diaper change areas between uses.**
- **Keep toilets visibly clean.**
- **Do not share personal items** such as hairbrushes, toothbrushes, towels, facecloths, sippy cups, or hats.
- **Wash school or daycare laundry using detergent and warm water.** The child's soiled clothing can be put into a plastic bag, sealed with a knot and sent home to be washed.
- When there is an increase in cases of illness, **contact public health** for additional steps to control the spread of disease.
- If possible, **separate sick children from well children** while waiting for the parent/guardian to arrive to take the child home.
- **Clean and disinfect** according to the guidelines (*pages 1-9 to 1-14*).

# HAND HYGIENE

## HANDWASHING

Handwashing is the best way to prevent the spread of infection. Proper handwashing significantly reduces the spread of colds, influenza, and diarrheal illnesses. When you wash your hands, you wash away the germs that you may have picked up from other people, from surfaces, or from animals.

Teach children to wash their hands thoroughly and often so that handwashing becomes a lifelong habit.

There should be liquid soap, water, and disposable paper towels available for handwashing. To prevent scalding, water should not exceed 49°C (120°F).

Use plain liquid soap to wash hands. Do not use antibacterial soaps or cleaners; these can lead to antimicrobial resistance. Bar soaps are not acceptable in the school or daycare setting since germs can grow on the soap and in the pooled water that collects under the soap.

When washing their hands with soap and water, younger children should be encouraged to sing “Twinkle, Twinkle, Little Star”. This will give them approximately 15 seconds of handwashing. Then rinse hands well. Use disposable paper towels to dry hands, turn water taps off, and throw the towels in the garbage.

## HAND SANITIZERS

When soap and water are not available, children should use an alcohol-based hand sanitizer with a concentration of at least 70% alcohol. Although alcohol-based hand sanitizers do not replace handwashing, they are the next best thing in certain situations such as outdoor picnics.

Alcohol-based hand sanitizers are safe for children to use.

When cleaning their hands with alcohol-based hand sanitizer, children should use enough sanitizer to keep their hands wet for 15 seconds; follow the directions on the bottle.

When hands are visibly dirty or in case of diarrhea, soap and water work better than a hand sanitizer.



### Keep in mind . . .

“No Touch” water taps and garbage cans will help reduce the spread of infection.

# HAND HYGIENE

## WHEN TO WASH HANDS

### **Children should wash their hands:**

- upon arriving at the school or daycare
- before and after eating
- after using the toilet
- after sneezing, coughing, or wiping their nose
- when their hands are dirty
- after playing with commonly used toys
- before and after playing at a water table
- after playing outdoors or in a sandbox
- after handling animals or animal waste

### **Staff should wash their hands:**

- upon arriving at work or returning from a break
- before preparing, serving, or eating food
- after diapering a child or checking a diaper
- after cleaning up messes
- after wiping a nose
- after going to the bathroom or assisting a child to use the bathroom
- after sneezing or coughing
- after playing outdoors with children
- before giving any medications
- after assisting a child with handwashing



# HAND HYGIENE

## STAFF HANDWASHING

1. Leave jewellery at home or remove it upon arrival at the school or daycare.
2. Use soap and warm running water.
3. Rub hands vigorously as you wash.
4. Wash all surfaces including backs of hands, wrists, between fingers, and under fingernails.
5. Rinse hands well. Leave water running.
6. Dry hands on a single-use paper towel.
7. Turn off faucet with a dry paper towel. Do not use bare hands to turn off faucet.
8. Nail brushes are not to be used.

## INFANT HANDWASHING

1. Clean infant's hands thoroughly with a damp paper towel moistened with liquid soap.
2. Rinse hands from wrist to fingertips using a fresh paper towel moistened with clean water.
3. Dry infant's hands with a fresh paper towel.
4. Turn off faucet with paper towel and discard.
5. Wash your own hands.

## TODDLER HANDWASHING

1. Have child wet hands.
2. Squirt a drop of liquid soap onto child's hands.
3. Help child wash all areas of hands for 15 seconds.
4. Rinse child's hands from wrist to fingertips under running water.
5. Dry child's hands with a fresh paper towel.
6. Turn off faucet with paper towel and discard.
7. Wash your own hands.

## SCHOOL-AGE HANDWASHING

1. Ask the children to wash their hands correctly.
2. Show the children how to wash their hands if they do not know how or have forgotten.
3. Remind the children that handwashing will help keep them from getting sick.

# USING GLOVES

Gloves help prevent hand contamination. However, the use of gloves is not a substitute for proper handwashing. Gloves are used to prevent or reduce the risk of transmission of germs from children to staff and vice versa. They prevent exposure to an infectious source by placing a barrier between the source and the skin. Gloves should be worn when it is expected that the hands will be in contact with mucous membranes (eyes, nose, or mouth), broken skin, blood, body fluids, and contaminated equipment or surfaces.

Gloves should be made of sufficient quality to provide adequate protection. Gloves may not provide full protection as leaks, tears, or punctures can occur. Therefore handwashing should take place before gloves are put on and after they have been removed.

## DISPOSABLE GLOVES

It is important to remember when gloves are being used they must be changed frequently and before the start of any new activity. Gloves must be discarded immediately in the garbage after a single use. Allergies to latex may discourage the use of disposable gloves. However, disposable gloves are available in non-latex (vinyl) form.

### **Disposable gloves can be useful if they are worn at the following times:**

- to cover severe dermatitis, cuts, or open sores on a staff member's hands—the staff member should have their sores covered with bandages
- to care for children with severe dermatitis, cuts, or open sores—these children should have their sores covered with bandages
- if there is a risk of exposure to blood or body fluids
- to change a diaper after a child has had a bowel movement

Proper removal of gloves is important. If gloves are not removed properly, your hands and other objects can be contaminated and then the whole purpose for wearing the gloves has been defeated.

### **Proper procedure for removing disposable gloves:**

1. Grasp the glove at the heel of the hand just below the cuff and pull the first glove inside out.
2. Reach inside the cuff of the second glove and slowly turn it inside out while removing it over the first glove.
3. Place the gloves in a garbage container lined with a garbage bag.
4. Wash your hands (*page 1-5*).



# USING GLOVES

## HOUSEHOLD RUBBER GLOVES

This type of glove is used primarily to prevent hands from becoming dry and irritated from contact with soap, water, and disinfection solutions.

Separate gloves should be assigned to the following applications:

- dishwashing by hand
- cleaning toys and general housekeeping
- cleaning washrooms and potties
- cleaning up large amounts of stool, urine, or vomit

To help identify the purpose of each set of gloves, store them in the area where they will be used and keep them out of the reach of children.

After each use, ensure that the gloves are rinsed, cleaned, and disinfected. Then hang the gloves to dry before reuse.

# COUGH AND SNEEZE ETIQUETTE

You can help stop the spread of germs that make you and others sick by practicing “cough and sneeze etiquette”.

## USING A TISSUE

Always cover your mouth and nose with a tissue when you cough or sneeze.

Throw the used tissue into a garbage can, and then wash your hands using either liquid soap and water or an alcohol-based hand sanitizer.

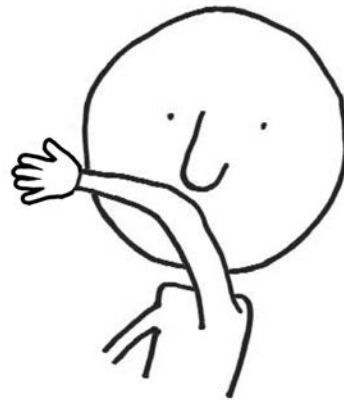


## USING YOUR SLEEVE

If you do not have a tissue, cough or sneeze into your sleeve—not your hand.

Keep your hands away from your eyes, nose, and mouth.

Germs (on your hands) can enter your body through the mucus membranes of your eyes, nose, and mouth.



# CLEANING AND DISINFECTING

## WHAT IS CLEANING?

**Cleaning** is the removal of visible dirt from a surface. **TO CLEAN:** Remove visible dirt by wiping up with a clean, wet cloth and a little household cleaning detergent. Wipe off excess water.

## WHAT IS DISINFECTING?

**Disinfecting** is done after cleaning to reduce the number of germs remaining on a surface to a safe level. **A surface cannot be properly disinfected until it has first been thoroughly cleaned.** Routine cleaning and disinfecting of surfaces will help to reduce the spread of infection and disease. Disinfectants other than bleach may be used but must be suitable for the intended purpose, especially on food contact surfaces or objects that children may put in their mouths. **READ THE ENTIRE LABEL** and use the product exactly as directed.

## SELECTING A DISINFECTANT

Disinfectants usually kill harmful germs such as bacteria, viruses, and fungi depending on the type of disinfectant. Selecting a disinfectant should be based on the function the product is expected to perform. The ideal disinfectant would be broad spectrum (that would eliminate bacteria, viruses, protozoa, fungi, and spores), non-irritating, non-toxic, non-corrosive, and inexpensive. This disinfectant does not exist, and different disinfectants have different characteristics. Some are strong (high-level disinfectants), some are weaker (low-level disinfectants), some are non-toxic, and some are corrosive.



### Pay careful attention!

Do not mix different disinfectants together because there is potential for harmful chemical reactions to occur.

In order to be considered a disinfectant, the *Ministry of Health and Long-Term Care* recommends that product labels of disinfectants have a Drug Identification Number (DIN) with the exception of bleach and alcohol. The presence of a DIN indicates that, upon a *Health Canada* review, it has been established to be safe and effective for its intended use.

Databases of approved disinfectants can be accessed at:

- <http://www.hc-sc.gc.ca/dhp-mps/prodpharma/databasdon/index-eng.php>
- <http://www.hc-sc.gc.ca/dhp-mps/prodnatur/applications/licen-prod/lnhpd-bdpsnh-eng.php>

# CLEANING AND DISINFECTING

## **Factors that affect what disinfectant you should choose:**

- Degree of contamination. Some disinfectants do not work well in the presence of a large amount of debris while others are very effective.
- Concentration and quantity of disinfectants. It is important to choose the proper concentration and quantity of disinfectant that is best suited to each situation.
- Contact time and temperature. Sufficient time and appropriate temperature must be allowed for action of the disinfectant and may depend on the degree of contamination and the amount of organic matter present.
- Toxicity and relative danger to people that may be exposed, such as children.
- Impact on equipment and the environment.
- Cost.

## **HIGH-LEVEL DISINFECTANTS**

High-level disinfectants are very strong and therefore very effective at killing harmful germs including the resistant ones such as spores and tuberculosis. They are most often used in outbreak situations as a way of controlling the diseases that spread from objects. High-level disinfectants are also used on surfaces highly contaminated with blood, vomit, and large amounts of stool. A supply of high-level disinfectant should be available on site at all times for use when blood, vomit, or fecal spills occur.

Remember, cleaning must be conducted prior to any disinfection.

## **Bleach (5-6% sodium hypochlorite) and Water**

- One part bleach to 10 parts water (1:10 solution) provides approximately 5,000 parts per million (ppm) of disinfectant.
- Test strips are handy for ensuring that this concentration is achieved.
- Bleach should be left on the surface to disinfect for a contact time of 10 minutes.
- This is a very effective high-level disinfectant if used correctly and is not very expensive.
- Allow for appropriate ventilation (open windows, screen doors, etc.) to remove strong chlorine odors.
- When using bleach and water, a fresh solution must be made daily because the bleach loses its potency over time. Also, exposure to sunlight causes bleach to lose its potency.
- For large quantities, use 50 ml of bleach in 500 ml of water.

# CLEANING AND DISINFECTING

## 6% Hydrogen Peroxide

- Hydrogen peroxide is very effective and can be used in outbreak situations as a high-level disinfectant. This is NOT the same product found in drugstores.
- It kills almost all germs if left on the surface of objects for the required time.
- It is biodegradable, which is attractive to those worried about contaminating the environment.
- It is quite expensive and it is unnecessary to use during routine disinfection.
- Follow the manufacturer's instructions on how to safely and effectively use this product.
- Test strips are handy for ensuring that appropriate concentration is achieved.

## 7% Accelerated Hydrogen Peroxide

- Accelerated hydrogen peroxide is a fairly new product that has been found to be very effective.
- It works the same way as hydrogen peroxide but it does not require the same long contact time.
- Test strips are handy for ensuring that appropriate concentration is achieved.

## Iodine Solutions

- Depending on the concentration in water, iodine is effective against bacteria and viruses.
- Consult the manufacturer's instructions regarding dilutions needed.
- A contact time on the surface of equipment must be 10 minutes or longer.
- Test strips are handy for ensuring that appropriate concentration is achieved.

## Glutaraldehyde and/or Formaldehyde

### **\*\* NOT TO BE USED IN SCHOOLS OR DAYCARES \*\***

- These aldehydes are very effective at killing all germs.
- They release strong vapours that cause eye and throat irritations, intense allergic reactions, and other problems. As a result, they are not safe to use around children.

## LOW-LEVEL DISINFECTANTS

Low-level disinfectants do not have the killing ability of high-level disinfectants but still do an effective job of killing most germs that are not highly resistant. These could be used for routine cleaning and disinfection practices of equipment (for example, diaper tables, table surfaces, mouthed toys) in the absence of an outbreak or body fluid spill. They are generally inexpensive and play an important role in day-to-day disinfection.

# CLEANING AND DISINFECTING

## **Bleach (5-6% sodium hypochlorite) and Water**

- One part bleach to 100 parts water (1:100 solution) provides approximately 500 parts per million (ppm) of disinfectant.
- Test strips are handy for ensuring that this concentration is achieved.
- A most common disinfectant used for general disinfection of equipment.
- A contact time of 10 minutes on surfaces is required for disinfection.
- Allow for appropriate ventilation (open windows, screen doors, etc.) to remove strong chlorine odours.
- When using bleach and water, a fresh solution must be made daily because the bleach loses its potency over time. Also, exposure to sunlight causes bleach to lose its potency.
- For large quantities use 50 ml of bleach in 5 L of water.
- For small quantities use 5 ml of bleach in 500 ml of water.

## **0.5% Accelerated Hydrogen Peroxide**

- Accelerated hydrogen peroxide is a fairly new product that has been found to be very effective.
- It works the same way as hydrogen peroxide but it does not require the same long contact time.
- Test strips are handy for ensuring that appropriate concentration is achieved.

## **70% Ethanol or Isopropyl Alcohol**

- These alcohols kill bacteria but not all the major viruses.
- It is generally not recommended for disinfection of surfaces in daycares.
- They also require a long contact time and are absorbed through the skin causing dry hands.
- These disinfectants are popular for cleaning equipment by immersion and can be used for that purpose.
- Follow the manufacturer's instructions on the label to properly use these disinfectants.

## **Quaternary Ammonium Compounds**

- This disinfectant is effective against most (but not all) bacteria, but it is not very effective against viruses.
- If used, it should be at a concentration of 400 ppm. Follow the manufacturer's instructions regarding concentration.
- Test strips are handy for ensuring that this concentration is achieved.

# CLEANING AND DISINFECTING

## Phenols

### **\*\* NOT TO BE USED IN SCHOOLS OR DAYCARES \*\***

- Although effective at killing certain germs such as bacteria, phenols are not very effective against viruses.
- Phenols require long contact times and leave an unpleasant residue on surfaces.
- Phenols are easily absorbed through skin and have been found to be toxic on the kidneys. As a result, children should not be exposed to phenols.

When in doubt, check the manufacturer's product label to see what type of disinfectant is in the product and steer clear of glutaraldehydes, formaldehydes, and phenols (for example, some Lysol® products).

If you are not sure that a product is a disinfectant, check the label for the Drug Identification Number (DIN). These numbers indicate that the product has been approved as a disinfectant by *Health Canada*. This means that the claims on the label regarding the product's effectiveness are valid.

Bleach does not have a DIN however this product is an approved disinfectant for use in settings where children are present.



### **Keep in mind . . .**

Other than bleach, all disinfectants should have expiration dates and should be replaced prior to expiration.

# GUIDELINES FOR CLEANING AND DISINFECTING

## KITCHEN

- **counters:** clean before and after each use
- **food contact surfaces:** clean and sanitize before and after each use
- **sinks:** clean and sanitize after each use

## BATHROOM

- **diaper table:** clean and disinfect after each use
- **potty:** clean and disinfect after each use
- **toilet:** clean and disinfect daily and when soiled
- **sinks:** clean and disinfect daily and when soiled
- **floors:** clean and disinfect daily and when soiled

## SLEEP ROOM

- **bedding:** launder weekly, between children, and when soiled
- **cribs:** clean and disinfect weekly, between children, and when soiled
- **playpens:** clean and disinfect weekly, between children, and when soiled
- **sleep mats:** clean and disinfect weekly, between children and when soiled

## FLOORS

- **smooth:** vacuum or sweep daily, wash weekly, and when dirty
- **carpet (infant rooms):** vacuum daily, clean using steam or hot water every month
- **carpet (all other rooms):** vacuum daily, clean using steam or hot water every 3 months

## MISCELLANEOUS

- **cleaning cloths:** launder after each use
- **brushes:** follow guidelines on *page 1-18*
- **mops:** follow guidelines on *page 1-18*
- **water play equipment:** clean and disinfect after each use
- **fountains:** clean and disinfect daily



# GUIDELINES FOR CLEANING AND DISINFECTING

## TOYS

- Choose toys that are washable, sturdy, and too large to be swallowed to prevent choking.
- Choose toys that can be cleaned and disinfected.
- Stuffed toys should be machine washable.
- Clean toys when visibly dirty and at least once a week.
- Clean toys daily if toys are used a lot, or if there is illness in the school or daycare.
- Remove toys from circulation that children have put in their mouths or that have other body fluids on them until they can be cleaned and disinfected.
- When cleaning toys, check them for sharp, jagged edges or small pieces that can be easily broken off. If toys cannot be fixed, throw them away.

### To Clean Hard Toys

It is important to clean and disinfect all toys, especially toys that may have been placed in children's mouths. Each toy should be cleaned and disinfected before being placed back into circulation. You may choose one of these three options to clean hard toys:

- 1** Plastic toys that can withstand the heat can be cleaned and sanitized in the dishwasher. A sanitizer cycle must be equipped on the dishwasher. The heat of the sanitizer cycle is hot enough to disinfect the toys.
- 2** Plastic toys that can be submersed in a sink or bucket must be cleaned with dish soap and water. Rinse with warm water. Disinfect the toys with an approved disinfectant and soak for the appropriate contact time. Allow the toys to air dry.
- 3** For toys that are frequently touched and cannot be submersed, wipe rather than soak these toys. Clean toys with dish soap and water using a clean cloth. Wipe dry. To disinfect, wipe toys with a clean cloth soaked in a disinfectant or use a commercial disinfecting wipe. Allow toys to air dry.

It is important to note that there are many disinfectants available for use. Make sure the disinfectant is safe for children. Follow the manufacturer's instructions when you use it. Some disinfectants may require a final rinse. Read the label!

### To Clean Stuffed Toys

- Clean stuffed toys in a washer with laundry soap.
- Dry stuffed toys in a dryer on a normal setting.

# GUIDELINES FOR CLEANING AND DISINFECTING

## BLOOD AND BODY FLUIDS

Body fluids include:

- urine
- feces (including diarrhea)
- saliva
- blood
- discharge from the nose
- vomit

It is a good idea to have a “spill kit” ready to be able to clean up spills of blood, vomit, diarrhea, or other body fluids that can carry infection.

Remember—clean first, then use a high-level disinfectant (*page 1-10*).

### **A preassembled spill kit should contain:**

- garbage bags
- masking tape
- disposable gloves (non-latex)
- paper towels
- detergent
- a high-level disinfectant
- bucket
- mop
- cloths
- brushes
- personal protective equipment (goggles, protective clothing)

### **In case of a spill of blood, vomit, diarrhea, or any other body fluid:**

- Wear disposable gloves or household rubber gloves that can be cleaned and disinfected.
- Follow handwashing procedure (*page 1-5*) prior to putting on and after removing gloves (*page 1-6*).
- Use other personal protective equipment as required, for example, using goggles and protective clothing if there is a risk of splashing.

# GUIDELINES FOR CLEANING AND DISINFECTING

## **For Hard Surfaces**

1. Wash your hands (*page 1-5*). Wear gloves (*page 1-6*). Use paper towels to soak up and remove most of the spill.
2. Place soiled paper towels directly into a plastic garbage bag.
3. With a mop or cleaning cloth, clean the soiled area with detergent and water to remove any visible dirt or body fluids.
4. After cleaning, disinfect the area using a high-level disinfectant.
5. If you use a commercial disinfectant, follow the instructions on the label.
6. Close the bag using masking tape (to prevent it from being opened) and deposit in regular garbage.
7. Remove gloves and other personal protective equipment, deposit disposable items in regular garbage, clean and disinfect reusable personal protective equipment such as goggles or protective clothing.
8. Wash your hands.

## **For Carpet And Upholstery**

1. Wash your hands. Wear gloves.
2. Do not use a vacuum.
3. Blot up spill with paper towels.
4. Place soiled paper towels directly into a plastic garbage bag.
5. Apply a household detergent or disinfectant to cover the spot. Let sit 30 minutes.
6. Blot up excess liquid with paper towels and dispose of them, per step 4.
7. Reapply detergent or disinfectant and let dry overnight.
8. Close the bag using masking tape (to prevent it from being opened) and deposit in regular garbage.
9. Remove gloves and other personal protective equipment, deposit disposable items in regular garbage, clean and disinfect reusable personal protective equipment such as goggles or protective clothing.
10. Wash your hands.
11. Steam clean carpet and upholstery, if necessary.
12. Replace heavily soiled carpets and upholstery that cannot be effectively cleaned and disinfected.

# GUIDELINES FOR CLEANING AND DISINFECTING

## To Clean And Sanitize Cleaning Equipment

1. Wash your hands (*page 1-5*).
2. Wear gloves (*page 1-6*).
3. Wash mops, cloths, and brushes in hot, soapy water and rinse. Ensure that all visible dirt is removed.
4. Soak mops, cloths, and brushes in a high-level disinfectant following the manufacturer's instructions.
5. Disinfect the mop handle by cleaning and then wiping with a high-level disinfectant.
6. Clean and disinfect reusable personal protective equipment such as goggles or protective clothing.
7. Clean and disinfect surface areas and sinks where you have cleaned equipment.
8. Remove gloves, deposit in regular garbage or clean and disinfect, and wash your hands.



### **Keep in mind . . .**

School boards have their own policies on cleaning and disinfection products to be used in schools.

# GUIDELINES FOR DIAPERING AND TOILETING

## CHANGING DIAPERS

Germs are everywhere, but grow particularly well in body fluids such as urine and stool contained in diapers. As a result, staff are at an increased risk of becoming ill or spreading infectious germs if they do not take special precautions when changing a diaper.

### Diaper Change Area Set-Up

Set up a change area that is separate from the children's activity area and the food preparation areas. This will help prevent the spread of infectious agents into high-risk areas such as the kitchen and play area. The surface should be approximately 1 m (three feet) from the floor and covered with a smooth, moisture-resistant, easy-to-clean material. Ensure that it has a safety ledge at least 6 to 7 cm in height. This will allow for easy maneuvering without the caregiver having to bend over, ease of cleaning and disinfection of the surface, and the safety of the child.



#### Pay careful attention!

Never leave a child unattended on the change table. Keep everything you need within reach.

It is recommended that disposable single-service change paper be used under each child and replaced before the next diaper change. This decreases the risk of fecal spread between children and staff. A tightly covered plastic container with a foot-operated lid and lined with a disposable bag for waste should be conveniently located in the immediate vicinity for safe disposal of waste. Make sure that this is out of the reach of children. Empty it frequently.

Clean and disinfect the container weekly and more often as needed.



#### Keep in mind . . .

A change table is used only for changing diapers. Do not use it for anything else.

Ensure that there is a handwash sink in the same room as the change area. Washing your hands and the child's hands (*page 1-5*) before leaving the room is a great way to lower the risk of spreading infectious germs.

### Cloth Diapers

For many different personal reasons parents or daycare providers may wish to use cloth diapers instead of disposable diapers. Although cloth diapers may reduce waste, they make it challenging to control the spread of infectious agents.

# GUIDELINES FOR DIAPERING AND TOILETING

## Diapering Procedure (cloth or disposable)

- Assemble supplies within easy reach.
- Hold child away from your clothes and place the child on a piece of clean change paper.
- **Disposable diaper:** Remove diaper, folding the soiled surface inward.
- **Cloth diaper:** Use toilet paper to remove formed stool from the diaper and flush it down the toilet. Cloth diapers at this point should be placed in a plastic-lined diaper pail with a tight-fitting lid. Each child using cloth diapers requires an individual diaper pail, or each child's soiled diapers must be placed in a bag. This bag or pail is then sent home with the child at the end of the day.
- Clean child's skin with moist disposable bottom wipes, wiping from front to back. Remove all soil—remember the creases.
- Place soiled disposable diaper and disposable bottom wipes in a plastic-lined garbage container.
- Wipe hands on a clean, disposable bottom wipe and discard it in the plastic-lined garbage container.
- Use skin care products only if requested by a parent and only for the designated child. Be sure that the skin care products are labelled with the child's name.
- Fasten the new diaper in place and dress child.
- Place change paper in the plastic-lined garbage container.
- Wash child's hands and your own (*page 1-5*) before returning the child to the play or sleep area.
- Disinfect change table surfaces with a disinfectant solution and a disposable cloth or towel. Let area dry to prevent irritation of children's skin.
- Do not wash personal clothing that has been soiled.
- Deposit large solids in the toilet and immediately bag soiled clothing and/or waterproof pants in a plastic bag to be returned to the parents at the end of the day.
- Wash your hands.
- Report any abnormal skin or stool conditions to parents and supervisor (for example, rash, unusual stool consistency, colour, odour, or frequency).

If using cloth diapers, ensure that diaper pails are cleaned and sanitized weekly, and store diaper pails (when not in use), in a well-ventilated room that is inaccessible to children and away from foods.

# GUIDELINES FOR DIAPERING AND TOILETING

## POTTY CHAIRS

Potty chairs are used for weaning young children off diapers. The same principles of infection control apply to using the toilet. However, some additional cleaning and disinfection is needed. The following procedure should be used for potty chairs:

- Choose potty chairs that are made of smooth, non-absorbent, easy-to-clean material, and that have a removable waste container.
- Keep potty chairs in the bathroom away from playrooms or hallways.
- Use potty chairs in a location where children cannot reach toilets, other potty chairs, or other potentially contaminated surfaces.
- Remove diaper, folding the soiled surface inward while keeping the diaper away from your body.
- Place soiled, disposable diaper in a plastic-lined garbage container.
- Place the child on the potty. Do not let the child play with toys or books during the procedure.
- Wipe the child's bottom from front to back and teach the child to do the same. This reduces the chance of urinary tract infection.
- Dump the potty contents into the toilet.
- Flush the toilet or let the child flush it.
- Diaper and dress the child.
- Help wash the child's hands, then wash your hands (*page 1-5*).
- Rinse the potty and flush contents.
- Wear gloves and use toilet paper to remove remaining stool from the potty.
- Clean the potty and spray a disinfectant over the potty's entire surface.
- Remove and throw out gloves (*page 1-6*).
- WASH YOUR HANDS.
- Dry the potty with single-use towels and throw them out.
- WASH YOUR HANDS AGAIN THOROUGHLY.
- Report any abnormal skin or stool conditions to parents and supervisor (for example, rash, unusual stool consistency, colour, odour, or frequency).

# GUIDELINES FOR DIAPERING AND TOILETING

## USING THE TOILET

Using the toilet presents similar risks to diapering. The concern is making sure that all the germs stay in the garbage, toilet, and down the sink—not in the next room, on you, or the child. As a result, care should be taken to follow proper procedures with children.

- Remove diaper, folding the soiled surface inward while keeping the diaper away from your body.
- Place soiled disposable diaper in a plastic-lined garbage container.
- Place the child on the toilet.
- Do not let the child play with toys or books during the procedure.
- Wipe the child's bottom from front to back and teach the child to do the same. This reduces the chance of urinary tract infection.
- Flush the toilet or let the child flush it.
- Diaper and dress the child.
- Help wash the child's and your own hands (*page 1-5*).
- Clean the toilet and spray a disinfectant over the toilet's entire surface.
- WASH YOUR HANDS again.
- Report any abnormal skin or stool conditions to parents and supervisor (for example, rash, unusual stool consistency, colour, odour, or frequency).



# GUIDELINES FOR COMMON SURFACES

## CRIBS, COTS, AND MATS

Sleep areas have the potential for spreading infectious diseases if cots, cribs and mats are placed too close together or shared. Children coughing and sneezing during naps can spread respiratory infections. The following care should be taken when using cribs, cots or mats in your school or daycare:

- All bedding, including cots, beds, cribs, and mats, should be maintained in a clean and sanitary manner.
- Cots and mats constructed of washable and waterproof materials are to be provided for toddlers.
- Sleeping surfaces or mats (including linen) that are placed directly on the floor should be stored separately. A method for distinguishing top from bottom should be devised to ensure that the same side is always placed to the floor.
- Cribs, cots, and mats should be separated by at least 1 m (three feet) unless divided by screens in order to reduce the transmission of disease and respiratory illness.
- A crib, cot, or mat must be thoroughly cleaned and disinfected prior to another child using it.
- Linens should be laundered at least once a week and more often as needed (for example, after a fecal or urine accident).
- Linen used for more than one child must be laundered between uses.
- Cribs, cots, or mats that are contaminated with feces, urine, or other body fluids, must be cleaned and disinfected and linen must be properly laundered.
- Linen and cots should be stored in a separate area to prevent contamination.
- Bed linens used on the cribs, cots, or mats should be tight-fitting and washable.
- Ensure that infants sleeping outdoors in a carriage are protected by netting.

# GUIDELINES FOR COMMON SURFACES

## WATER PLAY

A water play area is fun for children but it can also spread infections. Follow these guidelines if you choose to have one in your school or daycare:

- All staff and children must wash their hands (*page 1-5*) before and after water play.
- The water play table must be cleaned and disinfected properly before filling it.
- The water play container should be drained, cleaned, and disinfected after each use, and whenever you suspect contamination.
- Toys used in water play should be cleaned and disinfected after each use.
- Children with open sores or wounds must not be allowed to play at the water table.
- Carefully supervise children to make sure that they do not drink the water.
- Remove any water toys that came into contact with a child's mouth during shared water play.
- Discontinue the use of water play tables during an outbreak of communicable disease as this might be a potential source of spread.



### Keep in mind . . .

Children must be constantly supervised when there is any water present. This includes wading pools, tubs, or sinks.

# GUIDELINES FOR COMMON SURFACES

## INDOOR PLAY TABLES

Sand or food play tables are also commonly seen and provide a fun, creative activity for children. The use of sand or food at indoor play tables is permitted if these guidelines are followed:

- Buy sand from a supplier such as a garden centre, nursery, or toy store. It should state on the package that the sand has been washed and dried and is dust-free. Soil from places such as gardens is not permitted.
- Use only dry food materials in play tables. Discard and replace material if it becomes wet.
- The contents of large plastic play areas (for example, macaroni-filled play areas) should be discarded weekly and the play area should be cleaned and sanitized.
- Vacuum areas beneath play tables daily. Discard any material spilled on the floor. Do not sweep the material up and return it to the table.
- Discontinue the use of materials in play tables during an outbreak of communicable disease as this might be a potential source of spread.
- Do not use food materials where a rodent or insect infestation exists.
- Ensure that children and staff wash their hands thoroughly (*page 1-5*) before and after using the play table.
- Ensure that play tables are covered when not in use.
- Clean and disinfect toys used in the play tables weekly, or more often if required.

# GUIDELINES FOR PERSONAL ITEMS

## WHAT QUALIFIES AS A PERSONAL ITEM?

Toiletry and personal items can include:

- face cloths
- combs and brushes
- toothbrushes
- toothpaste
- clothing (coats, hats, mittens)

## HANDLING PERSONAL ITEMS

Personal items can spread infectious germs from one child to another. For this reason special care must be taken with these items. It is very important to avoid the sharing of personal items.

The following points highlight how to handle toiletry and personal items in schools or daycares:

- Ensure that each child has his or her own individual face cloth, comb, brush, toothbrush, and toothpaste. Label these items with the child's name.
- Store face cloths, combs, brushes, and toothbrushes separately so that they do not touch one another and make sure that they are not shared.
- Ensure that children's personal items such as hats and coats are stored separately and that the hook or cubby used for the storage of these items is labeled with the child's name.
- An effort should be made to provide each child at the school or daycare with his or her own personal cubby or locker for the storage of their personal items.

# PETS AND ANIMALS

## RISKS OF PETS IN A SCHOOL OR DAYCARE

Child care centres licensed under the *Child Care and Early Years Act*, 2014 (CCEYA) often incorporate animals into their program activities with children. Animals in these settings, whether as resident animals housed in the facility or as short-term visiting animals, can be a valuable learning tool and can stimulate children's interest in, curiosity and appreciation of nature. Providing opportunities to explore, care for, and interact with the natural world helps to strengthen these connections. While animals can pose a risk of infectious disease transmission and injury, particularly for infants and children under the age of five years, measures can be taken to minimize these risks while offering children these important opportunities.

The Ministry of Health and Long-Term Care (MOHLTC) has developed a best practice guidance document for the management of animals in child care centres to assist the operator in choosing appropriate pets and in implementing measures to be taken to minimize the risk of injury or infection to the children and staff. This document is available for public use on the MOHLTC website or through this link.

[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/reference.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/reference.aspx)

## TAKING PROPER PRECAUTIONS WITH ANIMALS

If you do allow animals (such as hamsters, gerbils, rabbits, or guinea pigs) into your school or daycare on a permanent or visiting basis, take the following precautions:

- Ensure that animals are kept in pens or cages at all times. Pens and cages should be kept at a safe distance from the children because debris can be knocked out of the cage and become accessible to children.
- Make staff responsible for cleaning cages and feeding animals.
- Turtles, newts, salamanders, and birds are not recommended because they often carry diseases that can be spread to people.
- Although keeping dogs and cats is permitted, it is not encouraged. Ensure that these animals are vaccinated for rabies and that the vaccination is kept up-to-date.
- Ensure that visiting animals have documented proof of current rabies vaccination, if applicable.
- Ensure that children and staff wash their hands thoroughly (*page 1-5*) after handling animals.
- Separate pet cages from sleeping areas.
- Pets are not allowed in outdoor children's play areas.

# PETS AND ANIMALS



## Keep in mind . . .

Any incident involving an animal bite or scratch must be reported immediately to Public Health Sudbury & Districts so that appropriate steps can be taken to make sure the pet is free of rabies.

## VISITS TO FARMS OR PETTING ZOOS

Animals at farms and petting zoos present the same risks as pets in schools or child care centres. There are added hazards because the animals are unknown to you. Before visiting a farm or petting zoo, review the MOHLTC guidance document entitled ***Recommendations to Prevent Disease and Injury Associated with Petting Zoos in Ontario***. This document is available to the public and can be found through the following link. The recommendations in this document can be used for both farms and petting zoos.

[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/reference.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/reference.aspx)





Part 2:

# Immunization for Staff and Children







# IMMUNIZATION REQUIREMENTS

## FOR CHILDREN

Immunizing children is one of the most important ways to protect their health and prevent serious disease or premature death due to infections. Because of vaccines, many diseases are no longer common in Canada. When registering a child for school or daycare, parents or guardians must provide a copy of their child's immunization records to the school or daycare.

Parents or guardians who request an immunization exemption must contact Public Health Sudbury & Districts to obtain information about this process. The objection to immunization must be based on the grounds that the immunization conflicts with the sincerely held convictions of the parent's religion or conscience. Some children may be exempt from immunization for medical reasons—such exemptions must be completed and signed by a legally qualified medical practitioner. The school or daycare then forwards a copy of the child's immunization record to Public Health Sudbury & Districts. Immunization records should be kept well organized for each child, and for up to two years after the child leaves the school or daycare.



### Keep in mind . . .

In the event of an outbreak of a vaccine preventable disease, non-immunized children may or will be excluded from attending school or daycare until the outbreak is declared over by the Medical Officer of Health.

## FOR STAFF

Staff from the school or daycare must have a health assessment and be immunized according to the recommendations of the local Medical Officer of Health.

**Every school official or daycare operator shall ensure that all staff have received the following required immunizations prior to commencing employment:**

- diphtheria/tetanus booster every 10 years
- pertussis (one dose of pertussis received in adulthood)
- polio
- measles, mumps, and rubella (recommended for staff born in/after 1970)

**The following vaccines are suggested for staff who have underlying chronic illnesses:**

- influenza (every fall)
- pneumococcal
- varicella (persons with compromised immune systems may not be eligible and this should be individually assessed with their health care provider)

# IMMUNIZATION REQUIREMENTS

An employee not immunized due to religious beliefs or because of medical problems should discuss this with their employer.



## **Keep in mind . . .**

Non-immunized staff cannot work in the school or daycare during an outbreak of a vaccine preventable disease.

## **FOR PREGNANT STAFF**

Pregnant staff or those who are trying to become pregnant should know their health history. Several childhood diseases can harm the unborn child and the mother if she is not immune.

### ***These diseases are:***

- chickenpox or shingles
- cytomegalovirus
- fifth disease
- rubella

Prior to pregnancy or as soon as possible in early pregnancy, a woman should talk to her health care provider about any necessary protection.

# VACCINE PREVENTABLE DISEASES

## ONTARIO ROUTINE IMMUNIZATION SCHEDULE

Here is the routine Immunization Schedule for Ontario

Age	Diphtheria *	Tetanus *	Pertussis	Polio *	Haemophilus Influenzae B (Hib)	Pneumococcal conjugate-13 *	Rotavirus (oral)	Measles, Mumps, Rubella *	Measles, Mumps, Rubella, Varicella	Meningococcal conjugate C	Meningococcal conjugate ACYW-135	Varicella (Chickenpox)	Hepatitis B	Human Papillomavirus (HPV)	Pneumococcal Polysaccharide	Seasonal Influenza	Herpes Zoster
2 months																	
4 months																	
6 months																	
12 months																	
15 months																	
18 months																	
4 to 6 years																	
Grade 7																	
14 to 16 years																	
24-26 years																	
≥ 34 years																	
65-70 years																	
65 years +																	

Note: each colour represents vaccinations given in one needle

\* Children are required to have these immunizations or a signed exemption to attend school in Ontario. (*Immunization of School Pupils Act*, 1990 and *Child Care and Early Years Act*, 2014).

Children attending daycare are expected to receive vaccinations as appropriate for age as outlined in the *Ontario Routine Immunization Schedule*, or have a signed exemption (*Child Care and Early Years Act*, 2014).

If children have received their immunizations at a different time, or in another province or country, their records may look different from this schedule.

Contact Public Health Sudbury & Districts if you have questions about immunizations.

# VACCINE SAFETY

## VACCINE STANDARDS

Health authorities in Canada take vaccine safety very seriously. To be approved in Canada, vaccines must meet *Health Canada's* highest standards for production, safety, and potency. No vaccine is 100% effective; however all of the vaccines used for the routine immunization of children are very effective in preventing disease.

## SIDE EFFECTS

Parents are often concerned about the side effects and safety of vaccines. The most common side effects are mild pain, fever, swelling, and redness where the needle was given. Some infant vaccines may cause a low-grade fever (approximately 38°C) or fussiness for one or two days after having had the needle. Serious side effects from vaccination are rare.

There are many myths circulating about vaccines. One myth is that the MMR vaccine (measles, mumps, rubella) causes autism. Two comprehensive research studies have dispelled that myth. We encourage individuals to inform themselves and to get immunization information from reputable sources.

### References

1. *Canadian Immunization Guide. Public Health Agency of Canada*
2. Gold, R. (2006). *Your Child's Best Shot – A parent's guide to vaccination, (3<sup>rd</sup> edition.)*, Canadian Paediatric Society.

## INFORMATIVE WEBSITES

To learn more about vaccine safety and current research addressing myths related to vaccination, visit any of these reputable websites:

- **Centers for Disease Control and Prevention**  
[www.cdc.gov/od/science/iso/concerns.htm](http://www.cdc.gov/od/science/iso/concerns.htm)
- **Canadian Paediatric Society**  
[www.cps.ca](http://www.cps.ca)
- **National Advisory Committee on Immunization (NACI)**  
[www.hc-sc.gc.ca/pphb-dgspsp/naci-ccni](http://www.hc-sc.gc.ca/pphb-dgspsp/naci-ccni)
- **Public Health Agency of Canada**  
[www.phac-aspc.gc.ca/publicat/ccdr-rmtc](http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc)

H



Part 3:

Illness in  
Schools or  
Daycares

J



K



# MANAGING ILLNESS

It's inevitable. In any school or daycare, no matter how careful you are, there will be cases of infections and illnesses. Limited immune defense and easy transmission of infection make children in group settings susceptible to many diseases. This section provides guidelines on how to manage illness in a school or daycare.

## PROPER SURVEILLANCE

School and daycare personnel need to be able to recognize illness early on. The importance of this is demonstrated in outbreak situations where early identification of ill children can help prevent further spread of infection.

### Steps to ensure proper surveillance:

- 1. Observe children upon arrival at school or daycare.**  
Greet children upon their arrival. Look for signs and symptoms of illness discussed in this section. Determine the need to isolate or exclude children based on the symptoms they present.
- 2. Active surveillance throughout the day.**  
Staff should actively observe children during the day for signs or symptoms of illness. Pay special attention to vomiting and diarrheal episodes. Again, determine the need to isolate or exclude based on the symptoms they present as discussed in the following pages.

## TIPS FOR SUCCESS

- Have written policies in place for handling illness in your establishment.
- Ensure that parents or guardians are aware of and understand your policies before they register their children in your institution.
- Advise parents or guardians to have alternate plans or arrangements in case their child gets sick and needs to be picked up. This includes the name, address, and phone number of an alternate contact.

If there is a student or child in the school or daycare with cancer, leukemia, or another immune deficiency, notify the parents or guardian when infectious rashes and other contagious diseases occur in other children.

## WHO TO NOTIFY WHEN CHILDREN ARE ILL

**Parents or guardians** need to be notified if their children are ill as they may need to be picked up. Also, parents or guardians of other children may need to be informed if their child has been exposed to a specific infectious disease.



# MANAGING ILLNESS

Just as health care providers are required to report occurrences of certain diseases to **Public Health Sudbury & Districts**, it is strongly recommended that school or daycare personnel call public health when a child is diagnosed with a reportable disease.

- Childcare centres must notify Public Health as soon as possible in the event that an unusual number of children are ill (for example, an outbreak).
- Schools are not required to contact Public Health to report an increase in ill children; however it is recommended they contact Public Health for guidance. Illness related absenteeism is monitored by Public Health and the principal or designate will receive an alert email or phone call when absenteeism is higher than expected.

## EXCLUSION AND ISOLATION

Isolation and exclusion are often used to prevent the spread of infection throughout your school or daycare.

**Isolation is the physical separation of the ill child from other children.**

Space should be made available for temporary isolation. Isolation is used as a temporary solution so that the ill child does not interact with other children while he or she is infectious. Isolation should not be used as a long-term solution. Once the illness has been identified, the child should be isolated until he or she can be picked up by parents or guardians.

**Exclusion is the physical removal of an ill child or staff from the child care centre and is needed to prevent the spread of infection.**

For some infections, exclusion is not effective because depending on the type of illness, germs can spread before signs and symptoms develop. However, other infections can still spread after the symptoms have stopped. As a result, certain conditions require exclusion while others do not.

It is important to note that while it is strongly recommended, Public Health does not require schools to exclude ill children or staff. Daycares however are required to follow the exclusion requirements listed for certain infections. This section addresses signs of physical illness and the actions that should be taken.

## REPORTING COMMUNICABLE DISEASES

Two forms were created for your use in reporting communicable disease: *Immediate Reporting of Communicable Diseases*, and *Monthly Reporting of Communicable Diseases*. They are located at the end of this manual.



# MANAGING ILLNESS

The monthly report can be faxed or mailed to Public Health Sudbury & Districts at the end of each month identifying those children who have been diagnosed with a communicable disease. If the school or daycare experiences no cases, a “nil” report is to be faxed.

Immediate reporting is required of certain diseases, and it must be done as soon as possible by fax or phone to Public Health Sudbury & Districts.

Section 28 of the ***Health Protection and Promotion Act***, requires the principal of a school to report certain diseases to the Medical Officer of Health (List of *Diseases of Public Health Significance in Ontario, Appendix A*). If a staff member or child is diagnosed with a disease of public health significance, Public Health Sudbury & Districts must be notified.

Daycares are also required to notify Public Health Sudbury & Districts immediately if two or more children experience two or more episodes of diarrhea and/or vomiting in the same time period (for example, within 48 hours).

## OVER-THE-COUNTER DRUGS

Over-the-counter (OTC) drugs are sold in pharmacies and other stores without a doctor’s prescription. There are dozens of OTC drugs on the market for common cold symptoms, such as a runny nose, congestion, sore throat, headache, or cough.

But just because they are easy to get doesn’t mean that they always work, or that they are safe. The best treatment for a cold is still plenty of rest and liquids.

Do not give cough and cold medications to babies and children under 6 years old unless guardian has consulted with a health care provider and directed the centre to do so. The only exceptions are drugs used to treat fever (such as ibuprofen and acetaminophen). Never use more than one product at the same time unless advised by a doctor.

# CHICKENPOX

Chickenpox (also known as varicella) is a highly contagious infection caused by the varicella-zoster virus. It is most common in children and is usually mild but can be very uncomfortable. The infection is more severe in teenagers and adults than in children. Chickenpox can be very serious or even life-threatening to newborn infants and anyone with immune system problems.

## What are the symptoms of chickenpox?

- Chickenpox begins with a fever, runny nose, cough, and muscle aches.
- In one or two days, a very itchy rash develops.
- The rash starts with red spots that soon turn into fluid-filled blisters.
- New blisters may form during the next few days.
- A few days later, crusts form over the blisters.

## How is chickenpox diagnosed?

A health care provider can usually diagnose chickenpox by looking at the rash and asking questions about the child's medical history.



### Keep in mind . . .

If parents are planning to take their child to a health care provider, contact the office in advance that the child might have chickenpox and can take appropriate precautions to avoid exposing other children to chickenpox.

## Are there complications with chickenpox?

- Scarring is a common complication when the blisters get infected or if the child scratches too much.
- Children with chickenpox can get pneumonia or other serious complications.
- Necrotizing fasciitis (flesh-eating disease) is an uncommon but serious complication of chickenpox in young children.
- The family of a child with immune system problems should be informed immediately if there is a case of chickenpox at school or daycare.



### Pregnancy and chickenpox

Chickenpox can be a problem for pregnant women and their infants. A pregnant woman with chickenpox can pass it on to her infant before and after birth. If a pregnant woman contracts chickenpox early in her pregnancy, there is a small chance that it will harm the unborn child. If the mother has chickenpox just before or after having a baby, the newborn may get a very bad case of chickenpox.

# CHICKENPOX

## How does chickenpox spread?

The chickenpox virus spreads easily through the air when an infected person breathes, coughs, or sneezes. It can also spread through direct contact with the fluid in a chickenpox blister. It is difficult to stop the spread of chickenpox.



It can take two or three weeks to become sick once exposed to the chickenpox virus. Chickenpox is infectious for one to two days before the onset of the rash and most infections from 12 to 24 hours before the rash appears. The virus can be spread until the lesions have crusted and dried (usually about 5 days).

## Can chickenpox be treated?

There is no specific treatment for chickenpox. Generally, symptoms of chickenpox can be minimized with bed rest, fluids, and medications such as acetaminophen (Tylenol®) to reduce fever.

Avoid giving medications containing acetylsalicylic acid (ASA) like Aspirin® to children. It can cause a rare but serious illness in children called Reye's syndrome.

## Dealing with discomfort

- Use cool wet compresses on the rash; do not rub the skin. Or, put calamine lotion on itchy areas (but don't use it on the face, especially near the eyes).
- Serve foods that are cold, soft, and bland because chickenpox in the mouth may make drinking or eating difficult. Avoid feeding the child anything highly acidic or especially salty, like orange juice or pretzels.
- Parents should ask their health care provider or pharmacist about using over-the-counter medication for itching.
- As much as possible, discourage children from scratching. This can be difficult for them so consider putting mittens or socks on the child's hands to prevent scratching during sleep.
- Fingernails should be kept trimmed and clean to help lessen the effects of scratching, including broken blisters and infection.

## Can chickenpox be prevented?

It is difficult to stop the spread of chickenpox. Unless someone is immunized, the only other way to stop the spread of the virus is to stay away from an infected person. This is usually not possible within a family.

To minimize the spread, people with chickenpox should wash their hands often (*page 1-5*), and avoid touching or scratching the blisters.

# CHICKENPOX



## **This is a vaccine preventable disease!**

The varicella vaccine is provided free of charge to healthy children aged one year and older as part of routine immunization. People of any age who have certain health conditions, have not had chickenpox are also eligible for free varicella vaccination.

## **What should I know about the varicella vaccine?**

Also called the chickenpox vaccine, it is routinely given in two doses. The first dose is usually given at 15 months of age. The second dose of varicella vaccine is given as part of routine immunization between four to six years of age in a combined vaccine that also includes vaccination against measles, mumps, and rubella (MMRV vaccine).

Healthy children who have had chickenpox do not need the vaccine. They usually have lifelong protection against the illness. An infant who has had chickenpox before their first birthday should still get the varicella vaccine to make sure that they do not get chickenpox again.



## **Keep in mind . . .**

There is a chance that children who have been immunized will still get chickenpox but the symptoms are usually much milder than those who have not received the vaccine.

If a child who has never had chickenpox is exposed to an infected child, vaccination within 72 hours of exposure to chickenpox will either prevent illness altogether or greatly reduce the severity of the illness. Call your health care provider or Public Health Sudbury & Districts for more information.



## **Pregnancy, varicella vaccine, and immune globulin**

The effects of the varicella vaccine on the fetus are unknown; therefore pregnant women should not receive the vaccine. If you are pregnant and have never had chickenpox, call your health care provider as soon as you have been exposed to the disease.

If you have not had chickenpox before, your health care provider can give you an injection (Varicella zoster immune globulin [VZIG]) that is different from the vaccine and that may help protect you from getting chickenpox. You must have the shot of immune globulin no later than 96 hours (four days) after exposure to chickenpox.

# CHICKENPOX



## **Keep in mind . . .**

All adult women who have never had chickenpox should ask their health care provider about the chickenpox vaccine.

## **Medication for people at high risk of complications from varicella virus**

There is an antiviral medication for people with a high risk of complications if they get chickenpox or shingles. This medication is available for the following at-risk individuals:

- people over 13 years of age
- children over one year of age with chronic skin or lung disorders
- children on chronic aspirin treatment
- pregnant women
- people with immune system problems

This medication must be prescribed by a health care provider and given within 24 hours after the rash develops. It is not recommended for healthy children who get chickenpox.



## **OK to go!**

Children with chickenpox may go to school or daycare if they have no fever and if they feel well enough to participate in regular activities regardless of the state of the rash.



## **This disease must be reported in Ontario!!**

A monthly report of the number of cases of chickenpox is required. Schools and daycares can report by mail or fax using the *Monthly Reporting of Communicable Diseases* form (*Resource Section*) to Public Health Sudbury & Districts.

# COLD SORES

Cold sores are a viral infection caused by the herpes simplex virus type-1 (HSV-1). HSV-1 usually causes an infection in or around the mouth, which is often called “cold sores” or “fever blisters”. Triggers that stress the body (and lower the immune system) can cause the virus to reoccur such as, getting a cold or the flu, lack of sleep, or staying in the sun too long.

## What are the symptoms of cold sores?

- Cold sores are groups of small blisters on the lips and around the mouth.
- The skin around the blisters is often red, swollen, and painful.
- The blisters can break open, leak a clear fluid, and then scab over after a few days. They usually heal after several days to two weeks.
- The first time children are infected with HSV-1, they may not feel ill.
- Other children will get very sick and may have a high fever, swollen glands, and painful sores in or around the mouth. They may be sick for a week or more.
- The sores may hurt so much that the child will have difficulty eating or drinking, and will need medical care.

## How do cold sores spread?

Cold sores spread by direct contact with the sores or the infected fluids from the mouth of someone with the virus. Touching the sores or saliva from the mouth of someone with herpes simplex can spread the virus. Kissing is a great example of how the virus can spread.



### Keep in mind . . .

People with HSV-1 can spread the virus even if they have no visible sores or symptoms.



After contact with the herpes virus, the amount of time between contact with the virus and the appearance of the symptoms is 2 to 12 days (average four days). Cold sores are contagious from the first sign of symptoms until it is healed.

## Can cold sores be treated?

- Once people are infected with a herpes virus, they have it for life.
- Some people will have recurrent cold sores, though the sores may be less severe as a person gets older.
- The herpes simplex virus that causes cold sores cannot be cured but it can be managed.

# COLD SORES

- Most cold sores will usually start to heal on their own within a few days.
- Certain medications are available to reduce the number of lesions, the length of time a lesion is present, and the severity of cold sores.
- The treatment available may include skin creams, ointments, or pills.
- Many cold sore medications are available over-the-counter at a pharmacy however a health care provider may need to be consulted as some medications are available by prescription only.
- Parents of children with cold sores should contact their health care provider.

## Can cold sores be prevented?

There is no vaccine against herpes simplex type 1. Therefore it is important to take precautions to prevent the virus from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*).
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Avoid kissing or nuzzling a child when a cold sore is present.
- Avoid putting your fingers in the child's mouth when a cold sore is present.
- Teach children not to touch or scratch the sores and to wash their hands often.
- Discourage children from sucking their thumbs to avoid spreading the disease to their hands.

Keep in mind that there are triggers or conditions that stress the body and can cause the virus to reoccur such as a fever, getting a cold or the flu, lack of sleep, staying in the sun too long, or exposure to cold weather, and dry air and wind that dry out the lips.

## Here are some things that can help prevent cold sores:

- Use a sunscreen on the face and hydrating lip balm with an SPF 15 or higher.
- Keep hydrated by drinking plenty of water.
- Use gentle, moisturizing cleansers and hydrating lotions to keep the skin moist.
- In cold, dry weather, cover and protect your face and mouth with both a moisturizer and a scarf.
- Wear lip balm when outside to guard against the drying effects of cold wind.



### OK to go!

Children with cold sores may go to school or daycare if they feel well enough to participate in regular activities. Children with mouth ulcers who are drooling should stay home until they are well enough that they can eat and participate comfortably in regular activities.

# COMMON COLD

Colds are infections of the respiratory tract caused by over 100 different viruses. Colds are very common. Young children can have as many as 8 to 10 colds each year before they turn two years old. Colds tend to be more common in fall and winter when children are in closer contact indoors. It may seem like a child has one cold after another all winter. Once you have had a cold virus, you become immune to that virus, so children get fewer colds as they get older.

## **What are the symptoms of the common cold?**

- runny nose and sneezing
- nasal congestion
- coughing
- decreased appetite
- mild fever
- headache
- mild sore throat
- more tired than usual

More often, children are not very sick and have only a cough, runny nose, and sneezing. A child with a cold can still play outside during winter months. At times, a child with a cold may have a high fever and may not feel like eating or playing. As a cold gets better, it is normal to have a runny nose.

## **How is the common cold diagnosed?**

Simple sniffles in children are not usually a matter for a parent to seek a health care provider. It is easy to self-diagnose a cold because they are so common. Influenza (flu) differs from a cold, since influenza causes a high fever and muscle aches. The child may not have a runny nose or nasal congestion and would be much sicker.

If the child's symptoms worsen instead of improving, the parent/guardian should have the child assessed by a health care provider, especially if the child has any type of chronic medical problem, such as lung or heart condition.

A health care provider can examine the child's throat and ears, and listen to the child's heart and lungs. A throat swab or nasopharyngeal swab (throat and nasal swab) may be taken to make sure the symptoms are not caused by another condition that may need specific treatment.



# COMMON COLD

## Are there complications with the common cold?

Once in a while, a cold can lead to problems such as ear infections, sinusitis, bronchitis, or pneumonia. Monitor the child for the following signs and symptoms:

- earache
- fever with a temperature higher than 39°C
- rash
- very sleepy
- very cranky, fussy, or cries more than usual
- fast breathing or has trouble breathing
- a cough that will not go away

Monitor the child's temperature and call the child's parent/guardian if the symptoms get worse. Make sure that the child gets plenty of rest and lots of fluid to drink.

## How does a cold spread?

Colds spread easily from person to person. When a child with a cold coughs or sneezes or spits, droplets containing the virus can spread through the air to other people.

Cold viruses can be in the mucus or saliva and children can spread them by touching each other or by touching objects such as toys or tables. Cold viruses can live for hours on these objects. If children have the virus on their hands and then touch an object, other children can get the virus by touching the same object and putting their hands into their eyes, nose, or mouth.



Incubation periods for cold viruses range between 12 hours to 5 days, usually 48 hours. A cold usually lasts for four to seven days. People with colds can spread the virus from one day before to five days after the start of symptoms.

## Can the common cold be treated?

There is no cure for the common cold. An antibiotic will not help with a cold since colds are caused by viruses, not bacteria. A cold usually goes away on its own. Make sure that the child gets plenty of rest, lots of fluids to drink, and frequent small nutritious meals, like chicken soup.

## Dealing with discomfort

- Keep the child as comfortable as possible
- Offer plenty of fluids and small, nutritious meals.
- Use petroleum jelly on the skin under the nose to soothe rawness.

# COMMON COLD

- Acetaminophen (Tylenol®) or ibuprofen (Advil®) can make the child feel better and more comfortable. Ibuprofen should only be given if the child is drinking reasonably well.
- Clear nasal congestion with a bulb syringe or saline (saltwater) nose drops.



## **Pay careful attention!**

Although parents may be tempted to give their child over-the-counter medications from the pharmacy to try to ease the cold symptoms, there is little or no evidence to support that these medications are effective. In fact, these medications may cause harmful side effects in children.

## **Can the common cold be prevented?**

Since so many viruses cause colds, there is no vaccine to prevent them. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1-15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1-8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## **OK to go!**

Children with colds may go to school or daycare if they feel well enough to participate in regular activities.

# CROUP

Croup is an infection of the throat and vocal cords and is caused by viruses. When children under five years of age have the infection, it is called croup.

In older children, it is called laryngitis.

## **What are the symptoms of croup?**

- Croup starts with cold-like symptoms, then a fever and a cough.
- The lining of the throat and vocal cords becomes red and swollen.
- The child develops a weak, hoarse voice, and a cough that sounds like a bark.
- Sometimes the air passage is also swollen and children find it hard to breathe.
- The child's breathing may be rapid and noisy.
- Symptoms often get worse at night.
- The child may be very tired and not interested in regular activities because it is harder to breathe.

## **How is croup diagnosed?**

A health care provider can usually diagnose croup by listening for the telltale barking cough and the high-pitched wheezing sound made when the child breathes in or out.

The health care provider will also ask the parent if the child has had any recent illnesses involving a fever, runny nose, and congestion, and if the child has a medical history of croup or upper airway problems.

## **Are there complications with croup?**

The vast majority of children recover from croup with no complications. Rarely, a child can develop a bacterial infection of the upper airway, or pneumonia. In a very bad case of croup, the child cannot breathe.

Some children get so sick that they need to be treated in a hospital.

## **How does croup spread?**

The viruses that cause croup spread in droplets coughed, sneezed, or breathed into the air. The viruses can be in the mucus or saliva and children can spread them by touching each other or by touching objects such as toys or tables.

# CROUP

The viruses can live for hours on objects.



The incubation period is from 2 to 14 days. Children with croup are contagious for the first days of illness (from the onset of symptoms) and for as long as there are signs of illness and fever.

## Can croup be treated?

An antibiotic will not help with croup because it is caused by viruses, not bacteria. As with most illnesses, rest and plenty of fluids to drink are recommended.

- Acetaminophen (Tylenol®) or ibuprofen (Advil®) can make the child more comfortable. Ibuprofen should only be given if the child is drinking reasonably well.
- Clear nasal congestion with a bulb syringe or saline (saltwater) nose drops.
- In the cooler months, taking the child outside for about 10 minutes to breathe in the cool air can also ease symptoms.

## Can croup be prevented?

There is no vaccine to prevent croup. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1-15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1-8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.

# CROUP

## When to advise a parent or guardian

Call and advise a parent/guardian to consult with a health care provider if the child:

- has troubled or rapid breathing
- has trouble swallowing or eating
- is vomiting
- has a fever lasting more than 72 hours, or is under six months old and has a fever
- has a severely sore throat
- has new or increased amounts of drooling



### OK to go!

Children with croup can go to school or daycare if they feel well enough to participate in regular activities.

# DIAPER RASH (CANDIDA)

*Candida* diaper rash is a very common infection in infants and toddlers that causes irritation on the genital and buttocks areas. The genital and buttocks areas provide optimum growing conditions. It is caused by the overgrowth of yeast (a type of fungus) called *Candida albicans*.

*Candida* overgrowth mostly occurs in moist and warm areas of the body causing oral thrush in the mouth (page 3-100) or diaper rash in the genital and buttocks areas.

A diaper rash that lasts more than two days, even with frequent diaper changes, and that does not respond to traditional diaper rash treatments, might be caused by *Candida*.

Most people (including infants and children) naturally have *Candida* fungus in their mouths, digestive and intestinal tracts. The amount is controlled by a healthy immune system and “good bacteria”. If the immune system is weakened due to illness, stress, medication, or it is not fully developed (as is the case in infants), the *Candida* fungus can overgrow and lead to an infection.

Antibiotics administered to an infant, or a breastfeeding mother may cause *Candida* diaper rash in the infant as the antibiotics are transferred to the infant through the mother’s breast milk. The *Candida* fungus overgrows by killing off all “good” bacteria by the antibiotic.

## **What are the symptoms of *Candida* diaper rash?**

The rash appears as raised, red, sore-looking blisters or scalded-looking buttocks. It may also be covered by a white film. Sometimes there can be sores on the lower abdomen and upper thighs.

## **How is *Candida* diaper rash diagnosed?**

If the rash persists, increases or if the sores appear on the child’s skin, the parent should consult a health care provider. *Candida*-related diaper rashes often can be diagnosed by the appearance alone.

## **How does *Candida* diaper rash spread?**

*Candida* infection is spread by touching feces, or fluids of the mouth, skin, and vagina. It can be passed on from mother to baby during childbirth. Transmission will likely occur when the lesions are present. It is usually not spread from person to person.



*Candida* diaper rash is usually seen two to five days after being in contact with the infection. *Candida* diaper rash is contagious for as long as it takes for the lesions in the genital and buttocks areas to heal.

# DIAPER RASH (CANDIDA)

## Can *Candida* diaper rash be treated?

Diaper creams like zinc oxide will not cure a yeast infection. Instead, a topical anti-yeast or antifungal cream (which may be prescribed by a health care provider) must be used. The rash should take only a few days to clear up. The cream is applied to the affected areas as indicated by the health care provider.

Wash your hands (*page 1-5*) to prevent further spread, and to avoid placing contaminated hands in the cream when applying it.

## Can *Candida* diaper rash be prevented?

There is no vaccine to prevent *Candida* infection, therefore it is important to take precautions to prevent the infection. The following guidelines can help schools and daycares with students who have special needs to prevent *Candida* diaper rash, and its spread.

- To prevent a diaper rash, change diapers often to prevent urine and stool from being in contact with the skin for too long.
- Clean the area thoroughly with mild soap and warm water when changing diapers.
- Rinse with clean water and allow the skin to completely dry before putting on another diaper.
- Apply barrier creams like zinc oxide or petroleum jelly to the diaper area after bathing or diaper change. These products can help minimize urine and fecal contact with the skin.
- Wash the child's hands (*page 1-5*) and your own hands after diaper changes.
- Avoid snug-fitting, airtight plastic pants, or plastic-covered diapers.
- Allow the child's skin to be open to the air as much as possible.



### OK to go!

Students or children with diaper rash may go to school or daycare if they feel well enough to participate in regular activities.

# DIARRHEA

Diarrhea is a common problem in children. Although it is usually mild and lasts for a short time, it can be very serious.

Diarrhea is usually caused by germs known as viruses, bacteria, and parasites.

## **What are the symptoms of diarrhea?**

Every child has a different pattern of bowel movements, so it is sometimes hard to tell if a child has diarrhea or just loose bowel movements.

**It is diarrhea if the child has more loose bowel movements than usual, OR bowel movements are more watery or unformed than usual.**

- A child with diarrhea may feel sick to his or her stomach and not want to eat.
- The child may also have a fever, stomach pains, nausea, or cramps.
- There may also be blood or mucus in the bowel movements.

## **Are there complications with diarrhea?**

Diarrhea can be harmful to the child because of the danger of dehydration, which occurs when too much fluid is lost from the body.

**Children with diarrhea must drink enough fluids to prevent dehydration!**

### ***Watch for signs of dehydration:***

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head



# DIARRHEA

## How does diarrhea spread?

Germs that cause diarrhea spread easily from person to person and especially from child to child in food and water, or through contact with feces and contaminated surfaces.

## Can diarrhea be prevented?

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1-15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.

## Handling a suspected case of diarrhea

- Separate the child from the group and watch for other signs of illness.
- Do not wash stool stained clothes. Place soiled articles in a sealed, waterproof, plastic bag, and return them to the parent/guardian.
- If no more episodes of diarrhea occur and the child does not appear to be ill, let the child return to the group and inform the parent/guardian at the end of the day.
- If another episode of diarrhea occurs, inform the child's parent/guardian as soon as possible and tell them to pick up the child.
- Clean and disinfect any area that was contaminated with stool (*page 1-16*).
- Wash hands thoroughly (*page 1-5*).
- Monitor other children for signs of diarrhea.



### Keep in mind . . .

If the child is also experiencing bouts of vomiting, refer to *Vomiting* (*page 3-105*) for further information.

# DIARRHEA

## Managing a suspected outbreak of diarrhea

If two or more children and staff experience two or more episodes of diarrhea and/or vomiting in the same time period (for example, within 48 hours):

- **Daycares** must notify Public Health Sudbury & Districts immediately.
- **Daycares** must initiate *Immediate Measures to Control an Outbreak: For Daycares (page 4–4)*.
- **Schools** may follow the recommendations of *Immediate Measures to Control an Outbreak: Recommendations for Schools (page 4–6)*.

## When to seek medical assistance

Parents should be advised to seek medical assistance, or bring their child to the hospital emergency department as soon as possible in cases that involve:

- a fever higher than 38°C
- repeated vomiting
- blood in bowel movements
- diarrhea lasting more than 48 hours
- abdominal pain that will not go away or is getting worse
- signs and symptoms of dehydration
- other unusual symptoms



### **No school or daycare!**

Children and staff with diarrhea and/or vomiting must NOT attend daycare until 48 hours after their symptoms have resolved. It is recommended that school-aged children NOT attend school until they are symptom-free for 48 hours.

# EAR INFECTIONS

Middle ear infections are also called otitis media. They are very common, especially in children between 6 months and 3 years of age. Viruses or bacteria (germs) cause middle ear infections. Most ear infections happen when a child has already had a cold for a few days. The eustachian tube connects the middle ear with the back of the throat. Germs travel from the back of the throat when the eustachian tube is swollen from a cold, causing infection in the middle ear. Young children have shorter eustachian tubes which can become inflamed more quickly than in older children and adults.

Some other factors can increase the risk of having ear infections including:

- exposure to cigarette smoke
- bottle feeding, especially if left lying
- attending daycare (exposure to more colds)
- allergies
- children with certain health conditions such as cleft palates

## **What are the symptoms of an ear infection?**

Colds and ear infections have some of the same symptoms such as a mild to high fever and loss of interest in eating or playing. Ear infections also cause earaches. Older children can tell you if they have an earache. Young children and infants may just become cranky and fussy or cry more than usual. They may rub or pull their ears. Children may be crankier when they lie down.

## **Are there complications with ear infections?**

Most ear infections are not serious. In some children, fluid collects in the middle ear. The fluid may last for as long as three months but the child may not have a fever or even an earache. The child's hearing may be affected but most children get better without any medical treatment. Others may need medicine or tubes in their ears to correct the hearing problem. Hearing loss in young children may need to be treated to prevent speech and language delay.

## **How does an ear infection spread?**

The germs that cause ear infections can be spread whenever an infected child coughs or sneezes. They can also be spread through direct contact whenever a child with an infection touches his or her saliva or runny nose and then touches another child.



Your child may not become ill until 2 to 14 days after being exposed to a virus. Contagious periods depend on the cause of the ear infection (cold virus, etc.)

# EAR INFECTIONS

## Can ear infections be treated?

Ear infections caused by bacteria may require antibiotics. Not every child with an ear infection will need an antibiotic. For children two years of age or older, the health care provider may recommend giving acetaminophen (Tylenol®) or another pain reliever for two to three days to treat the earache. However, if symptoms worsen, if new symptoms appear, or if there is no improvement in two to three days, parents should have a health care provider reassess their child immediately because they may need to start antibiotic therapy.

For children under two years of age, the health care provider may prefer to prescribe antibiotics and closely monitor the infant because it is hard to diagnose ear infection in such a young age group.

If an antibiotic is required, the child should feel better within a day or two. However, in order to cure the infection, it is very important that the child takes all the antibiotics that have been prescribed. The health care provider will usually want to check the ears again to make sure the infection is gone after the child has finished their prescribed antibiotic.

## Can ear infections be prevented?

Many ear infections are caused by the cold virus or other illnesses, therefore the steps to preventing the common cold are sufficient (*page 3–10*).



Vaccination with a pneumococcal vaccine called Prevnar®13 can also protect against acute ear infections caused by some types of pneumococcus bacteria.



### **OK to go!**

Children with ear infections may go to school or daycare if they feel well enough to participate in regular activities.

# FEVER

When a child is sick with an infection, it is common for them to have a fever. A fever usually goes away after 72 hours (three days). However, the child should be seen by their health care provider if their fever lasts for more than 72 hours.

Babies younger than six months old should be seen by their health care provider when they have a fever. The age of the child determines the best way to take their temperature. Refer to *Guidelines for Taking a Child's Temperature (Appendix C)*.

## **Handling a suspected case of fever**

- Keep the child comfortable. Isolate the child in a quiet area or room. Take the child's temperature.
- Note and record the time and the child's temperature; contact the parent/guardian and give them this information. Ask them to take the child home.
- Dress the child in light clothing. Avoid using heavy blankets.
- Offer the child cool, clear, fluids such as water often.
- Encourage the child to rest and take naps.
- Write down what the child did, appeared like, or said that made you think he or she was ill. This will help the parent/guardian explain to the health care provider what signs of illness the child has.

# FIFTH DISEASE

Fifth disease (*Erythema Infectiosum*) is an infection of the respiratory system caused by a virus called parvovirus B19. It is also referred to as “slapped cheek syndrome” because of the rash it causes. Fifth disease is more common in children than in adults.

## What are the symptoms of fifth disease?

Fifth disease can start with fever and muscle aches. A week or so later, a very red rash appears on the cheeks, making the face look like it has been slapped. In one to four days, a red lace-like rash appears on the torso, arms, and then on the rest of the body. The rash may last from one to three weeks and may come and go. It can be worse with changes in temperature, exposure to sunlight or exercise.

The illness is often very mild. Sometimes a child may not even feel sick. Adults usually get a more severe case with fever and painful joints. At least 50% of adults have had fifth disease in childhood and will not get it again if exposed to a child with the infection.

## How is fifth disease diagnosed?

A health care provider can usually diagnose fifth disease by the distinctive rash on the face and body. It can also be confirmed by a blood test.

## Are there complications with fifth disease?

Fifth disease may be more serious for some people. People with immune system problems, people taking chemotherapy, people with sickle cell anemia or some other forms of anemia, and pregnant women should contact their health care provider if they get fifth disease:



### Pregnancy and fifth disease

Generally, most pregnant women experience no serious complications if they are exposed to fifth disease. About half of all women are already immune to the virus due to a previous exposure. Those who get sick usually experience mild symptoms with no ill effects to the fetus.

For some women though, fifth disease can lead to severe anemia in the fetus and may even cause a miscarriage. The risk is higher for women in the early stages of pregnancy and occurs in less than 5%.

Women who are or who may become pregnant should contact their health care provider to have a blood test to assess if they are immune to fifth disease. If a pregnant woman suspects having been exposed to the virus, she should contact her health care provider.

# FIFTH DISEASE

## How does fifth disease spread?

Fifth disease is spread through droplets in the air after someone with fifth disease has breathed, coughed, or sneezed. It can spread by direct contact with the saliva of an infected person. Pregnant women can spread fifth disease to their developing babies.



The incubation period of fifth disease can be as short as four days or as long as three weeks. Once the rash appears, fifth disease is no longer contagious (one to four days).

## Can fifth disease be treated?

There is no specific treatment for this illness. Generally, symptoms of fifth disease can be minimized with bed rest, fluids, and medications to reduce fever.

## Can fifth disease be prevented?

There is no vaccine to prevent fifth disease. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



### OK to go!

Children with fifth disease may go to school or daycare if they feel well enough to participate in regular activities.

# HAND, FOOT, AND MOUTH DISEASE

Hand, foot, and mouth disease is an infection caused by certain types of Coxsackieviruses, or enteroviruses. It is not the same as foot and mouth disease that affects animals. Anyone can get hand, foot, and mouth disease but it is most common in children. It usually occurs in the summer and fall and is not usually serious.

## **What are the symptoms of hand, foot, and mouth disease?**

- fever
- headache
- sore throat
- lack of energy
- lack of interest in playing or eating
- poor appetite
- small, painful sores (ulcers) in the mouth
- rash (that develops over one to two days)

The rash may be flat or have raised red spots with a small blister on top. The rash is usually on the palms of the hands and soles of the feet but may affect other body parts.

## **How is hand, foot, and mouth disease diagnosed?**

There is no blood test to confirm hand, foot, and mouth disease. Diagnosis is based on the appearance of the rash.

## **Are there complications with hand, foot, and mouth disease?**

It may be painful for children to drink when they have sores in their mouth.

### ***Watch for signs of dehydration:***

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head



# HAND, FOOT, AND MOUTH DISEASE



## **Pregnancy and hand, foot, and mouth disease**

Hand, foot, and mouth disease is rare in adults since most adults have developed antibodies against it from previous exposure. The risk of contracting the illness during pregnancy is very low. If a pregnant woman contracts hand, foot, and mouth disease, the risk of complications (miscarriage) is very low.

If a pregnant woman is infected just before her delivery, the infection can be transmitted to the newborn by contact during the delivery. In that case, the newborn will suffer from a mild illness. Rarely, the infection can affect the newborn's organs causing occasionally severe complications.

## **How does hand, foot, and mouth disease spread?**

The virus spreads from person to person in droplets that are coughed, sneezed, or breathed into the air by someone with the infection, or by contact with the stools of someone with the illness.

The infection can also be spread by touching objects such as toys or tables that have the virus on them, and then touching your eyes, nose, or mouth.



The incubation period is usually three to five days. The virus can be found in a person's stools for four weeks after the start of illness. The disease is most contagious during the first week of illness, and continues to be contagious until the sores are healed.

## **Can hand, foot, and mouth disease be treated?**

There is no specific treatment for this illness. Symptoms of hand, foot, and mouth disease can be minimized with bed rest, medications to reduce fever, and plenty of fluids. People usually start to feel better in three to five days, and it can take 7 to 10 days for the spots to disappear.

Children with sores in their mouth may not want to drink because of the pain. Avoid acidic drinks like orange and apple juice because it will sting. Diluted fruit juices are a good option, however water is best. Popsicles can provide fluids and soothe the mouth sores. Cooler liquids are best and anything hot may worsen the pain caused by the sores.

If the pain from the sores makes it difficult to feed an infant, try offering smaller and more frequent feedings to ensure proper nutrition and hydration.

# HAND, FOOT, AND MOUTH DISEASE



## Pregnancy and treatment

There are no special tests or treatments for pregnant women who have been in contact with someone who has hand, foot, and mouth disease.



## Keep in mind . . .

Like the common cold, the child will develop immunity against the virus. However, several strains of the disease exist therefore hand, foot, and mouth disease can reoccur from a different strain.

## Can hand, foot, and mouth disease be prevented?

There is no vaccine to prevent hand, foot, and mouth disease. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## OK to go!

Children with hand, foot, and mouth disease may go to school or daycare if they feel well enough to participate in regular activities.

# IMPETIGO

Impetigo is a skin infection that is common in children. It is caused by bacteria [*Streptococcus* (strep) or *Staphylococcus* (staph)] that enter the skin through scrapes, cuts, or insect bites. The infection is most common in the summer. Although impetigo is more common in children, those living in crowded conditions, playing contact sports, or have other skin problems are at increased risk.

## What are the symptoms of impetigo?

- The infection appears as a skin rash that looks like a group of blisters.
- The blisters are surrounded by a red circle and are filled with pus.
- When the blisters burst and fluid starts oozing, they get a honey-colored crust, many germs live under this crust.

Usually, the sores first appear near the nose or mouth, but can then spread on the face and sometimes to the rest of the body (ears, scalp, neck, and hands) or parts of the skin that are not covered by clothing.



### Keep in mind . . .

Some people think children get impetigo because they do not wash properly. This is not true.

## How is impetigo diagnosed?

A health care provider can usually diagnose impetigo based on the appearance of the rash. To confirm which germ is causing the infection, the health care provider will take a sample or swab from the rash.

## Are there complications with impetigo?

Impetigo typically isn't dangerous. The infection may cause permanent scarring. Untreated impetigo caused by streptococcal bacteria may result in a serious complication called nephritis, which is a serious and possibly deadly kidney disease. Other complications include cellulitis and MRSA (*Methicillin-resistant Staphylococcus aureus*, page 3–53).

## How does impetigo spread?

Impetigo is spread by direct contact with a sore or when someone touches the rash and then touches another person. The germs can also be transferred to items that have had contact with infected skin, such as bed sheets, towels, facecloths, blankets, or clothing. Others may also develop an infection if they use these items.



The incubation period is from one to three days. Impetigo spreads as long as there is pus in the sores or until 24 hours after starting prescribed treatment.

# IMPETIGO

## Can impetigo be treated?

Impetigo is treated with antibiotics that may be given by mouth or applied on the skin in the form of an ointment. The treatment is available by prescription only from a health care provider.



### Keep in mind . . .

Keep taking the oral antibiotic for the prescribed amount of time, even if the rash goes away before the medication is finished.

## Can impetigo be prevented?

There is no vaccine to prevent impetigo. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Avoid sharing blankets, bed sheets, towels, facecloths, clothing, or other items among children and staff. All articles which were in contact with infected skin should be washed in hot water and detergent then dried at a high temperature.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Gently wash the areas of infected skin with soap and water.
- To prevent the child from spreading blisters to other parts of the body, keep the infected areas of skin covered with gauze and tape or a band-aid.
- Keep affected areas clean and covered to prevent them from becoming infected.
- The child's fingernails should be kept short and clean to prevent the child from scratching the blisters or sores.



### No school or daycare!

Children with impetigo should NOT go to school or daycare until the antibiotic treatment prescribed by the health care provider has been taken for at least 24 hours.

# INFLUENZA (THE FLU)

Influenza, commonly known as “the flu,” is a highly contagious infection of the respiratory tract caused by the influenza virus. Influenza outbreaks happen every year, usually between November and April. Because the influenza viruses change—often from year to year—people are not immune for very long. For this reason, people can contract the flu more than once.

The term “seasonal flu” is used for the influenza viruses that spread every year. Influenza is more serious than a cold. It affects all age groups, though children tend to get it more often than adults.

## **What are the symptoms of influenza?**

- fever and chills
- headache
- body aches
- feeling weak
- sneezing, coughing, and stuffy nose
- sore throat
- fatigue
- loss of appetite

Young children may sometimes not want to eat because they have an upset stomach. They may vomit and have changes in their bowel movements. Children under five years of age may not have a fever.

## **How is influenza diagnosed?**

Because influenza symptoms are very different than the common cold, a health care provider can determine the diagnosis based on medical history, a physical exam, and the presence of symptoms. The health care provider confirms the diagnosis through the collection of a nasopharyngeal swab (a sample from the back of the nose and throat).

## **Are there complications with influenza?**

Most healthy people recover from the flu without any serious problems. However, the danger of influenza is that it makes the body weak and vulnerable to other infections such as pneumonia, which is a serious lung infection. Other complications may include bronchitis, kidney failure, or heart failure. Anyone can contract the flu but some people are more likely than others to have complications from the flu. Influenza is usually most dangerous in very young children (under two years of age), and the elderly (65 years and older). The elderly have the highest rate of hospitalization and death from the flu.

# INFLUENZA (THE FLU)

Children and adults with the following medical problems are also at higher risk of complications from influenza.

- heart or kidney disease
- breathing problems (like asthma)
- diabetes
- immune system problems
- conditions treated for long periods with acetylsalicylic acid (ASA), like Aspirin®
- pregnant women



## **Pregnancy and influenza**

Influenza is more likely to cause severe illness in pregnant women than in women who are not pregnant. Changes in the immune system, heart, and lungs during pregnancy make pregnant women more prone to severe illness from flu as well as hospitalizations. Pregnant woman with the flu also have a greater chance for serious problems for their unborn baby, including premature labor and delivery.

## **How does influenza spread?**

Influenza is spread in droplets that are coughed, sneezed, or breathed into the air by an infected person. The illness can also spread by contact with objects, such as toys or tables that a person with influenza has touched, coughed, or sneezed on.



The incubation period is usually one to three days (average two days). Influenza can be contagious for seven days after symptoms have appeared. For children and the very ill, it can be up to 10 days.

## **Can influenza be treated?**

Antibiotics will not stop the influenza virus, but sometimes are needed if the child develops another infection. Antiviral medications are available for persons at high risk of developing complications from influenza.

## **Can influenza be prevented?**

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.

# INFLUENZA (THE FLU)

- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## **This is a vaccine preventable disease!**

The influenza vaccine (flu shot) is provided free of charge to all individuals living in Ontario who are six months of age or older.

## **What should I know about the influenza vaccine?**

The vaccine is very important for children who are at high risk of complications from the flu (children under two years of age and children with chronic health conditions). It is also important that parents and school and daycare staff get the flu shot every year to reduce the risk of spreading the flu to family members and to children in their care.



## **Pregnancy and influenza vaccine**

Flu shots will protect pregnant women, their unborn babies and even protect the baby after birth.

## **Caring for a child with influenza**

- Keep the child as comfortable as possible.
- Make sure that the child gets plenty of rest, plenty of fluids to drink, and eats small nutritious meals.
- If a fever is present, dress the child in lightweight clothing and keep the room comfortable at 20°C (68°F).
- Use pain relievers such as acetaminophen (Tylenol®) or ibuprofen (Advil®). Ibuprofen should not be given to infants under six months of age without first consulting with a health care provider.

# INFLUENZA (THE FLU)

## When to seek a health care provider or medical assistance

The parent/guardian should take their child to a health care provider if the child has any of the following medical conditions or symptoms:

- has an underlying heart or lung disease or a chronic medical condition requiring medical treatment.
- has a weak immune system from an illness or from receiving treatments.
- is taking acetylsalicylic acid (ASA), like Aspirin® regularly for a medical condition.
- is younger than six months of age and has a temperature of 38°C or higher for over 12 hours, and acetaminophen (Tylenol®) does not help the fever go down.

**Seek immediate medical assistance at the hospital emergency if the child is having any of the following symptoms:**

- high fever with ill appearance
- difficulty breathing or is breathing very rapidly
- shows signs of dehydration (*Appendix B: Signs of Dehydration*)
- lips or fingernails appear blue
- irritable and will not calm down
- lethargic, is limp or unable to move
- difficult to wake up or does not respond
- has a stiff neck or seems confused
- vomiting for more than four hours or has severe diarrhea
- any other serious problem or symptom



### **No school or daycare!**

Keep children with influenza at home until their fever is gone and they are well enough to participate in regular activities. On average, a six or seven day period is a sufficient amount of time to prevent the child from spreading the virus to other children.



### **This disease must be reported in Ontario!!**

Report all cases of influenza to Public Health Sudbury & Districts.



# MEASLES

Measles is a highly contagious disease caused by the measles virus. The disease is more severe in infants and in adults over 20 years of age. Measles is much less common since the routine immunization of children against measles began.

## What are the symptoms of measles?

- high fever
- hacking cough
- runny nose
- watery eyes
- red and irritated eyes
- sensitivity to light
- Koplik's spots (small, red spots with blue-white centers that appear inside the mouth)
- small, red spots in the mouth
- a red or reddish-brown blotchy rash that starts on the head and face, then spreads to the rest of the body
- young children may also develop diarrhea or an ear infection with measles

## How is measles diagnosed?

Measles diagnosis is based on medical history, a physical exam, and presence of symptoms. Other viruses can cause symptoms that are similar to measles, therefore testing is needed to detect the measles virus. The health care provider will collect a nasopharyngeal swab (a sample from the back of the nose and throat), a blood test, or a urine sample to confirm the diagnosis. Blood tests are also done to confirm if a person is immune to the disease.



### Keep in mind . . .

If parents are planning to take their child to a health care provider, the office should know in advance that the child might have measles and can take appropriate precautions to avoid exposing other people to measles.

## Are there complications with measles?

The illness may cause complications such as ear infections and pneumonia. In certain cases, very serious complications may occur such as deafness, convulsions, and encephalitis (an infection of the brain) possibly causing brain damage.



### Pregnancy and measles

Measles infection during pregnancy can result in a higher risk of premature labour, miscarriage, stillbirth, and low birth weight infants.

# MEASLES

## How does measles spread?

The measles virus is airborne and spreads very easily from person to person. It passes from an infected person to others through coughing, sneezing, and even talking. Measles virus can remain active and contagious in the air or on infected surfaces for up to two hours. In Canada, exposure to measles is to be taken very seriously.



The incubation period for measles is usually 14 days, but may be as long as 21 days. Measles is contagious from four days before any signs appear until four days after the onset of the rash and usually lasts about two weeks.

## Can measles be treated?

There is no treatment for this viral illness other than supportive care. To help manage symptoms, which usually last for about two weeks, provide the child with plenty of fluids and encourage extra rest. If fever is making the child uncomfortable, fever medication such as acetaminophen (Tylenol®) or ibuprofen (Advil®) may be administered. Children with measles should be monitored closely since measles can lead to serious complications.

## Can measles be prevented?

Unless someone is immune to the virus, the only other way to stop the spread of the virus is immunization.



### **This is a vaccine preventable disease!**

The measles vaccine is provided free of charge to healthy children aged one year and older as part of routine immunization.



### **Vaccination required for school or daycare entry!**

Provincial law in Ontario requires that all children attending school or daycare must have received two doses of measles vaccine by seven years of age, unless they are exempt for medical or philosophical reasons.

## What should I know about the measles vaccine?

It is routinely given in two doses. The first dose is offered to children at one year of age, or shortly after they turn one year of age. It is a combined vaccine that also includes vaccination against mumps and rubella (MMR). The second dose of measles is administered according to the routine immunization schedule, between four to six years of age in a combined vaccine that also includes vaccination against mumps, rubella, and varicella (MMRV vaccine). Children under one year of age may be vaccinated if there is an outbreak of measles or if they are travelling to an area where measles is common.

# MEASLES

Unimmunized persons more than 12 months of age or persons who have received only one dose of measles vaccine and who have been exposed to measles can be protected from measles if they receive a dose of the measles, mumps, rubella vaccine (MMR vaccine) within 72 hours after exposure.



## Pregnancy and measles vaccine

- If you have had measles infection or have antibodies from the vaccine, you are likely protected.
- If you aren't sure you are protected, you can have a blood test through a health care provider **before becoming pregnant**. The test will tell you if you are protected against measles.
- If the blood test shows you are not protected, you should receive the measles, mumps, rubella (MMR) vaccine right away before becoming pregnant.
- Pregnancy should be delayed for at least **one month** after receiving the MMR vaccine.
- **If you are already pregnant**, and the test shows you are not protected, you cannot receive the vaccine until after the birth of the infant.
- **Important:** Any pregnant woman who has been exposed to measles should contact her health care provider immediately.

## Handling a suspected case of measles

If you suspect that a child at school or daycare has measles, contact the parent/guardian to come and pick up their child as soon as possible. The child needs to be isolated from the other children until the parent/guardian arrives. Advise the parent/guardian to have their child assessed by a health care provider.



## No school or daycare!

Children with measles should NOT go to school or daycare until four days after the rash appears. Exclusion of exposed, susceptible children and staff who are unimmunized and have been in contact with a confirmed case of measles will be at the discretion and direction of the Medical Officer of Health.



## This disease must be reported in Ontario!!

If there is a case of measles in a child or adult at school or daycare, **immediately report the case** by fax or telephone to Public Health Sudbury & Districts. See the *Immediate Reporting of Communicable Diseases* form (Resource Section).

# MENINGITIS

## BACTERIAL MENINGITIS

Bacterial meningitis is a rare but serious infection of the membranes and fluid surrounding the brain and spinal cord. It can be caused by many different bacteria and can be life-threatening if not treated right away. One of these bacteria can cause meningococcal meningitis. Although the risk of contracting it is low, meningococcal disease is a serious infection that progresses very quickly. The disease can occur as a single case or as an outbreak. Bacterial meningitis sometimes spreads within households, schools, and daycares. Most people with the disease will feel very ill. Some children may be hospitalized for further care until they are better.

**Bacterial meningitis is a very serious illness and if any child develops the following symptoms, the child should obtain immediate medical assistance at the hospital emergency department.**

### **What are the symptoms of bacterial meningitis?**

- fever
- severe headache
- neck pain or stiffness
- sensitivity to light
- confusion
- tiredness, sleepiness, and difficult to wake
- poor appetite, upset stomach, vomiting
- fussy, crying more than usual (toddlers)
- a rash that looks blotchy or like pinpoint red spots or bruises
- seizures

Infants with bacterial meningitis may not have those symptoms, and might simply be extremely irritable, lethargic, or have a fever. They may be difficult to comfort, even when they are picked up and rocked.

### ***Other symptoms of bacterial meningitis in infants can include:***

- jaundice (a yellowish tint to the skin)
- stiffness of the body and neck (neck rigidity)
- fever or lower-than-normal temperature
- poor feeding or a weak suck
- a high-pitched cry or moaning sound
- tense or bulging fontanelles (the soft spot at the top of the infant's skull)

# MENINGITIS

## **How is bacterial meningitis diagnosed?**

Diagnosing bacterial meningitis is difficult because its early symptoms are very similar to influenza. Bacterial meningitis is diagnosed based on medical history, a physical exam, and the presence of symptoms. To confirm bacterial meningitis, a doctor uses a needle to take some fluid from around the spinal cord (spinal tap). The fluid is tested to detect if the infection is caused by a bacterium.

## **Are there any complications with bacterial meningitis?**

The complications of bacterial meningitis can be severe causing permanent health problems including neurological problems such as brain damage, hearing loss, visual impairment, seizures, and learning disabilities. The heart, kidneys, and adrenal glands might be affected. Depending on the cause of the infection, bacterial meningitis can also prevent blood from circulating to the person's limbs, causing tissue to die. Although some children will develop long-lasting neurological or other health problems, most children who receive prompt diagnosis and treatment recover fully.

## **How does bacterial meningitis spread?**

Bacterial meningitis is spread from one person to another only as a result of continual close contact. The infection is spread when a person coughs or sneezes and the droplets land in the nose or throat of another person. It is also spread by direct contact with fluid from the nose or throat of an infected person through kissing or sharing food, drinks, baby bottles, soothers, sippy cups, cigarettes, lipstick, water bottles, mouthguards used for sports, mouthpieces of musical instruments, or anything else put in the mouth. People who are in direct contact with the saliva of a person infected with some types of bacterial meningitis may be at increased risk.



Symptoms appear on average four days after exposure to the bacteria, but can range between two and 10 days. Bacterial meningitis is contagious up to seven days before onset of symptoms and until 24 hours after starting the prescribed treatment.

## **Can bacterial meningitis be treated?**

If dealt with promptly, meningitis can be treated successfully. Antibiotic treatment is effective against bacterial meningitis if diagnosed early. Antibiotics are administered in a hospital setting since a person (especially young infants) will be seriously ill. Other medications may be given to help reduce inflammation of the meninges (layer surrounding the brain), depending on the cause of the disease. If bacterial meningitis is diagnosed—or even suspected—doctors will start intravenous (IV) antibiotics as soon as possible. IV fluids may be given to replace those lost to fever, sweating, vomiting, and poor appetite.

# MENINGITIS

## Can bacterial meningitis be prevented?

Antibiotics may help prevent the spread of bacterial meningitis when given to those in close contact with the infected person. Health care providers, along with Public Health, will decide who should receive antibiotics to prevent the spread of bacterial meningitis. It is important to complete all of the prescribed medication.

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1-15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1-8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



### This is a vaccine preventable disease!

Vaccination against some (not all) types of meningitis is offered as part of routine childhood immunizations. Meningococcal vaccine is required for attendance at school and daycare.

## What should I know about the bacterial meningitis vaccine?

- Immunizations are available to children, adolescents, young adults, and high risk people of all ages to protect from meningococcal Group C.
- Adolescents, travellers, and high-risk individuals can get vaccinated against meningococcal groups A, C, Y, and W-135.

# MENINGITIS

Further to meningococcal infection, other illnesses have been known to cause meningitis. Vaccination against these illnesses are also available.

- Infants, young children, and high risk individuals can get vaccinated against *Haemophilus influenzae type b* (Hib) bacteria. Before the Hib vaccine was used, Hib was the most common cause of bacterial meningitis in children two months to five years of age.
- Vaccination against *Streptococcus pneumoniae* can help protect children, high risk people, and seniors.



## Keep in mind . . .

If a student or child has had close contact with someone who has bacterial meningitis (for example, in a school or college/university residence, or in a daycare), contact a health care provider or Public Health Sudbury & Districts to inquire whether preventive medication is recommended.



## No school or daycare!

Children with bacterial meningitis should NOT go to school or daycare until they are well enough to participate in regular activities.



## This disease must be reported in Ontario!

All cases of bacterial meningitis (suspect or confirmed) **must be reported immediately** by fax or telephone or fax to Public Health Sudbury & Districts. See the *Immediate Reporting of Communicable Diseases* form (Resource Section).

# MENINGITIS

## VIRAL MENINGITIS

Viral meningitis is a serious infection of the membranes and fluid surrounding the brain and spinal cord. It can be caused by a number of common viruses.

The illness occurs most often during the summer and early fall, when the two most common viruses that cause meningitis (coxsackievirus and echovirus) are circulating in the community. These viruses frequently infect many children and adults however, viral meningitis is not common and few people will actually develop the illness.



### Keep in mind . . .

When someone gets the disease it does not usually spread to others. Outbreaks of the disease are rare.

**Viral meningitis is a serious illness and if any child develops the following symptoms, the child should obtain immediate medical assistance at the hospital emergency department.**

### What are the symptoms of viral meningitis?

- fever
- headache
- neck pain or stiffness
- upset stomach, vomiting, poor appetite
- tiredness or listlessness
- rash

***The virus may also infect other parts of the body causing symptoms such as:***

- runny nose
- difficulty breathing
- sore throat or earache
- cough
- diarrhea

***Common symptoms in infants***

- fever
- irritability
- poor eating
- difficult to wake up



# MENINGITIS

## How is viral meningitis diagnosed?

Viral meningitis is diagnosed based on medical history, a physical exam, and the presence of symptoms. To confirm viral meningitis, a doctor uses a needle to take some fluid from around the spinal cord (spinal tap). The fluid is tested to detect if the infection is caused by a virus.

## Are there any complications with viral meningitis?

Children and adults may be very ill and need to be hospitalized but they usually recover in about one to two weeks. There are usually no long-term health problems after viral meningitis, however infants younger than one month of age and people whose immune systems are weak are at higher risk for severe infection and long-term complications.

## How does viral meningitis spread?

Many different viruses can cause meningitis. Some are spread by direct or indirect contact with respiratory secretions (saliva, sputum, or nasal mucus) of an infected person. This usually happens by shaking hands with an infected person or touching something they have handled and then rubbing your own nose or mouth. The virus can also be found in the stool of persons who are infected. The virus is spread through this route mainly among small children who are not yet toilet trained.



Symptoms may appear three to four days after exposure to the virus. Viral meningitis can be spread to others three to five days before and four days after the onset of the rash. The symptoms usually last from 7 to 10 days.

## Can viral meningitis be treated?

Viral meningitis can affect infants, children, and adults. It is usually less severe than bacterial meningitis and normally clears up without specific treatment within one to two weeks. A hospital stay may be necessary in more severe cases or for people with weak immune systems. Antibiotic treatment is not effective against viral meningitis.

## Can viral meningitis be prevented?

There is no vaccine to prevent viral meningitis. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!

# MENINGITIS

- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1-15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1-8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## Keep in mind . . .

Most people who are in contact with someone with viral meningitis will not contract meningitis themselves. It is not necessary to keep a person with viral meningitis away from others.



## No school or daycare!

Children with viral meningitis should NOT go to school or daycare until they are well enough to participate in regular activities.



## This disease must be reported in Ontario!

All cases of viral meningitis (suspect or confirmed) **must be reported immediately** by fax or telephone to Public Health Sudbury & Districts. See the *Immediate Reporting of Communicable Diseases* form (*Resource Section*).

# METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

*Staphylococcus aureus* (staph) is a common type of bacteria that lives on the skin and mucous membranes of healthy people. When *Staphylococcus aureus* becomes resistant to certain antibiotics, including methicillin (a type of penicillin), it is called Methicillin-resistant *Staphylococcus aureus* or MRSA. Methicillin and some other antibiotics will not treat MRSA infections. However, it is not resistant to all antibiotics.

Most people who carry MRSA on their skin or in their nose do not get an infection, or get sick from it (carriers). However, staph bacteria (including MRSA) sometimes do cause infections, most often in the skin (pimples, boils, and infections in cuts).

MRSA is increasingly common in most communities.

## **What are the symptoms of a staph or MRSA infection?**

- red, painful bumps under the skin (boils or abscesses)
- blisters filled with fluid or red skin with a honey-coloured crust
- a cut that is swollen, hot, and filled with pus
- an area of skin that is red, warm, firm, and painful, and getting bigger
- fever and chills

## **How is MRSA diagnosed?**

MRSA is diagnosed based on medical history, a physical exam, and the presence of symptoms of the person to identify any skin changes that may be due to MRSA. A sample of pus with a cotton swab is obtained from the infection site (wound or boil) and sent to a lab for analysis. If *Staphylococcus aureus* bacteria are confirmed, the bacteria are then exposed in a lab to different antibiotics, including methicillin. If *Staphylococcus aureus* bacteria grow well when methicillin is in the culture, it is resistant to methicillin. Therefore the person is diagnosed with an MRSA infection.

## **Are there complications with MRSA?**

At times, these resistant MRSA bacteria can cause serious disease that may be difficult or almost impossible to treat. Complications from MRSA can occur in almost all organ systems and cause serious infections that can result in permanent organ damage, surgical wound infections, septicemia (blood infection), pneumonia (lung infection), endocarditis (infection of the heart valves), kidney infection, necrotizing fasciitis (flesh eating disease), or death.

Early diagnosis and treatment usually result in better outcomes and reduction or elimination of further complications.

# METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

## How does MRSA spread?

MRSA is spread by direct skin-to-skin contact with someone who has MRSA and can live on objects in the environment. The hands are the most common way that this infection is spread and can also be spread by contact with contaminated objects.

Sometimes children who have been in hospital may get MRSA. MRSA is also becoming more common in otherwise healthy children and adults who have not been in hospital.



After 1 to 10 days, on average, signs and symptoms of a staphylococcal infection or MRSA may appear. MRSA is contagious during an active infection, but carriers of MRSA can also spread the bacteria to others for days, weeks, even years.

## Can MRSA be treated?

When tests are done to determine that the Staph bacteria isolated are methicillin resistant, these tests also provide information about which antibiotics can successfully kill the bacteria (its susceptibility profile). Fortunately, many MRSA infections still can be treated by certain specific antibiotics. Most moderate to severe infections need to be treated by intravenous antibiotics, usually given in the hospital setting.

Some infections may require the wound, abscess or boil be drained or it may require a surgical procedure to remove the infection. If you are given an antibiotic, take all of the doses, even if the infection is getting better. Do not stop unless your health care provider tells you to stop.



### **Pay careful attention!**

Avoid sharing antibiotics with other people, or saving unfinished antibiotics to use at another time. This causes bacteria to build resistance to antibiotic treatment.

## Can MRSA be prevented?

There is no vaccine to prevent MRSA, therefore it is important to take precautions to prevent the illness.

- Regular handwashing is the best way to prevent the spread of staph or MRSA. Wash hands with soap and water (*page 1-5*) or use an alcohol-based hand sanitizer (*page 1-3*).
- Bathe or shower regularly.
- Practice *Cough and Sneeze Etiquette* (*page 1-8*) in your school or daycare. Teach children the proper procedure.

# METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

- Children and adults should properly wash their hands after using the bathroom, after blowing their nose, and before eating and drinking.
- Keep cuts, scrapes, and abrasions clean and covered with sterile dry bandages until healed. Wash your hands after changing a bandage.
- Take good care of your skin.
- Avoid sharing personal items that touch the skin such as towels, clothing, razors, hairbrushes, or sports equipment.
- Environmental surface cleaning and disinfecting are also important measures to prevent MRSA transmission.



## **Keep in mind . . .**

If your hands (or a child's hands) are visibly dirty, alcohol based hand sanitizers will not work. Wash with soap and water.



## **OK to go!**

Children with MRSA can play with friends or go to school or daycare, but must remember to wash their hands. Parents or guardians do not have to inform school or daycare personnel about the MRSA, as special precautions are not needed in these settings. The child can live normally, continue usual activities, and should not be excluded from any activity due to MRSA. *Prevention and control of MRSA should be discussed with Public Health Sudbury & Districts.*

# MOLLUSCUM CONTAGIOSUM

Molluscum contagiosum is a skin infection caused by the Poxvirus that affects the top layers of the skin. It is more common in warm and humid environments such as swimming pools and showers. The risk of contracting the infection increases during the summer months.

This common infection is mostly found in children under 10 years of age, sexually active teenagers and adults, and those who are immunocompromised.

## **What are the symptoms of molluscum contagiosum?**

At first, tiny painless bumps or growths appear on the skin. They grow to be firm, pinkish-white, raised, and doughnut-shaped bumps with a dip in the centre. They can be itchy at times.

In children, the bumps often appear on the face, body, legs, and arms, and can spread to the genital area by scratching. In adults, the bumps can be found anywhere on the body. The bumps can be more severe in people with an immune system problem.

## **How is molluscum contagiosum diagnosed?**

A health care provider will diagnose the infection by examining the bumps on the skin. A sample of the liquid from the bumps can be taken and sent to the lab for analysis.

## **Are there complications with molluscum contagiosum?**

The most common complication is a bacterial infection at the site of the molluscum.



### **Pregnancy and molluscum contagiosum**

The molluscum virus does not seem to affect babies born to infected mothers.

## **How does molluscum contagiosum spread?**

Molluscum contagiosum is spread from person to person by touching the affected skin. Handling or sharing objects that have the virus on them, such as towels, can also spread the infection. Scratching can spread molluscum from one part of the body to another or to other people.

It's not clear if the molluscum contagiosum virus can spread in the chlorinated water found in swimming pools. Experts suspect that it's more likely that swimmers transmit the virus through shared use of towels, equipment (such as kickboards), or through direct contact with the infected skin.

# MOLLUSCUM CONTAGIOSUM



The symptoms may appear from two to seven weeks after exposure to the virus but may take as long as six months. As long as the bumps are present the infection is contagious.

## Can molluscum contagiosum be treated?

The bumps usually go away without treatment in two to six months. A health care provider may use a medicated solution to remove the bumps. Sometimes the bumps can be removed by surgery or by cryotherapy (freezing). Even after removal, the infection can come back and may need to be treated again.

## Can molluscum contagiosum be prevented?

There is no vaccine to prevent molluscum contagiosum, therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Avoid sharing blankets, bed sheets, towels, facecloths, clothing, or other items among children and staff. All articles which were in contact with infected skin should be washed in hot water and detergent then dried at a high temperature.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- To prevent the child from spreading the bumps to other parts of the body, or if there's a possibility that another person may come in contact with infected skin, keep the infected areas of skin covered with gauze and tape or a band-aid.
- Keep affected areas clean and covered to prevent them from becoming infected.
- The child's fingernails should be kept short and clean to prevent the child from scratching the bumps.
- If at a swimming pool, cover the bumps with watertight bandages before swimming and have the child avoid sharing towels, water toys, or kickboards.



### OK to go!

Children with molluscum contagiosum may go to school or daycare if they feel well enough to participate in regular activities.

# MONONUCLEOSIS, OR INFECTIOUS MONONUCLEOSIS

Infectious mononucleosis is an illness caused by the Epstein-Barr virus. Mononucleosis is commonly referred to as “mono.”

Most people infected may not have any symptoms. In young children, the infection can be very mild and more difficult to recognize.

Mono is more common among high school, college, and university students.

## **What are the symptoms of mononucleosis?**

- swollen glands on the sides and back of the neck
- fever that may come and go
- sore throat
- white patches on the back of the throat
- very tired—sleeping more than usual
- not interested in eating or playing
- body aches
- rash on chest, back, hands, and feet
- sore stomach
- yellowing of the skin and eyes

## **How is mononucleosis diagnosed?**

A physical exam, the presence of symptoms, and a blood test will assist the health care provider to diagnose mononucleosis.

## **Are there complications with mononucleosis?**

The disease is rarely fatal although it is more severe in older adults. In some cases, the spleen and liver can be affected and may become enlarged. There is a small but real chance that the enlarged spleen may rupture.

The organs slowly return to normal after the infection.



### **Keep in mind . . .**

Severe pain in the upper left part of the abdomen may mean that the spleen has ruptured. A ruptured spleen is serious and requires immediate emergency surgery.



# MONONUCLEOSIS, OR INFECTIOUS MONONUCLEOSIS



## **Pregnancy and mononucleosis**

The risk of transmitting the Epstein-Barr virus that causes mononucleosis to an unborn baby is quite low. This is largely due to the fact that most women have already had an exposure to the virus and carry protective antibodies in their blood.

In most cases, the symptoms are mild and there is no danger to the mother or the infant. Fatigue may be more pronounced during pregnancy. As with any illness in pregnancy, the woman should consult with her health care provider to confirm the diagnosis. While there is usually no threat to the infant, the health care provider will want to monitor the pregnant woman's condition. The fever will need to be controlled, since an extremely high fever can be dangerous to the infant.

## **How does mononucleosis spread?**

Mononucleosis is spread from person to person through contact with nose and throat secretions such as saliva and mucus from an infected person. When someone with mono coughs, sneezes, or spits, the virus can spread to other people. Because the virus can be spread through kissing, it has earned the nickname the "kissing disease." The illness is also transmitted by sharing beverages, eating utensils, or personal hygiene items. The virus can also be spread to infants and very young children through saliva on toys, or on the hands of school or daycare personnel.



Symptoms can appear between four and six weeks after exposure. People can be contagious from the time they first become infected with the virus. The virus can be present in nasal excretions of an infected person for several months after the infection, up to one year.

## **Can mononucleosis be treated?**

There is no specific treatment for infectious mononucleosis because it is caused by a virus. The following tips can assist you in managing mononucleosis symptoms:

- Get plenty of rest. Bed rest may be needed, which could keep you away from school or work for a period of time.
- Drink plenty of fluids and eat a well-balanced diet.
- Gargle with salt water or use throat lozenges to soothe a sore throat.
- Take acetaminophen (Tylenol®) or ibuprofen (Advil®) to reduce fever and relieve a sore throat and headaches. Never give Aspirin® to a child, because of the risk of Reye's syndrome.
- To reduce the risk of a ruptured spleen, avoid contact sports and heavy lifting for one to three months or until your health care provider says it is safe.

# MONONUCLEOSIS, OR INFECTIOUS MONONUCLEOSIS

Recovery usually occurs in a few weeks but a small number of individuals can take months to regain their former level of energy. As with all infectious diseases, consult your health care provider for diagnosis and treatment of symptoms. Antibiotics will not clear up infectious mononucleosis because it is caused by a virus and not by bacteria. However, an antibiotic may be prescribed if you also have a bacterial infection (for example, strep throat).

## Can mononucleosis be prevented?

There is no vaccine to prevent mononucleosis. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



### Keep in mind . . .

Most adults (90%) have been exposed to the virus by the time they reach their late teens and most will not develop the infection again. However, the virus can reoccur in people with compromised immune systems.



### OK to go!

Children with mononucleosis may go to school or daycare if they feel well enough to participate in regular activities.

# MUMPS

Mumps is a disease caused by the mumps virus. When children have mumps, it is generally very mild. The infection is usually more severe in adults. Some people may have no symptoms at all. Mumps is much less common since routine immunization of children against mumps began.

## What are the symptoms of mumps?

- swollen glands in front of and below the ear or below the jaw line, on one or both sides of the face
- fever
- headache
- earache
- muscle aches and pains

## How is mumps diagnosed?

Mumps is diagnosed based on medical history, a physical exam, and the presence of symptoms. A health care provider will collect test samples (a throat swab, blood test, or urine sample—alone or in combination) to diagnose the illness. Blood tests are also done to confirm if a person is immune to the disease.



### Keep in mind . . .

If parents are planning to take their child to a health care provider, the office should know in advance that the child might have mumps and can take appropriate precautions to avoid exposing other children to mumps.

## Are there complications with mumps?

Mumps can be a serious disease that can sometimes cause damage to the brain, deafness, and other complications. Sometimes a boy's testicles, a child's joints, kidneys, and the lining of the brain are mildly affected. In some adult cases, mumps can affect a woman's eggs or a man's sperm and it can be very painful. Every so often, a man who contracts mumps may become sterile (not be able to have children).



### Pregnancy and mumps

Mumps infection during the first three months of pregnancy can increase the risk of a miscarriage.

## How does mumps spread?

Mumps is spread through close contact with droplets that are expelled into the air by someone infected through coughing or sneezing, or by contact with the saliva of someone with mumps. A person infected with mumps who does not have any symptoms can still spread the virus to others.

# MUMPS



The first symptoms of the infection take two to three weeks to appear after being in contact with someone who is infected. Mumps is contagious from seven days before the glands swell until nine days after they begin to swell. Mumps is most contagious from one to two days before the glands swell until four to five days after.

## Can mumps be treated?

There is no specific treatment for mumps since the infection is caused by a virus. Antibiotics have no effect. Therefore, treatment focuses on providing relief or supportive care from symptoms as the body fights the virus.

- Give medications such as acetaminophen (Tylenol®) or ibuprofen (Advil®) to control the fever or pain. Avoid the use of acetylsalicylic acid (ASA) like Aspirin®. It can cause a rare but serious illness called Reye's syndrome in children.
- Apply warm or cold compresses to help with swelling.
- Drink plenty of fluids (avoid fruit juices that could irritate the salivary glands).
- Rest until the fever improves.
- Eat a soft, bland diet.

## Can mumps be prevented?

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.

# MUMPS



## **This is a vaccine preventable disease!**

Mumps is prevented through vaccination. The mumps vaccine is provided free of charge to healthy children aged one year and older as part of routine immunization.



## **Vaccination required for school or daycare entry!**

Provincial law in Ontario requires that all children attending school or daycare are vaccinated against mumps unless they are exempt for medical or philosophical reasons.

## **What should I know about the mumps vaccine?**

It is routinely given in two doses. The first dose is offered to children at one year of age, or shortly after they turn one year of age. It is a combined vaccine that also includes vaccination against measles and rubella (MMR).

The second dose of mumps is administered according to the routine immunization between four to six years of age in a combined vaccine that also includes vaccination against measles, rubella, and varicella (MMRV vaccine).

MMR vaccine is also provided free of charge to adolescents and adults born in or after 1970 who have either not had mumps disease or previous vaccination.



## **Pregnancy and mumps vaccine**

- If you have had the mumps infection or have antibodies from the vaccine, you are likely protected.
- If you aren't sure you are protected, you can have a blood test through a health care provider **before becoming pregnant**. The test will tell you if you are protected against mumps.
- If the blood test shows you are not protected, you should receive the measles, mumps, rubella (MMR) vaccine right away before becoming pregnant.
- Pregnancy should be delayed for at least **one month** after receiving the MMR vaccine.
- **If you are already pregnant**, and the test shows you are not protected, you cannot receive the vaccine until after the birth of the infant.
- **Important:** Any pregnant woman who has been exposed to mumps should contact her health care provider immediately.

# MUMPS

## Handling a suspected case of mumps

If you suspect that a child at school or daycare has mumps, contact the parent/guardian to come and pick up their child as soon as possible.

The child needs to be isolated from the other children until the parent/guardian arrives. Advise the parent to have their child assessed by a health care provider.

After about one to two weeks, symptoms should begin to fade. If the child's symptoms worsen or complications occur, the parent/guardian should seek medical assistance as soon as possible.



### **No school or daycare!**

Children with mumps should NOT go to school or daycare until at least five days after the swollen glands first appeared. Exclusion of exposed, susceptible children and staff who are unimmunized will be at the discretion and direction of the Medical Officer of Health.



### **This disease must be reported in Ontario!**

If there is a case of mumps in a child or adult at school or daycare, **immediately report the case** by fax or telephone to Public Health Sudbury & Districts. See the *Immediate Reporting of Communicable Diseases* form (Resource Section).

# NOROVIRUS

Norovirus is a virus that causes gastroenteritis in people of all ages. It is an illness that causes diarrhea and/or vomiting (*Diarrhea, page 3–18 and Vomiting, page 3–105*). Gastroenteritis, also known as the “stomach flu” is not related to the influenza virus, which causes a respiratory illness. Outbreaks are common in schools and daycares.

## **What are the symptoms of norovirus?**

- upset stomach and nausea
- vomiting and/or diarrhea
- abdominal cramps
- chills
- mild fever
- muscle aches and fatigue

## **How is norovirus diagnosed?**

Most often, based on medical history and a physical exam, the health care provider will make a diagnosis of viral gastroenteritis, but will not be able to say specifically whether a norovirus infection is the cause of the diarrhea and/or vomiting. A health care provider may diagnose norovirus through a laboratory test on a stool sample from an infected person.

## **Are there complications with norovirus?**

Complications and severe illness are rare. Sometimes the diarrhea and/or vomiting that accompanies a norovirus infection can lead to dehydration.

### ***Watch for signs of dehydration:***

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant’s head

# NOROVIRUS

## How does norovirus spread?

Norovirus can spread if people with the virus do not wash their hands after going to the toilet, or if someone with the illness handles food and drinks and has not washed their hands. Norovirus can be spread to the environment. This includes sinks, taps, counters, and toys. People can become ill when they touch these surfaces and put their hands in their mouths.

The virus is found in the diarrhea and/or vomit of people who are ill. When a child vomits or has diarrhea, those nearby may be exposed to the virus through tiny droplets in the air.



The symptoms may appear between one to two days after exposure to the virus. People infected with norovirus are contagious from the moment they begin feeling ill and as long as two weeks after recovery. Even when diarrhea and/or vomiting have stopped, the virus can remain in the feces.

## Can norovirus be treated?

There is no medication to treat norovirus. People get better on their own within a few days. It is important to drink plenty of fluids to prevent dehydration.

## Can norovirus be prevented?

There is no vaccine to prevent norovirus, therefore it is important to take precautions to prevent the illness.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.



# NOROVIRUS

## Handling a suspected case of norovirus

If a child is sick with diarrhea and/or vomiting while at school or daycare, place the child in a separate room away from other children and notify the parent/guardian to pick up the child immediately.

Clean up any diarrhea and/or vomit (*page 1–16*).

You may also refer to *Diarrhea (page 3–18)*, and *Vomiting (page 3–105)* for more information on these conditions.

## Managing a suspected outbreak of norovirus

If two or more children and staff experience two or more episodes of diarrhea and/or vomiting in the same time period (for example, within 48 hours):

- **Daycares** must notify Public Health Sudbury & Districts immediately.
- **Daycares** must initiate *Immediate Measures to Control an Outbreak: For Daycares (page 4–4)*.
- **Schools** may follow the recommendations of *Immediate Measures to Control an Outbreak: Recommendations for Schools (page 4–6)*.



### No school or daycare!

Children and staff with diarrhea and/or vomiting must NOT attend daycare until 48 hours after their symptoms have resolved. It is recommended that school-aged children NOT attend school until they are symptom-free for 48 hours.

# PERTUSSIS (WHOOING COUGH)

Pertussis, more commonly known as whooping cough is a highly contagious infection of the respiratory tract caused by bacteria called *Bordetella pertussis*. Whooping cough can affect people of all ages but for infants it is especially severe and dangerous. Infants most at risk are those who are unimmunized or who are partially immunized, especially those who have not yet received two or more doses of vaccine.

Over the past decade in Canada, the annual number of reported whooping cough cases has ranged from 2,400 to 10,000 with many cases occurring in older children and young adults.

Protection of adolescents and adults is a worthy goal for the benefit of these individuals themselves, notwithstanding the added indirect protection that it may provide to infants. (*Public Health Agency of Canada, March 2004*).

## **What are the symptoms of pertussis?**

At first:

- runny nose
- sneezing
- mild fever or may not have a fever
- cough

The cough gradually becomes more frequent causing severe coughing spells. At the end of a coughing spell, the characteristic “whoop” sound may occur as the child takes a deep breath.

During the coughing spell, the child may become blue in the face because the cough can make them stop breathing for a short period of time. The child will often vomit afterwards. These coughing spells occur more frequently at night.

The typical illness lasts 6 to 12 weeks but children can cough for months. Coughing spells can be triggered by anything that irritates the airways, such as a cold.

## **How is pertussis diagnosed?**

Diagnosing pertussis in its early stages can be difficult because the signs and symptoms resemble those of other common respiratory illnesses, such as a cold, the flu or bronchitis.

Pertussis is diagnosed based on medical history, a physical exam, and the presence of symptoms. The health care provider confirms the diagnosis through the collection of a nasopharyngeal swab (a sample taken from the back of the nose and throat).

# PERTUSSIS (WHOOPIING COUGH)

## Are there complications with pertussis?

The disease is most severe in infants less than one year of age; many are so sick that they have to be hospitalized. The coughing can make it difficult to eat, drink, or even breathe. Pertussis can lead to dehydration (*Appendix B: Signs of Dehydration*), ear infections, pneumonia, seizures, brain damage, and death, especially in infants. Older children, teenagers, and adults can cough so hard that they break a rib, lose control of their bladder, develop a hernia, or collapse a lung.

## How does pertussis spread?

Pertussis is spread in droplets that are coughed, sneezed, or breathed into the air, or by direct contact with the fluids from the nose and throat of someone with whooping cough.



The incubation period (the time between infection and the onset of symptoms) for pertussis is usually 7 to 10 days, but can be as long as 21 days. People with pertussis are contagious from the time they contract the infection until three weeks after the symptoms start. Infants who have not been immunized may be infectious for up to six weeks after the cough begins.

## Can pertussis be treated?

Pertussis can be treated with antibiotics. Antibiotics help a person recover if taken early in the illness. If taken later, antibiotics can help prevent the spread of bacteria that cause whooping cough.

People who are in close contact with someone who has whooping cough and who are at high risk can also take antibiotics.



### Keep in mind . . .

It is important to take all the medication, even if the symptoms begin to improve.

## Can pertussis be prevented?

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.

# PERTUSSIS (WHOOPIING COUGH)

- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## **Keep in mind . . .**

Health care providers, along with Public Health, will decide who should receive antibiotics to prevent the spread of whooping cough.



## **This is a vaccine preventable disease!**

Children who are immunized against whooping cough usually do not contract the disease. Pertussis vaccine is offered as part of the routine immunization schedule for Ontario. Children are required to have this immunizations or a signed exemption to attend school in Ontario.

## **What should I know about the pertussis vaccine?**

- Children and teenagers are usually immunized at 2, 4, 6, and 18 months; 4 to 6 years; and 14 to 18 years of age.
- Adults between 19 to 64 years of age are eligible to receive one lifetime dose of pertussis vaccine.

### **Important:**

- The pertussis vaccine is especially important for parents of newborn infants. Infants under six months of age are particularly at risk, as they are not protected against pertussis until their six-month vaccination schedule is complete.
- A mother does not pass any protection against pertussis onto her infant while she is pregnant or breastfeeding. Parents should get the vaccination as soon as possible after the birth of their infant.
- Anyone regularly in contact with infants and young children should also be vaccinated.

# PERTUSSIS (WHOOPIING COUGH)

## Handling a suspected case of pertussis

If you suspect that a child at school or daycare has pertussis, contact the parent/guardian to come and pick up their child as soon as possible.

The child needs to be isolated from the other children until the parent/guardian arrives. Advise the parent/guardian to have the child assessed by a health care provider.

## When to seek medical assistance

If the child has been diagnosed with pertussis, seek immediate medical assistance at the hospital emergency if the child develops the following symptoms:

- difficulty breathing or seems to have brief periods of not breathing (apnea)
- lethargic or difficult to wake
- prolonged coughing spells that make the child's skin or lips turn blue or purple
- shows signs of dehydration



### **No school or daycare!**

Children with whooping cough should NOT go to school or daycare until the antibiotic treatment prescribed by a health care provider has been taken for at least five days. If no treatment is given, the child should NOT go to school or daycare for three weeks after the cough has appeared.



### **This disease must be reported in Ontario!**

If there is a case of pertussis in a child or adult at school or daycare, report the case to Public Health Sudbury & Districts.

# PINKEYE (CONJUNCTIVITIS)

Conjunctivitis is an infection or inflammation of the conjunctiva, the membrane that covers the eyeball and the inside of the eyelid. It is also known as pinkeye. It is usually caused by a virus, but it can be caused by bacteria.

Pinkeye can also be caused by allergies, chemical irritants in the environment, injury, and too much rubbing.

Pinkeye is more common in children but it can affect people of all ages.

## **What are the symptoms of pinkeye?**

- scratchy feeling or pain in the eyes
- whites of the eyes are pink or red
- tearing and pus that makes eyelids stick together when waking up
- in some cases, sensitivity to bright light and swelling of the eyelids

Pinkeye caused by bacteria may cause more discharge than pinkeye caused by a virus. In general, the discharge associated with viral conjunctivitis is watery, whereas it will be thicker and more pus-like when the infection is caused by bacteria.

## **How is pinkeye diagnosed?**

A health care provider is able to diagnose pinkeye by examining the eyes.

At times, the health care provider may take a sample of the eye secretions from the conjunctiva for laboratory analysis to confirm the cause of the infection if the child has a very severe case of conjunctivitis, if the corneas are affected or the child has had repeated infections that aren't responding to treatment.

## **Are there any complications with pinkeye?**

In both children and adults, pinkeye can cause inflammation in the cornea that can affect vision. Prompt evaluation and treatment by a health care provider can reduce the risk of complications.

If the signs and symptoms persist or worsen, despite treatment, the health care provider may refer the child to an eye specialist (ophthalmologist).

## **How does pinkeye spread?**

Pinkeye caused by bacteria or by a virus is very contagious and can spread easily. It spreads by direct contact with the discharge from the infected eye, or indirectly from an object that is contaminated.

# PINKEYE (CONJUNCTIVITIS)



The incubation period for pinkeye depends on what's causing the infection, but usually ranges from a couple of days to a couple of weeks.

Pinkeye caused by bacteria is contagious as soon as symptoms appear and remains so as long as there is a discharge from the eye—or until 24 hours after antibiotics are started.

Pinkeye caused by a virus is generally contagious before symptoms appear and can remain so as long as the symptoms last.

Pinkeye caused by allergies and irritants are not contagious.

## Can pinkeye be treated?

Pinkeye caused by bacteria is usually treated and cured with prescription antibiotic drops or ointment.

Drops are the form of treatment most commonly prescribed and are used up to four times a day. They don't hurt, although they may cause a brief stinging sensation. Antibiotics can also stop the infection from spreading to others.



### Keep in mind . . .

Even though the eyes should feel and look better after a couple of days, it's important to use the drops for as long as the health care provider has prescribed. The infection may come back if stopped too soon.

If a virus is causing pinkeye, antibiotic drops will not help. The eye infection will get better as the body fights off the virus and will go away on its own.

## Dealing with discomfort

- To help with discomfort caused by the infection, apply cool or warm compresses or washcloths over the infected eye (or eyes).
- Acetaminophen (Tylenol®) or ibuprofen (Advil®) can also help with the pain associated with pinkeye.
- To help remove any crusting caused by the discharge, clean the infected eye (or eyes) carefully with warm water and a washcloth, a fresh gauze, or cotton balls. Wipe in a movement from the inside to the outside of the eye, and in a single direction. To help prevent spreading the infection, use a clean part of the washcloth with each stroke or a new gauze or cotton ball with each stroke. Launder used washcloths promptly or dispose of gauze or cotton balls immediately.

# PINKEYE (CONJUNCTIVITIS)

## Can pinkeye be prevented?

There is no vaccine to prevent pinkeye, therefore it is important to take precautions to prevent the illness from spreading.

- When possible, encourage children to not rub their eyes. This will cause irritation and can spread the infection from one eye to the other.
- Wash your own and the child's hands carefully (*page 1–5*) after touching or wiping the child's eyes, nose, or mouth.
- Do not let the child share face cloths, towels or pillowcases with anyone else until the infection has cleared. This could spread the infection.
- Clean objects that are touched by the child's hands or face, such as pillowcases, cuddle blankets, and toys.
- Watch other children for signs of infection. If you suspect an outbreak, notify Public Health.
- Children with viral pinkeye can return to school or daycare once assessed by a health care provider.



### **No school or daycare!**

If a child's eyes have discharge or pus, the child should not go back to school or daycare until antibiotics have been taken. Children with pinkeye caused by bacteria should NOT go to school or daycare until antibiotic treatment prescribed by a health care provider has been taken for at least 24 hours.



# PINWORMS

Pinworms are tiny, white, thread-like worms that live in the large intestine. They come out of the anus at night and lay their eggs on nearby skin. The worms can be seen with a flashlight. They look like crawling threads around the anal area after the child has been asleep for about an hour.

Pinworms are common among preschool and school-aged children. Children with pinworms usually have no symptoms, but may be very itchy around the anal area and the vagina.

Pinworms are a nuisance, not a disease. They can make a child uncomfortable.

## **What are the symptoms of pinworms?**

Usually, people with pinworms have no symptoms. However, the area around the anus and vagina can get very itchy. In some infections, symptoms may also include loss of appetite, restlessness, irritability, and difficulty sleeping.

## **How are pinworms diagnosed?**

A health care provider can do a simple test to check for pinworms using transparent adhesive tape (called the “scotch tape test”) or a pinworm paddle applied to the anal area. The pinworm eggs become glued to the sticky tape or paddle and are identified by examination under a microscope.

## **How do pinworms spread?**

Pinworms are spread easily by the fecal-oral route when:

- A child with pinworms scratches the itchy area and gets pinworm eggs on the fingers or under the fingernails. Then the infection can be spread by direct contact by touching someone else’s mouth.
- Eggs can spread from an infected child onto objects such as toys, toilet seats, bathtubs, clothes, or bedding. By sharing these objects, others can pick up the eggs on their hands and then put them into their mouth.



About one to two months after a person contracts the pinworm eggs, adult female pinworms begin migrating from the large intestine to the area around the rectum. There, they will lay new pinworm eggs, which trigger itching around the anal area.

# PINWORMS



## Keep in mind . . .

Eggs can live for up to two weeks outside the body on clothing, bedding, or other objects.

## Can pinworms be treated?

Pinworms are treated with an oral medication that can take up to two weeks to work. The itching can continue for at least a week after taking the medication. A second treatment may be required.

## Can the spread of pinworms be prevented?

- A child can get pinworms again by coming into contact with pinworm eggs.
- Handwashing is the most effective method to prevent the spread of pinworms.
- Make sure that children and staff wash their hands carefully (*page 1–5*) after going to the toilet, after changing diapers, and before preparing or eating food.
- Discourage children from nail biting and scratching the anal area. A child's nails should be kept trimmed and clean.
- To stop the spread of pinworms and prevent reinfestation, all staff, children and family members of infected children may need to be treated.
- Wash all bed linen. Avoid shaking them because this can scatter the eggs.
- The eggs are sensitive to sunlight, so open blinds or curtains in the bedroom during the day when the child isn't sleeping.
- Infected children should change their underclothes frequently to decrease the risk of reinfestation.



## Keep in mind . . .

Parents or guardians should inform the school or daycare if their child has pinworms.



## OK to go!

Children with pinworms may go to school or daycare even if they have not been treated.

# PNEUMONIA

Pneumonia is an infection of the air passages and lungs that can be caused by viruses, bacteria, or other types of germs. Most cases of pneumonia are caused by viruses, including adenoviruses, rhinovirus, influenza virus, and RSV (*Respiratory Syncytial Virus*, page 3–73).

Often, pneumonia begins after an upper respiratory tract infection (an infection of the nose and throat), with symptoms of pneumonia beginning after two or three days of a cold or sore throat.

The elderly and people who suffer from a chronic respiratory illness or other health conditions that prevent their bodies from fighting off infections are generally at greater risk of developing pneumonia.

## **What are the symptoms of pneumonia?**

- fever and chills
- chest pain
- unusually rapid breathing (in some cases, this is the only symptom)
- breathing with grunting or wheezing sounds
- labored breathing that makes the rib muscles retract (when muscles under the ribcage or between the ribs draw inward with each breath) and causes nasal flaring
- coughing that brings up sputum
- nasal congestion and runny nose
- muscle aches
- abdominal pain
- vomiting
- loss of appetite in older children
- poor feeding in infants which may lead to dehydration (*Appendix B: Signs of Dehydration*)
- weakness, fatigue, and lack of energy
- in extreme cases, bluish or gray lips and fingernails

Children with pneumonia caused by bacteria usually become ill fairly quickly and will have a sudden onset of a high fever and unusually rapid breathing. Children with pneumonia caused by viruses probably will have symptoms that appear more gradually and are less severe, though wheezing can be more common in viral pneumonia.

# PNEUMONIA

## How is pneumonia diagnosed?

The health care provider usually diagnoses pneumonia based on medical history, a physical exam, and the presence of symptoms. To confirm the diagnosis, the health care provider may order a chest X-ray, blood tests, or (sometimes) by taking bacterial cultures of mucus produced by coughing.

## Are there complications with pneumonia?

Pneumonia rarely causes serious complications for healthy people less than 65 years of age. Some complications from pneumonia can occur such as acute respiratory distress syndrome, lung abscess, pleural effusion, or collapsed lung. If pneumonia spreads to the child's blood, septicemia (blood infection) can also occur.

**Any of these complications can be life-threatening and death is possible, so parents with children showing symptoms of pneumonia should seek medical assistance quickly.**

## How does pneumonia spread?

Bacteria, viruses, and other germs that cause pneumonia are found in the nose and throat. Most types of pneumonia are spread the same way as influenza or the common cold by coughing or sneezing. Pneumonia can be spread by direct contact with the mucus or saliva of someone with pneumonia, or indirectly through toys or objects that are soiled with mucus or saliva from an infected person.



The length of time between the beginning of pneumonia and the onset of symptoms varies depending on the type of virus or bacteria causing the infection. For instance, the Respiratory Syncytial Virus (RSV) is four to six days, and the influenza virus is one to three days.

## Can pneumonia be treated?

In most cases, pneumonia caused by bacteria can be treated and cured with oral antibiotics given at home within one to two weeks. The type of antibiotic used depends on the type of pneumonia.

If a health care provider has prescribed antibiotics for pneumonia, give the medication on schedule for as long as directed. This will help the child recover faster. If the parent feels that the antibiotic is not helping the child, the health care provider should be informed. Antibiotics will not treat viral infections. Viral pneumonia may last longer.

# PNEUMONIA

The child's temperature should be taken at least once each morning and each evening. The parent should contact a health care provider if the temperature goes above 38.9°C (102°F) in an older infant or a child or above 38°C (100.4°F) in an infant under six months of age.



## **Pay careful attention!**

Check the child's lips and fingernails to make sure that they are rosy and pink, not bluish or gray, which is a sign that the lungs are not getting enough oxygen.

At times, children may be hospitalized for other treatments if they have pneumonia that causes high fevers and respiratory distress, or if:

- supplemental oxygen is needed
- they have a lung infection that may have spread to the bloodstream
- they have chronic illnesses that affect the immune system
- they are vomiting so much that they cannot take medication by mouth
- they have recurrent episodes of pneumonia
- they have developed any other serious complication

## **Can pneumonia be prevented?**

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.

# PNEUMONIA

- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



## **This is a vaccine preventable disease!**

Several publicly funded vaccines in Ontario will prevent diseases that can cause pneumonia in children, such as:

- pneumococcal
- *haemophilus influenzae type B* (Hib)
- pertussis (whooping cough)
- chickenpox (varicella)
- measles
- seasonal influenza vaccines



## **OK to go!**

Children with pneumonia may go to school or daycare if they feel well enough to participate in regular activities.

# RESPIRATORY SYNCYTIAL VIRUS

Respiratory syncytial virus, often called RSV, is the most frequent cause of serious infections of the lower respiratory tract (lungs) in infants and in young children. It can occur at any age but most children have been infected by two years of age. RSV usually causes a mild, cold-like infection. Most children recover completely. Repeated infections are common, but a child is usually less sick with repeated infections. It can also cause infections in adults. Older adults are particularly vulnerable. RSV can occur throughout the year but is most common in winter and early spring (November to March). RSV infections last roughly one to two weeks.

## What are the symptoms of RSV?

- fever
- nasal congestion
- runny nose
- cough
- wheezing

## How is RSV diagnosed?

Health care providers diagnose RSV by taking a medical history and doing a physical exam. Generally, in healthy children, it's unnecessary to distinguish RSV from a common cold. However, if a child has other health conditions, a health care provider may want to make a specific diagnosis. In that case, RSV is identified by taking a nasopharyngeal swab (a sample from the back of the nose and throat).

## Are there complications with RSV?

In infants and very young children, RSV can cause more serious infections such as ear infections, pneumonia and bronchiolitis, where the small airways and air spaces of the lungs are affected. At times, these infants and children may require hospitalization.

## How does RSV spread?

RSV is very contagious. It is found in secretions from the nose and mouth, and spreads from person to person through droplets that are coughed, sneezed, or breathed into the air. The virus can survive on surfaces for many hours and can be picked up by the hands. A person can then become infected by touching their eyes or nose with unwashed fingers, or by placing objects such as toys into their mouth.



The illness usually starts within three to six days after contact with an infected person, but may vary from two to eight days. An older child or adult can spread the germs for up to eight days but an infected younger child can remain infectious for as long as three to four weeks.

# RESPIRATORY SYNCYTIAL VIRUS

## Can RSV be treated?

In most cases of RSV, there is no specific treatment other than treating the symptoms. Most healthy children recover completely. Antibiotics are not effective because RSV is a virus. Medication may sometimes be prescribed by a health care provider to help open the child's airways. Some children who are severely ill may need hospitalization to monitor their breathing and for oxygen therapy. Those most at risk requiring hospitalization tend to be newborns and young infants who have underlying medical conditions such as chronic heart or lung disease.

## Can RSV be prevented?

There is no vaccine to prevent RSV. Therefore, it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.

**Important:** An injectable medication is available by prescription to prevent RSV in infants and young children less than 24 months of age who are at the highest risk of contracting severe RSV infection. In such cases, these children would be followed by a specialist (pediatrician or neonatologist).



# RESPIRATORY SYNCYTIAL VIRUS

## Caring for a child with RSV

- Keep the child as comfortable as possible. Allow time for recovery.
- Offer plenty of fluids and small nutritious meals. Infants may not feel like drinking. If that is the case, offer fluids in small amounts at more frequent intervals than usual.
- If the child is uncomfortable and too young to blow his or her own nose, use a nasal aspirator (or bulb syringe) to remove sticky nasal fluids.
- Use a fever medication like acetaminophen (Tylenol®) or ibuprofen (Advil®). Acetylsalicylic acid (ASA) like Aspirin® should not be used in children with viral illnesses, as such use has been associated with Reye syndrome, a life-threatening illness. Ibuprofen should not be given to infants under six months of age without first talking with a health care provider.

## When to seek medical assistance

Advise parents or guardians to take the child to a health care provider if the child has any of the following symptoms:

- thick nasal discharge
- worsening cough or cough that produces yellow, green, or gray mucus
- irritability, inactivity, or refusal to breastfeed or bottle-feed
- is younger than six months of age and has a temperature 38°C or above

**Advise parents or guardians to seek immediate medical assistance at the hospital emergency if the child is having any of the following symptoms:**

- high fever with ill appearance
- difficulty breathing or is breathing very rapidly
- lethargic
- shows signs of dehydration (drinks little fluid and is not urinating at least every six hours when awake)
- lips or fingernails appear blue
- any other serious problem or symptom



### OK to go!

Children with RSV may go to school or daycare if they feel well enough to participate in regular activities.

# RINGWORM

Ringworm is a skin infection caused by a fungus that lives on the dead tissues of your skin, hair, or nails. Ringworm is not an actual worm. A child with ringworm of the skin has a rash that is usually itchy and flaky, but may be wet and crusty.

The rash may be shaped like a ring with a raised edge. This ring pattern gave ringworm its name, but not every person who's infected develops the rings.

Ringworm may affect the body, feet, or scalp. If the scalp is infected, ringworm can cause a flaky patch or a bald area. If the feet are infected, they are usually itchy and the skin between the toes may crack.

The fungal rash of the feet is commonly called "athlete's foot" and can involve all areas of the foot but is usually patchy.

## How does ringworm spread?

Ringworm spreads from person to person by touch. When someone touches or scratches the rash, the fungus sticks to the fingers or gets under the fingernails. The fungus then spreads when that person touches someone else.

Ringworm of the scalp can be spread if combs, hairbrushes, barrettes, bike helmets, headphones, or hats are shared.



### Keep in mind . . .

Be aware that pets can have ringworm and can spread it to other animals and to people.

## Can ringworm be treated?

Ringworm can be treated and cured with an antifungal medication that will help kill the fungus and prevent it from coming back.

Some medications are taken by mouth (orally). Others are ointments or creams that are applied on the infected area. A health care provider will be able to determine the best form of treatment.

The affected area should be washed daily and kept dry. The oral medication, ointment, or cream should be used for as long as the health care provider has prescribed or suggested and it should not be stopped because the rash disappears.

If the medication is not taken properly, or as prescribed by a health care provider, the fungus will reoccur.

# RINGWORM

## Can ringworm be prevented?

- It can be difficult to avoid ringworm because the fungus is very common.
- Remind children to wash their hands after touching the infected skin (*page 1–5*).
- Encourage children and students to not share personal items, such as hairbrushes, face cloths, or towels.
- Students can protect themselves by wearing flip-flops on their feet in the locker room shower or at the pool.
- Wash sports clothing regularly.
- Shower after contact sports.



### **No school or daycare!**

Children with ringworm should NOT go to school or daycare until treatment has been started.

# ROSEOLA

Roseola is an infection caused by a virus. It is common in infants and young children aged 6 to 24 months. It is rare in children younger than four months or older than four years of age.

Most children are not very sick with roseola.

## **What are the symptoms of roseola?**

- fever (often over 39.5°C or 103°F)
- crankiness and irritability
- runny nose
- possible swollen glands in the neck
- possible mild diarrhea

A rash of small red spots appears after the fever ends and when the child appears to be recovering. It starts on the body and spreads to the legs and neck. When someone touches the red spots, they turn white with a lighter ring around them.

The rash lasts one to two days and is not itchy or painful. If a fever develops, monitor the child's temperature, and call the child's parent/guardian to come and pick up the child.

## **How is roseola diagnosed?**

A health care provider can determine the diagnosis based on medical history, a physical exam, and the presence of symptoms. A diagnosis of roseola is often uncertain until the fever drops and the rash appears, so the health care provider may order tests to rule out that the fever is not caused by another type of infection.

## **Are there complications with roseola?**

Most children with the infection are not seriously ill and complications are rare. In certain cases, the fast-rising fever that comes with roseola can trigger seizures.

## **How does roseola spread?**

Roseola is contagious even if there is no rash. It spreads from person to person through close contact with droplets of fluid from the nose and throat of infected people. These droplets are expelled when an infected person talks, laughs, sneezes, or coughs.

People who breathe the droplets in or touch them and then touch their noses or mouths can then become infected. Outbreaks are uncommon, but can happen.

# ROSEOLA



The period between exposure to the virus and the appearance of the symptoms of the illness is around 10 days. Children are probably contagious from two days before the fever starts until the rash appears. The rash usually appears three to five days after the fever.

## Can roseola be treated?

There is no specific treatment for roseola since it is caused by a virus.

- Keep the child as comfortable as possible.
- Make sure that the child gets plenty of rest, plenty of fluids to drink, and eats small nutritious meals.
- Dress the child with a fever in lightweight clothing to avoid causing a higher fever.
- Keep the room comfortable at 20°C (68°F).
- Use pain relievers such as acetaminophen (Tylenol®) or ibuprofen (Advil®). Ibuprofen should not be given to infants under six months of age without first consulting with a health care provider. Avoid giving acetylsalicylic acid (ASA) like Aspirin® to a child who has a viral illness because its use in such cases has been associated with Reye's syndrome.



### Keep in mind . . .

Since the infection usually affects young children but rarely adults, it is thought that a bout of roseola in childhood may provide lasting immunity to the illness.

## Can roseola be prevented?

There is no vaccine to prevent roseola. Therefore, it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.

# ROSEOLA

- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.

## When to seek medical assistance

The child needs to be seen by a health care provider if the child is lethargic, not drinking or if their fever persists. If the child has a seizure, seek emergency medical care immediately.



### OK to go!

Children with roseola may go to school or daycare if they feel well enough to participate in regular activities.

# ROTAVIRUS

Rotavirus is the most common cause of severe diarrhea in children six months to two years of age. Almost all children will have at least one episode of rotavirus diarrhea before five years of age. When older children and adults contract rotavirus, they have a milder illness. They have less diarrhea and are less likely to become dehydrated. Outbreaks in group settings are common. In Canada, rotavirus infections are more common in the winter months.

## **What are the symptoms of rotavirus?**

Symptoms may disappear and then recur.

- vomiting (for a few days)
- watery diarrhea for three to eight days
- fever
- stomach ache and abdominal cramps

## **How is rotavirus diagnosed?**

If a health care provider suspects rotavirus, diagnosis is based on medical history, a physical exam, and the presence of symptoms. The diagnosis is confirmed through a laboratory test taken from a stool sample. In an outbreak situation there is a need to identify rotavirus as the cause of the illness. In these cases, rotavirus may be found in stool samples of infected persons.

## **Are there complications with rotavirus?**

Rotavirus can cause more severe illness than other common causes of diarrhea but it rarely results in death in Canada. Sometimes the diarrhea that accompanies a rotavirus infection can be severe enough to quickly lead to dehydration.

### ***Watch for signs of dehydration:***

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head

# ROTAVIRUS

## How does rotavirus spread?

When children have rotavirus, their stool contains a large number of germs. The virus enters the body through contact with the mouth. Rotavirus spreads if infected people do not wash their hands after going to the toilet or if someone with the illness handles food and drinks and has not washed their hands.

Rotavirus can also spread to the environment. This includes sinks, taps, counters, and toys. The germs can survive a long time on surfaces. People can become ill when they touch these surfaces and put their hands in their mouths. The virus is found in the vomit and feces of people who are ill. When a child vomits or has diarrhea, those nearby may be exposed to tiny droplets in the air.



After exposure to the virus, it takes from two to four days for symptoms to appear. The virus can be found in the feces before symptoms appear and for as long as 21 days after the symptoms begin. Even when diarrhea and/or vomiting have stopped, the virus can still remain in the feces for as long as 21 days after the symptoms appeared.

## Can rotavirus be treated?

There is no medication or direct treatment for a rotavirus infection. It is important to drink plenty of fluids to prevent dehydration. Some infants or young children with dehydration may need to be hospitalized and treated with intravenous (IV) fluids to bring the body's fluid and salt levels back to normal.

## Can rotavirus be prevented?

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.



# ROTAVIRUS



## **This is a vaccine preventable disease!**

The oral rotavirus vaccine (Rotateq®) is provided free of charge to infants as part of the routine immunization schedule at two, four and six months of age.

## **What should I know about the rotavirus vaccine?**

The first dose is to be administered between six weeks and less than 15 weeks of age. The second dose is to be completed before 24 weeks of age and at least four weeks after the first dose.

## **Handling a suspected case of rotavirus**

If a child is sick while at school or daycare, place the child in a separate room away from other children and notify the parent/guardian to pick up the child immediately.

Clean up any diarrhea and/or vomit (*page 1–16*).

You may also refer to *Diarrhea (page 3–18)*, and *Vomiting (page 3-105)* for more information on these conditions.

## **Managing a suspected outbreak of rotavirus**

If two or more children and staff experience two or more episodes of diarrhea and/or vomiting in the same time period (for example, within 48 hours):

- **Daycares** must notify Public Health Sudbury & Districts immediately.
- **Daycares** must initiate *Immediate Measures to Control an Outbreak: For Daycares (page 4–4)*.
- **Schools** may follow the recommendations of *Immediate Measures to Control an Outbreak: Recommendations for Schools (page 4–6)*.



## **No daycare!**

Children and staff with diarrhea and/or vomiting must NOT attend daycare until 48 hours after their symptoms have resolved. It is recommended that school-aged children NOT attend school until they are symptom-free for 48 hours.

# RUBELLA (GERMAN MEASLES)

Rubella, also known as German measles, is an infection caused by a virus. It is a mild disease in children but can be more serious in teenagers and adults.

Rubella is much less common since routine immunization of children against rubella began. People often don't know they have rubella because the disease is so mild and the symptoms are common to many different illnesses.

## What are the symptoms of rubella?

- starts with a low-grade fever
- mild cold-like symptoms
- a light red or pink rash that begins on the face and spreads down the body that lasts a few days—the rash may be itchy
- swollen glands behind the neck and ears
- loss of appetite
- headache
- mild conjunctivitis (inflammation of the lining of the eyelids and eyes)
- pain and swelling in the joints (more common in teens and adults)
- as the rash clears, the affected skin occasionally sheds in very fine flakes

Many people experience very mild or no symptoms.

## How is rubella diagnosed?

Rubella is diagnosed based on medical history, a physical exam, and the presence of symptoms. Many rash illnesses may mimic rubella, the only way to confirm the infection is by a health care provider ordering a blood test and sending the sample to a lab to detect the rubella virus. Blood tests are also done to confirm if a person is immune to the disease.



### Keep in mind . . .

If parents are planning to take their child to a health care provider, the office should know in advance that the child might have rubella and can take appropriate precautions to avoid exposing other children to rubella.

## Are there complications with rubella?

The illness lasts about three days and generally children get better on their own without any complications. Lymph nodes may remain swollen for a week or more, and joint pain can last for more than two weeks. Children who have rubella usually recover within one week, but adults may take longer.

# RUBELLA (GERMAN MEASLES)



## Pregnancy and rubella

Rubella is very serious in pregnant women because it can cause congenital rubella syndrome with potentially devastating consequences for the unborn child, such as growth retardation, mental retardation, malformations of the heart and eyes, deafness, and liver, spleen, and bone marrow problems.

- If a pregnant woman acquires rubella during the **first five months of pregnancy**, she usually passes the disease on to her unborn infant (fetus).
- If the fetus acquires rubella during the **first 12 weeks of pregnancy**, the infant will likely be born with many problems. The most common are eye problems, hearing problems, and damage to the heart. These are life-long problems.
- If the fetus acquires rubella between **12 and 20 weeks of pregnancy**, problems are usually milder.
- If the fetus acquires rubella after **20 weeks of pregnancy**, there are usually no problems.

## How does rubella spread?

Rubella spreads by contact with droplets that are coughed, sneezed, or breathed into the air by someone with rubella, or by contact with the saliva or discharge from the nose of someone with rubella. The rubella virus can also pass through a pregnant woman's bloodstream to infect her unborn child.



The incubation period for rubella is 14 to 23 days, with an average incubation period of 16 to 18 days. This means that it can take two to three weeks for a child to get rubella after being exposed to someone with the disease. Rubella is contagious for seven days before the rash appears and for at least four days after the rash first appears.

Infants born with congenital rubella syndrome are contagious for a year or more after birth since the virus remains present in the saliva and the urine, therefore possibly passing the virus to people who have not been immunized.

## Can rubella be treated?

There is no treatment for rubella. Antibiotics are not effective because the infection is caused by a virus. To help manage symptoms, provide the child with plenty of fluids and encourage extra rest.

# RUBELLA (GERMAN MEASLES)

Acetaminophen (Tylenol®) or ibuprofen can relieve some symptoms such as headaches and aches and pains. Unless there are complications, rubella goes away on its own.

## Can rubella be prevented?

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- A well-balanced diet is important in improving and maintaining children's natural defences.



### This is a vaccine preventable disease!

The best protection against rubella is vaccination. The rubella vaccine is provided free of charge to healthy children aged one year and older as part of routine immunization.



### Vaccine required for school entry!

Provincial law in Ontario requires that all children attending school or daycare are vaccinated against measles, mumps, and rubella unless they are exempt for medical or philosophical reasons.

## What should I know about the rubella vaccine?

It is routinely given in two doses. The first dose is offered to children at one year of age, or shortly after they turn one year of age. It is a combined vaccine that also includes vaccination against measles and mumps (MMR).

# RUBELLA (GERMAN MEASLES)

The second dose of rubella is administered according to the routine immunization schedule between four to six years of age in a combined vaccine that also includes vaccination against measles, mumps, and varicella (MMRV vaccine).



## Pregnancy and rubella vaccine

Rubella in pregnancy is now very rare in Canada because most women have been vaccinated against it. The vaccine prevents most—but not all—rubella infections during pregnancy.

- If you have had the rubella infection or have antibodies from the vaccine, you are likely protected.
- If you aren't sure you are protected, you can have a blood test through a health care provider **before becoming pregnant**. The test will tell you if you are protected against rubella.
- If the blood test shows you are not protected, you should receive the measles, mumps, rubella (MMR) vaccine right away before becoming pregnant.
- Pregnancy should be delayed for at least **one month** after receiving the MMR vaccine.
- **If you are already pregnant**, and the test shows you are not protected, you cannot receive the vaccine until after the birth of the infant.
- **Important:** Any pregnant woman who has been exposed to rubella should contact her health care provider immediately.

## Handling a suspected case of rubella

If you suspect that a child at school or daycare has rubella, contact the parent/guardian to come and pick up their child as soon as possible. The child needs to be isolated from the other children until the parent/guardian arrives. Advise the parent/guardian to have their child assessed by a health care provider.



## No school or daycare!

Children with rubella should NOT go to daycare until seven days after the rash appears. Exclusion will be at the discretion and direction of the Medical Officer of Health of exposed, susceptible children and staff who are unimmunized and have been in contact with a confirmed case of rubella.



## This disease must be reported in Ontario!

If there is a case of rubella in a child or adult at school or daycare, **immediately report the case** by fax or telephone to Public Health Sudbury & Districts. See the *Immediate Reporting of Communicable Diseases* form (Resource Section).

# SCARLET FEVER

Scarlet fever is one of several forms of infections caused by Group A streptococcal bacteria. Scarlet fever is found most often in children between the ages of two and eight years, but can occur at any age.

Group A streptococcal bacteria can cause different types of infections. In addition to scarlet fever, they include:

- strep throat (*page 3–107*)
- tonsillitis (*page 3–113*)
- skin infections such as impetigo (*page 3–35*)
- ear infections (*page 3–25*)

These infections are unpleasant but do not usually pose a serious threat to health.

## **What are the symptoms of scarlet fever?**

A child with scarlet fever often has a whitish, furry-looking tongue that becomes strawberry red in colour. After the start of the sore throat and fever (18 to 24 hours later) a red rash that feels like sandpaper appears first on the neck and face, spreads to the chest and back, and then two days later to the rest of the body. This scarlet-colored rash, from which the illness gets its name, is caused by a toxin (poison) that is produced by the Group A streptococcal bacteria.

The rash begins looking like a bad sunburn with tiny bumps and it may itch. In body creases, especially around the underarms and elbows, the rash forms classic red streaks. Areas of rash usually turn white when you press on them. The rash usually fades after six days and but the affected skin may begin to peel. This peeling may last up to 10 days.

## **Other symptoms include:**

- reddened sore throat
- fever above 38.3° C (101° F)
- swollen glands in the neck
- tonsils and back of the throat may be covered with a whitish coating or appear red, swollen, and dotted with whitish or yellowish specks of pus
- chills and body aches
- general ill feeling with nausea, vomiting, and loss of appetite
- at times, an increase in heart rate

# SCARLET FEVER

Not all streptococcal bacteria produce a toxin and not all children are sensitive to it. Two children in the same family may both have strep infections, but one child (who is sensitive to the toxin) may develop the rash of scarlet fever while the other may not.

## How is scarlet fever diagnosed?

It is important for the child to be assessed by a health care provider. To diagnose the cause of the child's rash or sore throat, the health care provider will thoroughly examine the child by looking in the throat, as well as the ears and nose; gently feel (palpate) the neck to check for swollen glands; and listen to the child's breathing and heart with a stethoscope to look for other signs of infection. Palpation of the pulse and auscultation of the heart may reveal an increased heart rate.

To confirm the diagnosis, the health care provider will take a throat swab of the secretions from the back of the throat. The sample is then sent to the lab for analysis to determine if the infection is caused by Group A streptococcal bacteria.

## Are there complications with scarlet fever?

Lack of treatment or not finishing the prescribed course of antibiotics can put the child at risk for serious complications. Complications due to the spread of the infection can occur early in the infection and may include the following:

- ear infection (otitis media)
- throat infection and abscess
- pneumonia
- meningitis and brain abscess

Other complications of streptococcal infections include: rheumatic fever (which can cause permanent damage to the heart) and post-streptococcal glomerulonephritis (kidney disease).



### Pregnancy and scarlet fever

A pregnant woman who believes she was exposed to, or has contracted scarlet fever should seek the advice of her health care provider, and prompt treatment if necessary. The treatment for scarlet fever is antibiotics.

A high temperature that may accompany scarlet fever is the biggest concern for pregnant women, particularly when it occurs early in the pregnancy. High temperature is linked to certain birth defects, and fevers are overall not healthy for a fetus. Prompt treatment of scarlet fever will avoid such risks and complications from the disease.

# SCARLET FEVER

## How does scarlet fever spread?

Group A streptococcal bacteria are found in the mouth, throat, and nasal fluids of an infected person. The infection can spread through contact with droplets shed in the air when an infected person talks, coughs, or sneezes.

People can contract a Group A streptococcal infection and become ill, if they touch their eyes, nose, or mouth after touching something contaminated with these droplets. Also, sharing dishes or cups with someone who has the illness can also spread the infection.



The period between exposure to Group A streptococcal infection and the appearance of the symptoms of the illness is usually from one to three days. Within 24 hours after starting the antibiotics, the child will no longer be contagious. Scarlet fever can be contagious for 10 to 21 days if untreated.

## Can scarlet fever be treated?

Once a health care provider diagnoses the child with scarlet fever, an antibiotic will be prescribed to cure the infection. The child has to take all the medication to prevent the infection from returning, even if the signs of illness have gone away. Now that antibiotics are used to treat streptococcal infections, scarlet fever is not a common disease.



### Keep in mind . . .

A child who has scarlet fever once will usually be immune for life and does not have any risk of recurrence.

## Can scarlet fever be prevented?

There is no vaccine to prevent scarlet fever caused by Group A streptococcal bacteria. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.



# SCARLET FEVER

- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- If a child had the infection at school or daycare, monitor signs of streptococcal infections in other children and staff.

For information on caring for a child with scarlet fever, strep throat, or tonsillitis, refer to *Caring for a child with a streptococcal infection (Appendix D)*.



## **No school or daycare!**

Children with scarlet fever should NOT attend school or daycare until antibiotic treatment is prescribed and taken for at least 24 hours.

# SHINGLES

Shingles looks like chickenpox and is caused by the same virus. It usually appears on one part of the body. Only people who have already had chickenpox can get shingles. After someone has had chickenpox, the virus remains in the person's nerve cells.

For some reason which is not yet clear, at some time later in life, the virus reactivates when a person is stressed. The risk also increases with age.

## **What are the symptoms of shingles?**

- throbbing, stabbing or sharp pain (early warning sign)
- unusual skin sensations including tingling, numbness, burning, or sensitivity noted in one area of the body
- mild fever and fatigue
- a rash, which looks like small fluid-filled blisters
- blisters can be very painful and cause a tingling or burning sensation

The rash will break out in the areas of the body connected to nerve cells. As a result, only one section or one side of the body is affected. Most often affects the back, chest, the neck, the face, or the scalp but can occur on any part of the body.

## **How is shingles diagnosed?**

A health care provider can usually diagnose shingles based on the history of pain on one side of the body along with the telltale rash and blisters.

At times, the health care provider confirms the diagnosis by collecting a sample from the fluid inside the blisters and sending it to a laboratory for analysis.

## **Are there complications with shingles?**

The most common complication of shingles is pain after the rash has healed, which may last several weeks, months, or even years. This may be due to lasting nerve damage caused by the virus. The risk of experiencing continued pain after the rash increases with age.

## **How does shingles spread?**

A person with shingles can pass the virus to anyone who is not immune to chickenpox. This usually occurs through direct contact with the open sores or blisters of the shingles rash or through indirect contact with articles soiled from the blisters' fluid.

Once infected, the person will develop chickenpox (not shingles).

# SHINGLES



## **Pay careful attention!**

The varicella virus can be dangerous for some groups of people. Until the shingles blisters scab over, the person is contagious and physical contact should be avoided with newborns, pregnant women, and anyone who has a weakened immune system.

## **Can shingles be treated?**

There are several effective treatments for shingles. If shingles is suspected, consult with a health care provider immediately. Prescribed medications that fight viruses (antivirals) can reduce the severity, the duration of the rash, and the risk of complications if administered within 48 to 72 hours from the appearance of the rash. In addition to antiviral medications, prescribed or over-the-counter pain medications may be needed to reduce the pain caused by shingles.

## **Dealing with discomfort**

There are a few things that can help ease the discomfort caused by the shingles rash.

- The affected area should be kept clean and dry.
- Icepacks or cool moist compresses applied on the rash and anti-itching lotions such as calamine lotion can provide relief.
- The area can be cleansed with soap and cool water.
- Loose-fitting clothing should be worn to avoid rubbing on the vesicles.
- Get plenty of rest to help the body fight off the infection.

## **Can shingles be prevented?**

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Avoid sharing blankets, bed sheets, towels, facecloths, clothing, or other items among children and staff. All articles which were in contact with infected skin should be washed in hot water and detergent then dried at a high temperature.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- To prevent the child from spreading blisters to other parts of the body, or if there's a possibility that another person may come in contact with infected skin, keep the infected areas of skin covered with gauze and tape or a band-aid.

# SHINGLES

- Keep affected areas clean and covered to prevent them from becoming infected.
- The child's fingernails should be kept short and clean to prevent the child from scratching the blisters or sores.
- Gently wash the areas of infected skin with clean gauze and antiseptic soap every day.



## **This is a vaccine preventable disease!**

There is no shingles-specific vaccine for children, however the varicella vaccine (chickenpox vaccine) is offered to children over 12 months of age to prevent chickenpox. The Zostavax® and Shingrix® vaccines are used to help prevent shingles in people 50 years of age or older.

## **Medication for people at high risk of complications from varicella virus**

There is an antiviral medication for people with a high risk of complications if they get chickenpox or shingles. This medication is available for the following at-risk individuals:

- people over 13 years of age
- children over one year of age with chronic skin or lung disorders
- children on chronic aspirin treatment
- pregnant women
- people with immune system problems

This medication must be prescribed by a health care provider and given within 24 hours after the rash develops. It is not recommended for healthy children who get chickenpox.



## **OK to go!**

Children with shingles may go to school or daycare if they have no fever and if they feel well enough to participate in regular activities regardless of the state of the rash.

# STREP THROAT

Strep throat (streptococcal sore throat) is one of several infections caused by Group A streptococcal bacteria. These bacteria may be present and not cause disease or they may cause mild symptoms. Streptococcal infections can occur at any age but are most common in school-aged children and teens. They occur most often during the school year when big groups of children and teens are in close quarters. Adults may also be affected.

Group A streptococcal bacteria can cause different types of infections. In addition to strep throat, they include:

- tonsillitis (*page 3–101*)
- scarlet fever (*page 3–88*)
- skin infections such as impetigo (*page 3–29*)
- ear infections (*page 3–21*)

These infections are unpleasant but do not usually pose a serious threat to health. Not all sore throats are strep throats. Most episodes of sore throat which can be accompanied by a runny nose, cough, hoarseness, and red eyes, are caused by viruses and usually clear up on their own without medical treatment.

## **What are the symptoms of strep throat?**

Children with strep throat may have some or all of these symptoms:

- a very sore throat
- difficulty swallowing
- red and white patches in the throat
- fever
- headache and stomach ache
- swollen, tender glands (in the neck)
- red and swollen tonsils (tonsillitis)
- sores around the nose
- loss of appetite and nausea
- vomiting
- general discomfort
- fatigue, lack of energy

Children younger than three years of age with streptococcal infection rarely have a sore throat. They may have a discharge from the nose, bad breath, fever, loss of appetite, and irritability.

# STREP THROAT



## **Keep in mind . . .**

A child can get strep throat more than once because immunity does not build up against this type of infection.

## **How is strep throat diagnosed?**

If a child has a sore throat and other strep throat symptoms, the child should be examined by a health care provider. The health care provider will diagnose strep throat in the child by doing a thorough physical exam which includes: looking in the throat as well as the ears and nose; gently feeling (palpating) the neck to check for swollen glands; and listening to the child's breathing with a stethoscope to look for other signs of infection.

Other bacteria and viruses can both cause a sore throat. It's important for the health care provider to know if the infection is caused by Group A streptococcal bacteria or a virus. The health care provider will confirm the diagnosis by taking a throat swab. The sample is sent to the laboratory for analysis to determine if the infection is caused by Group A streptococcal bacteria.

## **Are there complications with strep throat?**

Group A streptococcal infections only pose a potentially serious threat to health if they penetrate deeper inside the tissues and organs of the body and trigger what is known as an invasive infection. This can happen if strep throat is left untreated.

Lack of treatment or failure to complete the prescribed course of antibiotics can put the child at risk for serious complications from streptococcal infections. Scarlet fever can also be a complication from strep throat.

Although rare, two of the most severe forms of invasive streptococcal infections are:

- Necrotizing fasciitis, also known as “flesh eating disease,” is a rare but a very serious skin infection that can cause rapid damage and then death to skin tissue.
- Streptococcal toxic shock syndrome is a rare but an extremely severe illness characterized by a rapid drop in blood pressure and shock. Other symptoms can include kidney impairment, acute respiratory distress, and inability of the blood to clot. Death can occur in people who develop streptococcal toxic shock syndrome.

Other complications of streptococcal infections include: rheumatic fever (which can cause permanent damage to the heart) and post-streptococcal glomerulonephritis (kidney disease).

# STREP THROAT



## **Pregnancy and strep throat**

If a pregnant woman suspects she has contracted strep throat, particularly if the illness is accompanied by a fever, she should check with her health care provider and seek a diagnosis as quickly as possible. If the health care provider determines that the infection is strep throat, an antibiotic treatment should be started as soon as possible. Certain antibiotics available are safe for the mother as well as her infant.

## **How does strep throat spread?**

Group A streptococcal bacteria are found in the mouth, throat and nasal fluids of an infected person. The infection can spread through contact with droplets shed in the air when an infected person talks, coughs, or sneezes.

People can contract a Group A streptococcal infection and become ill, if they touch their eyes, nose, or mouth after touching something contaminated with these droplets. Also, sharing dishes or cups with someone who has the illness can also spread the infection.



The period between exposure and the appearance of the symptoms of the illness is usually from one to three days. Within 24 hours after starting the antibiotics, the child will no longer be contagious. If left untreated, a child with strep throat is most infectious when the symptoms are the most severe but could remain contagious for up to 21 days.

## **Can strep throat be treated?**

A health care provider can treat and cure strep throat with an antibiotic. The child should feel better in one or two days starting the antibiotic but should take all the prescribed medication to prevent the infection from returning, even if the signs of the illness are gone away.

## **Can strep throat be prevented?**

There is no vaccine to prevent strep throat caused by Group A streptococcal bacteria. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.

# STREP THROAT

- Practice *Cough and Sneeze Etiquette* (page 1–8) in your school or daycare. Teach children the proper procedure.
- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (page 1–15). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- If a child had the infection at school or daycare, monitor signs of streptococcal infections in other children and staff.

For information on caring for a child with scarlet fever, strep throat, or tonsillitis, refer to *Caring for a child with a streptococcal infection* (Appendix D).



## **No school or daycare!**

Children with strep throat should NOT attend school or daycare until antibiotic treatment is prescribed and taken for at least 24 hours.



# THRUSH

Thrush is a very common infection in infants that causes irritation in and around the infant's mouth. It is caused by the overgrowth of yeast (a type of fungus) called *Candida albicans*. *Candida* overgrowth mostly occurs in moist and warm areas of the body causing oral thrush in the mouth or *Candida diaper rash* (page 3–15) in the genital/buttocks areas. Most people (including infants) naturally have *Candida* fungus in their mouths, and their digestive and intestinal tracts. The amount is controlled by a healthy immune system and “good bacteria”. If the immune system is weakened due to illness, stress medication, or it is not fully developed (as is the case in infants), the *Candida* fungus can overgrow and lead to an infection.

Antibiotics administered to an infant or a breastfeeding mother may cause thrush in the infant, as the antibiotics are transferred to the infant through the mother's breast milk. Children who use a steroid inhaler for asthma or hay fever may also get thrush. The *Candida* fungus overgrows by killing off all the “good” bacteria by the antibiotic or the steroid.

## What are the symptoms of thrush?

Thrush looks like whitish-grey patches on the inside of the cheek, the roof of the mouth, on the tongue or on the gums. Although the patches look like milk or cottage cheese, they cannot be rubbed off. Thrush is not usually painful. However, in severe cases, the mouth may be so sore that it hurts to suck and infants will have difficulty feeding.

## How is thrush diagnosed?

If a parent thinks their infant has thrush, a health care provider can confirm the diagnosis by examining the infant's mouth.

## How does thrush spread?

*Candida* infection is spread by touching feces, or fluids of the mouth, skin, and vagina. It can be passed on from the mother to her newborn during childbirth. Transmission will likely occur when lesions are present.



Thrush is usually seen two to five days after being in contact with the infection. Thrush is contagious until the lesions in the mouth heal.

## Can thrush be treated?

- Some cases of thrush go away without medical treatment within one or two weeks however the health care provider may prescribe an antifungal solution for the infant's mouth.

# THRUSH

- This oral liquid medication is usually applied by painting it on the inside of the mouth and tongue with a sponge applicator.
- When a mother is breastfeeding, both the mother and the infant must be treated. Mothers may continue to breastfeed unless told otherwise by a health care provider.
- Depending on the infant's age, the health care provider may suggest adding yogurt to the child's diet. The "good" bacteria in yogurt can help eliminate the yeast in the child's mouth.



## Keep in mind . . .

Because *Candida* is a fungus, antibiotic treatments will not work on thrush.

## Can thrush be prevented?

There is no vaccine to prevent *Candida* infection, therefore it is important to take precautions to prevent the illness from spreading.

- Thoroughly wash and boil all items (for example, toys, pacifiers, bottle nipples, teethingers) that come in contact with the infant's mouth at least once a day.
- Items should be washed in hot soapy water, rinsed, boiled for 10 minutes, and allowed to air dry.
- Pacifiers, bottle nipples, and teethingers should be discarded and replaced with new ones after one week of treatment has been completed.

## Daycares Only

### Caring for an infant or child with thrush

- Rinse bottle nipples in cool water to remove milk. Then wash in hot, soapy water. Rinse and air dry.
- Boil bottle nipples and pacifiers for one to five minutes once a day. Bottle nipples and pacifiers can also be washed in a dishwasher. There is no need to boil nipples or pacifiers that have been washed in a dishwasher.
- Frequent boiling or dishwasher cleaning may cause bottle nipples and pacifiers to break down. Throw away nipples and pacifiers that become cracked, damaged, or "sticky".
- Wash your hands often (*pages 1–4 and 1–5*) while caring for an infant or a child with thrush.



## OK to go!

Children with thrush may go to school or daycare if they feel well enough to participate in regular activities.

# TONSILLITIS

Tonsillitis is an inflammation of the tonsils caused by viral or bacterial infections. Tonsillitis is most commonly found in children from three to seven years of age, who have larger tonsils than adults and older children.

Tonsils are the fleshy clusters of tissue on both sides of the back of the throat that produce antibodies to fight off germs that enter the body through the mouth. If streptococcal bacteria cause the tonsillitis, the tonsils will become enlarged, red, and have a yellow or white coating.

Group A streptococcal bacteria can cause different types of infections. In addition to tonsillitis, they include:

- strep throat (*page 3–95*)
- scarlet fever (*page 3–88*)
- skin infections such as impetigo (*page 3–29*)
- ear infections (*page 3–21*)

These infections are unpleasant but do not usually pose a serious threat to health.

## **What are the symptoms of tonsillitis?**

- sore throat
- fever
- painful swollen glands in the neck
- trouble eating, drinking, or even swallowing
- general ill feeling
- tired, lack of energy
- headache
- lack of appetite
- vomiting
- bad breath

## **How is tonsillitis diagnosed?**

The health care provider will diagnose tonsillitis in the child by doing a thorough physical exam which includes: looking in the throat to view the tonsils as well as the ears and nose; gently feeling (palpating) the neck to check for swollen glands; and listening to the child's breathing with a stethoscope to look for other signs of infection.

Bacteria and viruses can both cause tonsillitis. It's important for the health care provider to know if the infection is caused by streptococcal bacteria or a virus.

# TONSILLITIS

The health care provider will confirm the diagnosis by taking a throat swab. The sample is sent to the laboratory for analysis to determine if the infection is caused by Group A streptococcal bacteria.

## Are there complications with tonsillitis?

Bacterial tonsillitis can cause peritonsillar abscesses (quinsy). These abscesses occur when a clump of bacteria are “walled off” by new tissue growth. Unlike simple tonsillitis, quinsy tends to be felt on only one side of the throat, and people with this condition can often be seen tilting their head to one side to reduce pain.

Streptococcal infections only pose a potentially serious threat to health if they penetrate deeper inside the tissues and organs of the body and trigger what is known as an invasive infection. This can happen if tonsillitis caused by streptococcal bacteria is left untreated.

Lack of treatment or failure to complete the prescribed course of antibiotics can put the child at risk for serious complications.

Although rare, two of the most severe forms of invasive streptococcal infections are:

- Necrotizing fasciitis, also known as “flesh eating disease,” is a rare but a very serious skin infection that can cause rapid damage and then death to skin tissue.
- Streptococcal toxic shock syndrome is a rare but an extremely severe illness characterized by a rapid drop in blood pressure and shock. Other symptoms can include kidney impairment, acute respiratory distress and inability of the blood to clot. Death can occur in people who develop streptococcal toxic shock syndrome.

Other complications of streptococcal infections include: rheumatic fever (which can cause permanent damage to the heart) and post-streptococcal glomerulonephritis (kidney disease).



### Pregnancy and tonsillitis

If a pregnant woman contracts tonsillitis, particularly if the illness is accompanied by a fever, she should check with her health care provider and seek a diagnosis as quickly as possible.

If the health care provider determines that the infection is tonsillitis caused by *Group A streptococcus*, antibiotic treatment should be started as soon as possible. Certain antibiotics are safe for the mother as well as the infant.

# TONSILLITIS

## How does tonsillitis spread?

Streptococcal bacteria are found in the mouth, throat, and nasal fluids of an infected person. The infection can spread through contact with droplets shed in the air when an infected person talks, coughs, or sneezes.

People can contract a Group A streptococcal infection and become ill if they touch their eyes, nose, or mouth after touching something contaminated with these droplets. Sharing dishes or cups with someone who has the illness can also spread the infection.



The period between exposure to Group A streptococcal infection and the appearance of the symptoms of the illness is usually from one to three days. Within 24 hours after starting the antibiotics, the child will no longer be contagious. If left untreated, a child is most infectious when the symptoms are the most severe but could remain contagious for up to 21 days.

## Can tonsillitis be treated?

If tonsillitis is caused by Group A streptococcal bacteria, the health care provider will prescribe antibiotics to kill the bacteria. It's very important to take the antibiotics exactly as prescribed and finish the entire prescription to kill all the bacteria, even if the signs of illness have gone away. If tonsillitis is caused by a virus, antibiotics will not be effective; in that case the body will fight off the infection on its own.

Sometimes children require an operation (tonsillectomy) to remove the tonsils, but only if their tonsils are infected often during the year or are so big they make it hard for the child to breathe at night. Tonsillectomy is only considered as a last resort these days.

## Can tonsillitis be prevented?

There is no vaccine to prevent tonsillitis caused by Group A streptococcal bacteria. Therefore it is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Practice *Cough and Sneeze Etiquette* (*page 1–8*) in your school or daycare. Teach children the proper procedure.

# TONSILLITIS

- Avoid unnecessary close contact (such as hugging) with others who may be sick.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Encourage children to not put their fingers into their eyes, nose, or mouth.
- Throw used tissues in the garbage right away.
- If a child had the infection at school or daycare, monitor signs of streptococcal infections in other children and staff.

For information on caring for a child with scarlet fever, strep throat, or tonsillitis, refer to *Caring for a child with a streptococcal infection (Appendix D)*.



## **No school or daycare!**

Children with tonsillitis caused by Group A streptococcal bacteria should NOT attend school or daycare until antibiotic treatment is prescribed and taken for at least 24 hours.

# VOMITING

Vomiting is most often caused by a virus. Bacteria, parasites, foods that are hard to digest, and other things such as stress, or even car travel may also cause a child to vomit. Vomiting may also be a sign of other infectious or serious non-infectious illness such as appendicitis.

## **What are the symptoms of vomiting?**

- Nausea is an unpleasant, queasy feeling in the throat or stomach that may result in vomiting.
- Vomiting is the forceful expulsion of the stomach's contents through the mouth.

## **Are there complications with vomiting?**

Vomiting can be harmful to a child because of the danger of dehydration. Dehydration occurs when too much fluid is lost from the body.

Children who are vomiting must drink enough fluids to prevent dehydration. This is especially important for infants and young children who cannot take in enough fluids and can become dehydrated quickly.

### ***Watch for signs of dehydration:***

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head

## **How does vomiting spread?**

Germs that cause vomiting spread easily from person to person and especially from child to child in food or water, or through contact with feces and contaminated surfaces.

# VOMITING

## Can vomiting be prevented?

It is important to take precautions to prevent the illness from spreading.

- Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*). Proper handwashing is especially important after using the toilet, after every diaper change, and before eating or preparing food!
- Clean and disinfect all common surfaces (doorknobs, light switches, tables, desks, etc.), and frequently clean and disinfect the establishment.
- Toys that young children put into their mouths should not be shared until they are cleaned and disinfected, or laundered (*page 1–15*). Also clean and disinfect bottle nipples, sippy cups, and other items that come in contact with the mouth.
- Avoid sharing food, drinks, eating utensils, linens, towels, or other personal items that can come into contact with body fluids among children and staff.
- Encourage children to not put their fingers into their eyes, nose, or mouth.

## Handling a suspected case of vomiting

- Separate the child from the group and watch for other signs of illness. Avoid washing vomit stained clothes in your institution. Put them in a sealable waterproof plastic bag, and return them to the parent/guardian.
- If no more episodes of vomiting occur and the child does not appear to be ill, let the child return to the group and inform the parent/guardian at the end of the day.
- If two or more episodes of vomiting occur, inform the child's parent/guardian as soon as possible and tell them to pick up the child.
- If the child appears to have pain in the abdomen, inform the parent/guardian immediately. Ask them to pick up the child and seek medical assistance.
- Clean and disinfect the area where the child has vomited as soon as possible (*page 1–16*).
- Wash hands thoroughly (*page 1–5*).
- Monitor other children for signs of vomiting.



### Keep in mind . . .

If the child is also experiencing bouts of diarrhea, refer to *Diarrhea* (*page 3-18*) for more information.



# VOMITING

## Handling a suspected outbreak of vomiting

If two or more children and staff experience two or more episodes of diarrhea and/or vomiting in the same time period (for example, within 48 hours):

- **Daycares** must notify Public Health Sudbury & Districts immediately.
- **Daycares** must initiate *Immediate Measures to Control an Outbreak: For Daycares (page 4–4)*.
- **Schools** may follow the recommendations of *Immediate Measures to Control an Outbreak: Recommendations for Schools (page 4–6)*.

## When to seek medical attention

Parents should be advised to seek medical attention or bring their child to the hospital emergency as soon as possible in cases that involve:

- a high fever (over 38°C)
- repeated vomiting
- blood in bowel movements
- projectile or forceful vomiting in an infant less than three months old
- vomiting starting after a head injury
- vomiting of bright green or yellow-green fluid, blood, or vomit resembling coffee grounds
- vomiting with swelling, redness, or pain in a boy's scrotum
- signs of dehydration
- abdominal pain that will not go away or is getting worse
- any other unusual symptoms



### **No school or daycare!**

Children and staff with diarrhea and/or vomiting must NOT attend daycare until 48 hours after their symptoms have resolved. It is recommended that school-aged children NOT attend school until they are symptom-free for 48 hours.



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Part 4:

# Outbreak Management

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# ROLE OF THE PUBLIC HEALTH SUDBURY & DISTRICTS

Public Health Sudbury & Districts is required by the *Ministry of Health and Long-Term Care* to assist daycares in the management of outbreaks including:

- declaration of the outbreak
- enforcing control measures
- providing support and education to the staff and families affected

Outbreaks in schools are rarely declared by Public Health Sudbury & Districts. There is no legislation which provides Public Health Sudbury & Districts with the right to enforce the same requirements in schools as there are with daycares.

Although it is unlikely Public Health Sudbury & Districts will declare an outbreak in your school, if there is an increase of illness Public Health Sudbury & Districts will provide you with best practice information and recommendations on how to prevent the spread of the illness.

Due to the differences of outbreak management in schools and daycares, this section has been divided into two parts: the first is dedicated to outbreak management in daycares and the second is dedicated to information for schools.

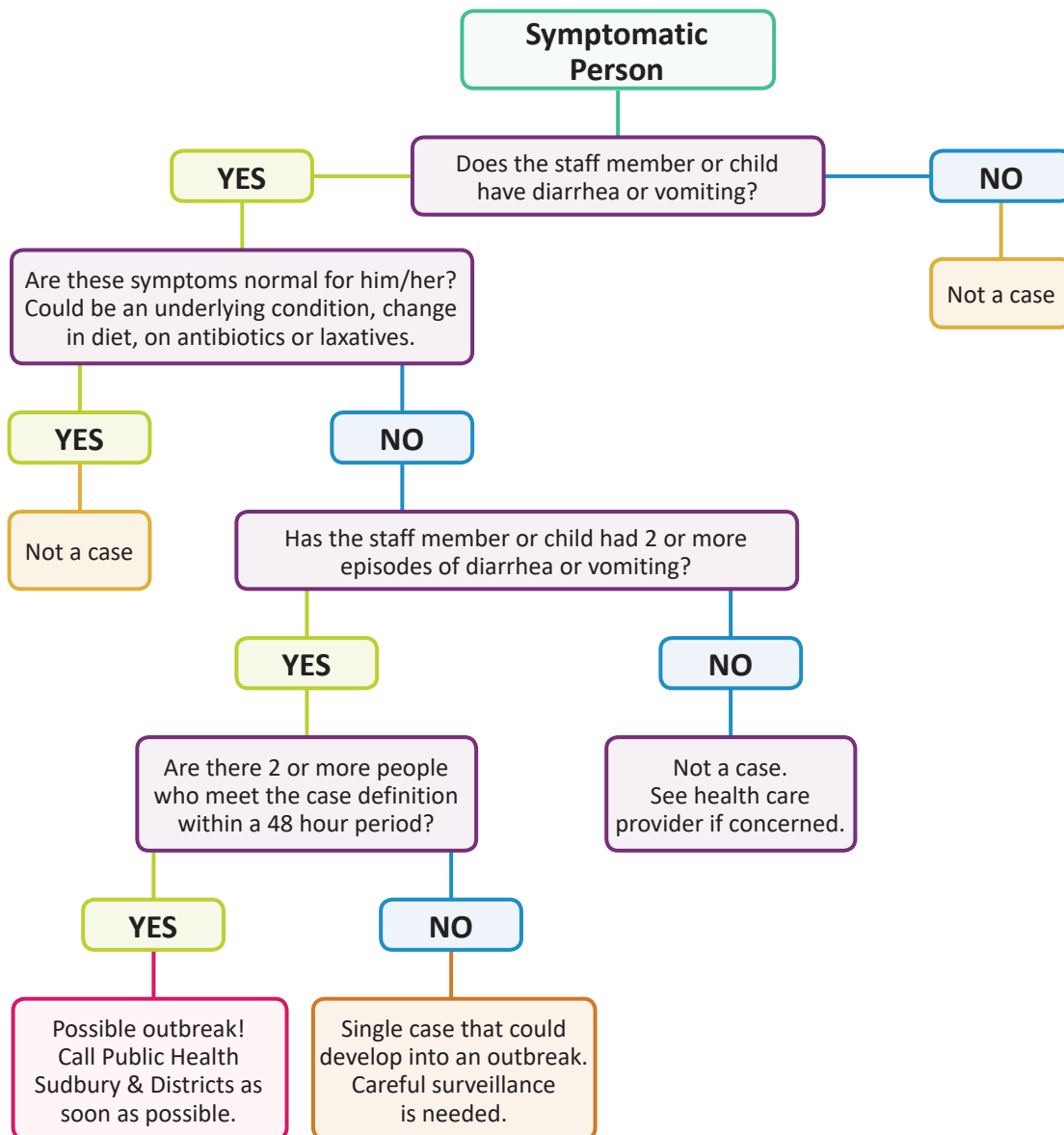
Please refer to the appropriate section for your establishment.

# IDENTIFYING AN OUTBREAK

An outbreak is when more than the usual number of children or staff become ill with the same symptoms within the same time period (see diagram). If two or more cases of similar symptoms over a similar time period (48 hours) occur, notify Public Health Sudbury & Districts immediately. A public health inspector or a public health nurse will assist you in deciding if an outbreak exists and will help you bring the outbreak under control.

## ENTERIC OUTBREAK

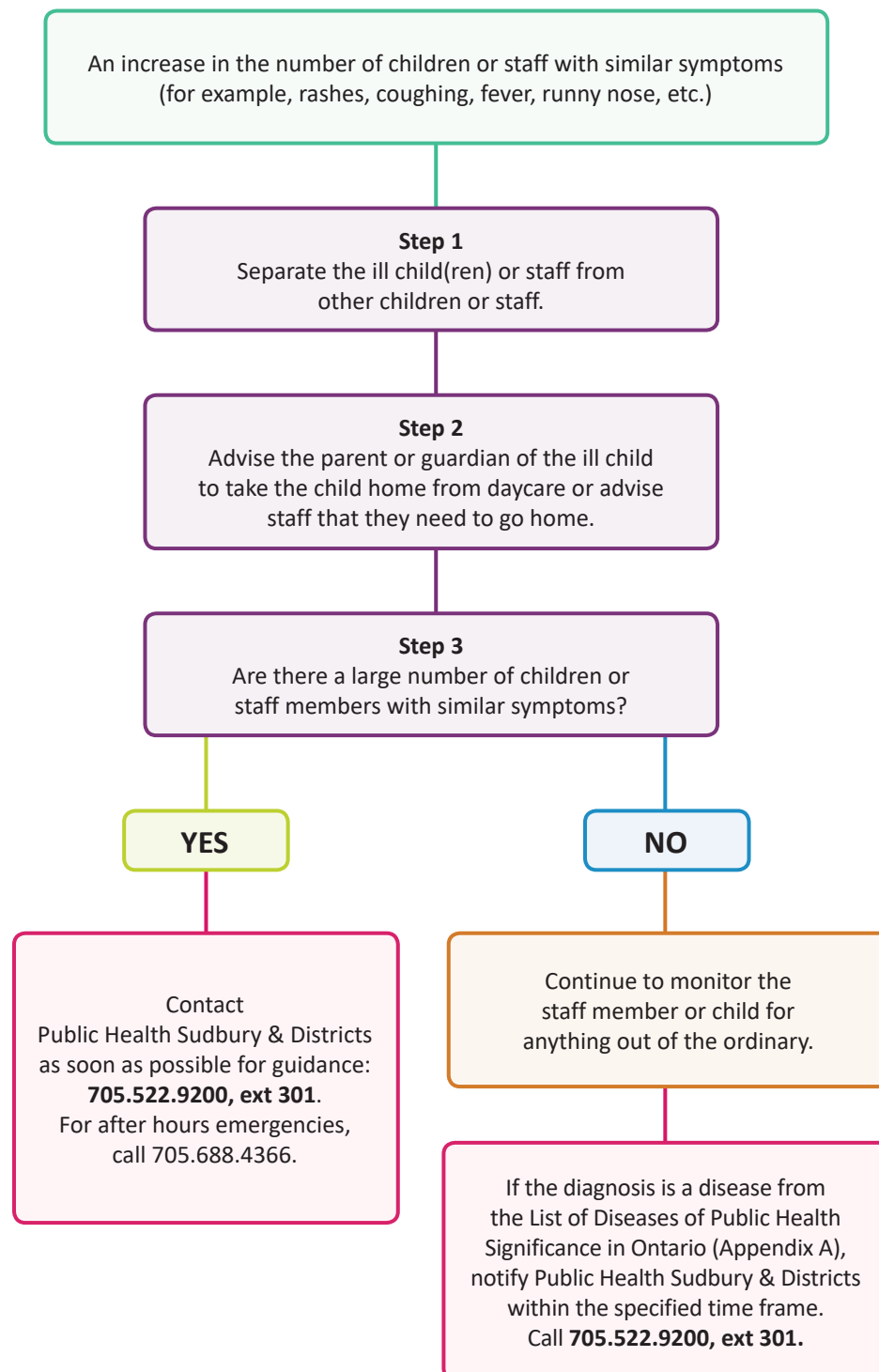
The following diagram will help determine if there is an enteric outbreak at your school or daycare.



# IDENTIFYING AN OUTBREAK

## NON-ENTERIC OUTBREAK

The following diagram will help determine if there is a non-enteric outbreak at your school or daycare.



# IMMEDIATE MEASURES TO CONTROL AN OUTBREAK

## FOR DAYCARES

1. Notify Public Health Sudbury & Districts.
2. Create a line listing (*Resource Section*) and be sure to include the following information for immediate viewing by Public Health staff:
  - the number of ill children and staff members
  - symptoms experienced
  - duration of illness
  - age group of the child
  - when the symptoms first began
3. Increase staff surveillance to identify new cases.
4. Increase handwashing of staff and children, and assist younger children with frequent handwashing. Review and reinforce proper hand hygiene routines with all children and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1-3*), when hands should be washed (*page 1-4*), and proper handwashing procedures for staff and children (*page 1-5*).
5. Wear disposable gloves where contact with contaminated material is likely.
6. Use a mask when cleaning up vomit.
7. Consider cohorting staff to only one group of children. Staff should not be switching among groups of children as they can spread the disease among the groups.
8. Increase cleaning and surface disinfection.
  - Switch to a high-level disinfectant such as bleach (1:10 ratio) or accelerated hydrogen peroxide (*page 1-10*).
  - Ensure that all surfaces, equipment, and other objects get cleaned and disinfected more often (*page 1-14*).
  - Clean and disinfect toys immediately after each use and on a daily basis for the duration of the outbreak (*page 1-15*).
  - Pay special attention to bathrooms and common areas.
9. Isolate ill children from well children until a parent/guardian arrives to pick them up.
10. Exclude ill children and staff for at least 48 hours after symptoms have resolved. Your public health inspector or public health nurse can help determine the exclusion period.



# IMMEDIATE MEASURES TO CONTROL AN OUTBREAK

11. Remove all stuffed toys from circulation and stop access to sensory play such as sand and water tables as they easily become contaminated and spread infection.
12. Arrange to obtain specimens from ill children and staff. The public health inspector will supply specimen collection kits. This will assist in the identification of the organism responsible.
13. Handle soiled linens, clothing, and belongings as little as possible. This will prevent unnecessary agitation, which could spread the organism.
14. Discourage or restrict visitors to limit the spread of the organism. If visitors are entering the building, advise them of the precautions to be taken. Notices should be placed at all entrances and exits. Provide an alcohol-based hand sanitizer with at least 70% alcohol content for visitors to use.
15. Do not allow food into your daycare from outside sources. Consult with Public Health Sudbury & Districts about catering, if necessary.
16. Ensure that all parents and staff are kept informed of the progress of the outbreak. Communication is essential for effective outbreak management.
17. Monitor line listings and give updates to Public Health Sudbury & Districts on a daily basis.
18. An outbreak cannot be declared over without prior consultation and agreement by the Medical Officer of Health or designate.

# IMMEDIATE MEASURES TO CONTROL AN OUTBREAK

## RECOMMENDATIONS FOR SCHOOLS

1. Utilize the surveillance tool provided by Public Health Sudbury & Districts so that Public Health staff can monitor your absentee rates on an ongoing basis. If you notice a great increase in the number of students or staff reporting the same type of symptoms within a short period of time and you are concerned about this increase contact Public Health Sudbury & Districts for further advice.
2. Create a line listing (*Resource Section*) and be sure to include the following information for immediate viewing by Public Health staff:
  - the number of ill persons
  - symptoms experienced
  - duration of illness
  - age group (class) of the student
  - when the symptoms first began
3. Increase staff surveillance within the school to identify new cases.
4. Increase handwashing of staff and students, and assist younger students with frequent handwashing. Review and reinforce proper hand hygiene routines with all students and staff. This includes principles of handwashing and proper use of hand sanitizers (*page 1–3*), when hands should be washed (*page 1–4*), and proper handwashing procedures for staff and children (*page 1–5*).
5. Wear disposable gloves where contact with contaminated material is likely.
6. Use a mask when cleaning up vomit.
7. Consider cohorting staff to only one group of students. Switching among groups of students can spread the disease among the groups.
8. Increase cleaning and surface disinfection.
  - Switch to a high-level disinfectant such as bleach (1:10 ratio) or accelerated hydrogen peroxide (*page 1–10*).
  - Ensure that all surfaces, equipment, and other objects get cleaned and disinfected more often (*page 1–14*).
  - Clean and sanitize education aids and toys immediately after each use and on a daily basis for the duration of the outbreak (*page 1–15*).
  - Pay special attention to bathrooms and common areas.

# IMMEDIATE MEASURES TO CONTROL AN OUTBREAK

9. Isolate ill students from well students until a parent/guardian arrives to pick them up.
10. It is recommended to exclude ill students, and staff should stay home for at least 48 hours after symptoms have resolved. Your public health inspector or public health nurse can help determine the exclusion period.
11. Arrange to obtain specimens from ill students and staff. The public health inspector will supply specimen collection kits. This will assist in the identification of the organism responsible.
12. Handle soiled linens, clothing, and belongings as little as possible. This will prevent unnecessary agitation, which could spread the organism.
13. Discourage or restrict visitors to limit the spread of the organism. If visitors are entering the building, advise them of the precautions to be taken. Notices should be placed at all entrances and exits. Provide an alcohol-based hand sanitizer with at least 70% alcohol content for visitors to use.
14. Do not allow food into the school from outside sources. Consult with Public Health Sudbury & Districts about catering, if necessary.
15. Ensure that all parents and staff are kept informed of the progress of the outbreak. Communication is essential for effective outbreak management.
16. Monitor line listings and give updates to Public Health Sudbury & Districts on a daily basis.
17. An outbreak cannot be declared over without prior consultation and agreement by the Medical Officer of Health or designate.

# IMMEDIATE MEASURES TO CONTROL AN OUTBREAK

## TIPS FOR SUCCESS

- Have a written plan to control an outbreak.
- Have a written exclusion policy.
- Initiate control measures before calling Public Health Sudbury & Districts.  
Do not wait until after.
- Know how to suspect and recognize an outbreak.
- Know how to contact Public Health Sudbury & Districts.



# Part 5:

## Infestations in Schools or Daycares





# BED BUGS

Bed bugs are small, wingless insects that feed on the blood of people and animals while they sleep.

Bed bugs are small, brownish insects, that have an oval, broad, flat body with a short, broad head, and are about the size of an apple seed—4 to 5 mm long. They can crawl very quickly on floors, walls, and ceilings. However, cannot easily climb metal or polished surfaces.

They live and hide in dark places such as the folds of mattresses, in bed frames, behind baseboards, and peeling wallpaper.

Bed bugs lay tiny, whitish eggs that have a sticky coating. The eggs measure about 1 mm in length, and are almost impossible to see on most surfaces. The female lays at least 200 eggs in her lifetime, at a rate of about two to four per day and deposits them in cracks and crevices, behind woodwork, and other hidden locations. They usually hatch in 6 to 17 days.

Bed bugs are nocturnal insects that come out at night to feed, attracted by the carbon dioxide exhaled by humans and pets. Bed bug bites may not be noticed right away because bites can take as long as 14 days to appear, depending on the person.

While bites can happen anywhere on the skin, they are often found on the face, neck, arms, legs, and chest. Some people get itchy welts on their skin when bitten. Others may develop an allergy to the bites and in some cases a secondary skin infection.

- People who are bitten by bed bugs should resist the urge to scratch. If children scratch the bite too much, the bite may become infected.
- Wash the bite areas well with soap and water to reduce the risk of infection.
- A cool ice pack can be applied to the area to relieve the swelling.
- Follow up with a health care provider if a bed bug bite becomes infected or if an allergic reaction occurs.

Signs of bed bugs include blood spots or bedbug feces on sheets and pillowcases, as well as dead bugs in areas where the Bed bugs live.



## Keep in mind . . .

Bed bugs do not infect people and do not spread human disease. For more information, see [www.phsd.ca](http://www.phsd.ca).



# BED BUGS

## **How do bed bugs spread?**

Bed bugs are wingless and cannot fly or jump, but can enter small spaces because of their flattened bodies. They can spread very quickly and usually travel from place to place by hitching rides on objects such as purses, clothing, furniture, and luggage.

## **Can bed bugs be treated?**

Bedbugs are difficult to control and require treatment by a licenced pest control technician. Repeat treatments may be required.

## **Can bed bugs be prevented?**

Public Health Sudbury & Districts recommends that children not bring stuffed animals and blankets back and forth from home, but leave the items at the school or daycare instead.

Parents, schools, and daycares should be cautious when accepting in second-hand furniture, mattresses, beds, or toys. Carefully inspect the items for bed bugs.



### **OK to go!**

Children who have been bitten by bed bugs may go to school or daycare.



# COCKROACHES

Cockroaches and their waste can make asthma worse in sensitive people, aggravate allergies, and make people sick because they carry germs that cause food-borne illness. Cockroaches also cause damage by eating and contaminating food storage and contaminating eating utensils and surfaces.

In Ontario, there are a number of types of cockroaches. Knowing what type of cockroach is in your facility will help determine what actions should be taken.

## **Indoor Cockroaches**

The two most common species of cockroaches in Ontario are the German cockroach, a small species measuring about 1.5 cm long, and the American cockroach, which is a larger species measuring about 4 cm long. Cockroaches can be tan, brown or almost black in colour.

Cockroaches are associated with home and food establishment infestations. They are most active at night, when the lights are off, but can be seen during the day if there is a large population.

Cockroaches deposit bacteria when they crawl over food and food contact surfaces. Cockroaches can be brought into your facility in boxes, food packaging, appliances and furniture in the form of egg cases or any of their growth stages.

## **Preventing Infestations**

Follow these steps to help prevent infestation:

- Keep outside garbage areas clean.
- Store garbage in spill proof containers with tight fitting lids.
- Block, seal or caulk cracks and crevices around foundations and access points to wall cavities.
- Keep doors closed unless screened and ensure all entrances have weather stripping to prevent access.
- Take time to check deliveries for signs of infestation; if any signs are observed, do not accept the shipment.
- Store food in tightly sealed plastic or glass containers.
- Store all food 15 cm off the floor on shelves or racks for easy cleaning.
- Remove any and all food and water sources.
- Repair water leaks and clean spills immediately.

# COCKROACHES

- Wrap or insulate pipes that have excessive amounts of condensation.
- Fill floor drains and condensation line traps with water to prevent migration of cockroaches from sewers.
- Keep your facility clean. Remember to clean counter surfaces and crevices and wipe up crumbs and spills. Clean under the stove and refrigerator.
- Do not leave items in a sink overnight.



## **Keep in mind . . .**

Cockroaches eat lots of different things. Small amounts of food can feed large numbers of cockroaches. An effective pest control program is essential to any food safety program.

## **Actions to take during an infestation**

Infestations are discovered by finding live cockroaches, egg cases, carcasses or droppings that look like coffee grounds or black pepper. Cockroach control takes time and cooperation of all involved. Spraying alone doesn't work well; multiple tactics are needed to work together. Follow these steps:

- Contact a licensed pest control company to confirm and control the infestation.
- Ensure contaminated food is discarded and contaminated surfaces are cleaned and disinfected.
- Enhance cleaning of food preparation and eating areas.
- Enhance food scraps and garbage removal from the facility.
- Never apply pesticides in the facility. The licensed pest control company should apply treatment that are low-risk for children in your facility.

## **Wood Cockroach**

The Wood cockroach is also known as a wood roach and is similar in appearance to its German cousin.

The wood cockroach lives exclusively outdoors in rotted logs, tree stumps, under dead trees, and firewood; when indoors, they die within a few days of being inside due to insufficient moisture. These cockroaches are only an annoyance once inside; they do not reproduce or make their home indoors nor do they cause harm to the building structure, belongings, or occupants.

# HEAD LICE

Head lice are tiny flat insects that live and breed on the head. They lay eggs called nits, which stick to hair very close to the scalp. Head lice cannot live on household pets and they do not spread disease. Having head lice is not an indication of poor hygiene. Head lice spread easily among children who are together in one place. They are very common among young children, especially in schools and daycares.

Adult lice, which are 2 to 4 mm long, are hard to see. However, the nits are easier to see. Nits are greyish-white and oval-shaped. Nits are firmly attached to the hair close to the scalp. They may look like dandruff, but cannot be flicked off. Finding nits or eggs (which are bigger and easier to see) close to the scalp suggests that there may be a case of head lice.

## **How do head lice spread?**

Head lice spread through direct contact among children or indirectly on items such as hats, combs, hairbrushes, and headphones. They do not fly, hop, or jump, but they can crawl very quickly. Pets cannot catch head lice and transmit them to humans, and humans cannot transmit head lice to pets.

Head lice can live up to three days off the scalp. Although the eggs can also survive for up to three days, they need a warm environment to develop. Lice are not likely to hatch at room temperature.

## **What are the symptoms of head lice?**

One of the first signs of head lice is itching and scratching the head, but it is possible to have head lice without any symptoms. To diagnose a case of head lice, you need to find live lice or nits. Lice move fast and are about the size of a sesame seed so they can be hard to find.

Unless the infestation is extensive, it's more common to see nits in a child's hair than it is to see live lice crawling on the scalp.

If you think that a child may have head lice, check the hair for nits immediately:

- close to the scalp
- behind the ears
- the back of the neck
- top or crown of the head

When checking for head lice, good lighting is important. Look for nits by parting hair in small sections, going from one side of the head to the other.

# HEAD LICE

## Can head lice be treated?

A health care provider or pharmacist can provide advice on treatment. There are a number of very effective treatments for head lice. All the treatments contain an insecticide that kills the lice. In Canada, Pyrethrin (found in R+C® shampoo/conditioner), Permethrin (Nix® or Kwellada-P®), and Lindane (Hexit® or PMS-Lindane shampoo) are approved for use in treating head lice. Pyrethrin and permethrin are quite safe for humans. Lindane, however, can be toxic. Products with lindane should not be used on infants or young children. You do not need a prescription for these products. Follow package directions carefully.

A non-insecticidal product called isopropyl myristate/cyclomethicone (Resultz®) has been approved in Canada. It should be used on children four years of age and older. The product dehydrates the lice and they die.

Avoid treating anyone with a head lice product unless you find lice in their hair. Parents should check family members (adults and children) if someone in the house has head lice. Sometimes the treatments will make the scalp itchy. If the child is scratching after treatment, it does not necessarily mean that the lice are back. You need to find live lice to make this diagnosis.

Some people use home remedies like mayonnaise, petroleum jelly, olive oil, or margarine. Although these products may make it hard for lice to breathe, they probably will not kill them. There is no evidence that products like tea tree oil or aromatherapy are effective in treating head lice.

## In an effort to get rid of the lice, there are some things that parents **should not** do:

- Don't use a hair dryer on your child's hair after applying any of the currently available scalp treatments because some contain flammable ingredients.
- Don't use a cream rinse or shampoo/conditioner combination before applying lice medication.
- Don't wash your child's hair for one to two days after using a medicated treatment.
- Don't use sprays or hire a pest control company to try to get rid of the lice, as they can be harmful.
- Don't use the same medication more than three times on someone. If it doesn't seem to be working, a health care provider or pharmacist may recommend another medication.
- Don't use more than one head lice treatment at a time.
- Don't use products intended for treating lice in animals. They are not recommended for human use.
- **Never use gasoline or kerosene. These products can be extremely dangerous.**

# HEAD LICE

After treatment, the health care provider or pharmacist may suggest combing out the nits with a fine-tooth comb and repeating treatment in 7 to 10 days to kill any newly hatched nits. To remove lice and nits by hand, use a fine-tooth comb on your child's wet, conditioned hair every three to four days for two weeks after the last live louse was seen. Wetting the hair beforehand is recommended because it temporarily immobilizes the lice and the conditioner makes it easier to get a comb through the hair.

## Can head lice be prevented?

Towels that were used during the treatment should be washed in hot water and detergent. Soak all combs and brushes for one hour in the product used to treat the hair or boil them in water for 10 minutes.

Gather all towels, pillowcases, head gear, hair accessories, scarves, and clothing that were used within the previous three days by the person with head lice and wash them in hot water. Items that cannot be washed should be dried for at least 20 minutes in a clothes dryer on the hot cycle.

Since head lice do not live long off the scalp, and the eggs are not likely to hatch at room temperature, you do not need to do excessive cleaning. To get rid of lice or nits from specific items like, stuffed animals or cushions, follow either of these methods:

- If washable, wash the items in hot water and dry in a hot dryer for 15 minutes, or
- Store the items in an airtight plastic bag for two weeks.



### Keep in mind . . .

Parents or guardians of children with head lice should inform the school or daycare that their child has head lice. Schools and daycares should let families know when there is a case of head lice and provide information about diagnosis and treatment.

If you have any questions or require further information about head lice, please call Telehealth Ontario at: 1.866.797.0000.



### OK to go!

Children with head lice should be treated and can attend school or daycare as usual. "No-nit" policies, which keep children with head lice away from school or daycare, are not effective.

# MICE

Building environments with food waste provide excellent habitats for mice to survive and thrive. Mice are active at night and generally avoid contact with people. Infestations can cause disease and costly damage to food supply.

Mice carry pathogens including Salmonella and Hantavirus which are easily spread in their urine and feces. In a year, a pair of mice can eat over 4 kilograms of food and leave about 36 000 droppings and contaminate about 10 times more food than they eat. Mice are also heavily infested with pests like lice, fleas, and mites, which can spread into your facility.

Monitoring for mice is important to take action and reduce the risks from infestations. Look for:

- burrows – fresh digging around foundations
- gnaw marks – damage to food, food packaging, and property
- droppings – black, rice size droppings
- smudge marks – greasy film left by fur along walls
- mice sightings – dead or live

Improving sanitation, removing food and water, and eliminating nesting sites will prevent rodents from entering your facility. Follow these prevention steps:

- Keep outside garbage areas clean.
- Store garbage in rodent-proof containers with tight fitting lids.
- Keep doors closed unless screened and ensure all entrances have weather stripping to prevent access.
- Check the perimeter for potential entry points and seal openings with coarse steel wool.
- Take time to check deliveries for signs of infestation; if any signs are observed do not accept the shipment.
- Store food in tightly sealed plastic or glass containers.
- Store all food 15 cm off the floor on shelves or racks for easy cleaning.
- Remove any and all available food and water sources.
- Keep your facility clean.

If evidence of mice is found, place additional traps in the facility and increase monitoring to determine if you have an infestation and where mice are travelling.

# MICE

If you have an infestation, hire a professional to set out traps and or bait and follow these precautions:

- Place traps along walls in areas where mice are active. Place the trigger side against the wall.
- Keep children and pets away from traps.
- Use gloves when disposing of dead mice.
- Ensure children do not have access to the bait stations.
- Lock and secure unused traps and bait stations to prevent access by children or mice.
- Ensure contaminated food is discarded and contaminated surfaces are cleaned and disinfected.



## Keep in mind . . .

Traps can be a better strategy than using poisoning bait, as they are non-toxic, prevent exposure of children to potentially harmful bait, and the mice stay at the trap as opposed to moving somewhere else in the facility before dying

## Cleaning Up

It is important that you do not stir up dust by sweeping or vacuuming up dry droppings, urine, or nesting materials. First, clean up any urine and droppings wet and then clean and disinfect the whole area.

- Wear rubber, latex, or vinyl gloves and a dust mask during cleanup.
- Ensure area is well ventilated
- Dampen droppings and debris with a disinfecting solution of bleach and water. Use 1:10 bleach solution by mixing 250 ml (1 cup) household bleach with 2250 ml (9 cups) water. When using a commercial disinfectant, follow the manufacturer's instructions on the label for dilution and disinfection time.
- Use a paper towel to pick up the urine and droppings, and dispose of the waste in the garbage.
- After the rodent droppings and urine have been removed, disinfect items that might have been contaminated by rodents or their urine and droppings.
- Mop floors and clean countertops with disinfectant or bleach solution.
- Steam clean or shampoo upholstered furniture and carpets with evidence of rodent exposure.
- Wash any bedding and clothing with laundry detergent in hot water if exposed to rodent urine or droppings.
- Lastly, remove gloves, and thoroughly wash hands with soap and water.

# SCABIES

Scabies is a common skin infestation caused by tiny insects called mites (*Sarcoptes scabiei*). Scabies is not an infection, but it may cause itchiness or pain. If children scratch the rash too much, it may become infected. Scabies is common in children; however, it can spread rapidly under crowded conditions where frequent skin-to-skin contact occurs between people, such as in daycares, nursing homes, and shelters. Also, people with weakened immune systems or older adults are at risk of a more severe infestation called Norwegian or “crusting scabies”.

## What are the symptoms of scabies?

The mites that cause scabies burrow into the skin and cause a very itchy rash. The rash looks like curvy white threads, tiny red bumps, or scratches. These can appear anywhere on the body. It usually appears between the fingers or in the skin folds on the wrist, elbow, or knee. In infants, it can appear on the head, face, neck, and body.

## How is scabies diagnosed?

If you suspect a child at school or daycare has scabies, contact the parent/guardian to come and pick-up the child. Advise them to have the child assessed by a health care provider.

Scabies can be diagnosed by examining the rash. To confirm the diagnosis, a skin scraping can be taken to detect mites, eggs, or mite fecal matter.

## How does scabies spread?

Scabies is spread from person to person by direct skin-to-skin contact with someone already infested with scabies. Contact generally must be prolonged. A quick handshake or hug will usually not spread the infestation. Scabies can also be spread by sharing clothing, towels, face cloths, bedding, and other personal items with someone with scabies.



The rash will begin four to six weeks after being infested or sooner if the person has had it before. Mites can live on clothing or other objects for up to four days.

## Can scabies be treated?

A health care provider or a pharmacist will recommend which treatment to use. Scabies can be treated by several creams or lotions that are available over-the-counter at the pharmacy or prescribed by a health care provider. The directions on the package label or insert should be followed carefully. Often the treatment needs to be repeated in one week. The health care provider may advise the parents or guardians of the child with scabies that every family member in the household be



# SCABIES

treated with medication.

A child may still be itchy for a few weeks after successful treatment of scabies. If the treatment is effective there should be no new rashes or burrows after 24 to 48 hours. The rash should start to improve in a few days.

## Can scabies be prevented?

- A general cleanup and vacuuming is sufficient to clean the school or daycare.
- Wash the child's personal items (bed linen, stuffed animals, face cloths, towels, and clothing) in a regular hot water wash cycle and in a clothes dryer at the hottest cycle.
- Items that cannot be washed can be dry cleaned or sealed in a plastic bag for seven days or put in a hot dryer for 20 minutes to kill the mites.
- Encourage children to not share personal items such as towels, linen, or clothing.



### Keep in mind . . .

Parents or guardians of children with scabies should inform the school or daycare that their child is infected with scabies.

Schools and daycares should let families know when there is a case of scabies and provide information about the infestation. Parents or guardians should watch their child closely for signs of scabies if another child at school or daycare has it.

## What is the role of Public Health?

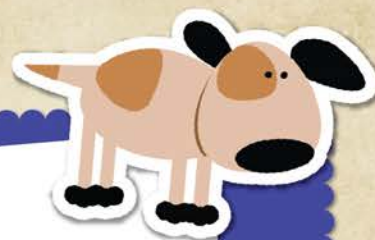
Scabies is not a mandatory reportable disease. However, Public Health Sudbury & Districts may provide information and advice by calling 705.522.9200, or 1.866.522.9200 toll-free.



### No school or daycare!

Children with scabies should NOT go to school or daycare until 24 hours after treatment has been completed.





# Part 6: Food Safety Guidelines





# SERVING FOOD SAFELY

Serving healthy foods is complemented by serving food safely to prevent food-borne illness. In addition to planning nutritionally balanced, meals that children will like, the meals served must be safe for the children to consume.

Serving safe food to all age groups is of major importance. The young are particularly susceptible to food-borne illness. Along with your desire to serve food safely, there is also a legislated requirement to serve food safely. The **Ontario Food Premises Regulation** under the **Health Protection and Promotion Act** is a key piece of legislation that will govern and dictate how you prepare and handle food in a school or daycare.

Your local public health inspector plays an important role in administering these acts and regulations. The information included in this section represents general principles of proper food handling.

Public Health Sudbury & Districts offers food handling safety courses. You are encouraged to attend to learn about the risks associated with handling food and become a certified food handler. For more information, call Public Health Sudbury & Districts at 705.522.9200, or visit [www.phsd.ca](http://www.phsd.ca).

Your public health inspector will keep you informed of any information pertinent to food handling. If you have any questions concerning food handling, preparation, or storage, contact your public health inspector at Public Health Sudbury & Districts.



## Keep in mind . . .

Proper handwashing by all staff and children cannot be emphasized enough as a means of controlling the spread of bacteria. Hands should be washed before, during, and after food preparation to help prevent contamination of foods. Washing hands before and after meal or snack times should be an automatic part of the children's daily routine (*page 1-5*).

# TRANSPORTING AND RECEIVING PREPARED FOODS

If meals and snacks are transported from a central location to one or more locations on a daily basis, or if food is received from a central location, food safety and sanitation controls and practices should be carefully monitored.

Prepared meals and snacks can become seriously contaminated, or germs can be permitted to increase to dangerous levels, due to unsanitary or careless food transportation.

To protect children's health, it is necessary that foods be carefully packaged to prevent contamination and that proper temperature control be maintained during transportation.

**All foods should be transported according to the following guidelines:**

- Food must be packaged in durable food-grade containers with proper covers to ensure that contamination is prevented during the transportation.
- Hot hazardous foods must be transported in covered containers at 60°C (140°F) or hotter.
- Cold hazardous foods must be transported in covered containers at 4°C (40°F) or colder.
- Frozen foods must be transported in covered containers and maintained in a frozen state at -18°C (0°F) or colder.
- Use an accurate laser thermometer or metal-stemmed, probe-type indicating thermometer to verify food temperatures when receiving hot or cold hazardous foods. Always thoroughly clean and sanitize the probe thermometer in between uses.

# SAFE FOOD STORAGE

Safe food storage ensures that safe food stays safe and is protected from contamination. It is also important to keep raw foods separate from ready-to-eat foods to prevent cross-contamination.

**The following food storage procedures should be followed:**

- “Keep refrigerated” means that the product must be refrigerated at all times, not only after opening the container.
- Make sure that your refrigerator is set at a temperature of 4°C (40°F) or lower by inserting an accurate indicating thermometer in the unit and checking it regularly.
- Refrigerate or freeze leftover cooked foods immediately.
- Store perishable foods at the proper refrigeration temperature, at or below 4°C (40°F) or in the freezer at or below -18°C (0°F).
- Ensure that raw foods do not contaminate ready-to-eat foods, either directly or indirectly. Do not let meat, poultry, or fish juices drip on other foods on a lower shelf in the refrigerator. Place raw foods on the bottom shelf.
- Remove any stuffing from leftover poultry, meat, and fish before cooling, and refrigerate stuffing in a separate container. It is better to cook stuffing separately.
- Cool bulk quantities of food quickly by dividing into several small containers before refrigerating. Fast cooling reduces the risk of bacterial growth.
- Use up refrigerated leftovers as soon as possible, preferably within two to three days.
- Frozen foods may be kept frozen for months without causing increased risk of food-borne illness.
- Keep track of the *best before* dates on foods and try to use them up within that period.
- Label and store pesticides and other chemicals away from foods.

# SAFE THAWING OF FROZEN FOODS

Thawing can raise a hazardous food's internal temperature in to the danger zone. The danger zone is the temperature range between 4°C (40°F) and 60°C (140°F) and is the temperature zone where germs grow most rapidly. Foods must be kept under 4°C (40°F) during the thawing process to stop the growth of food pathogens.

**The following procedures should be followed to ensure proper thawing:**

- Thaw meat, poultry, fish, or any other hazardous foods in the refrigerator, under cold running water, or in the microwave. Food must be immediately cooked if thawed using the microwave.
- Keep food in a plastic bag when thawing in the refrigerator or in cold water. Make sure that there are no leaks or tears in the plastic.
- With the exception of microwave thawing, keep food cold while thawing to prevent excessive bacterial growth.
- Food thawed in the refrigerator requires 10 hours per kilogram.
- To prevent cooked foods from being contaminated by raw foods, do not let meat juices drip on other foods. This can be avoided by placing food in a container to catch drips. Place raw meats on the bottom shelf in the refrigerator.
- Thaw food in cold running water for more rapid thawing. Water is a good conductor of heat and promotes faster thawing. Allow approximately two hours per kilogram. The water needs to be changed every 30 minutes.
- Refrigerate foods immediately after thawing if not used promptly.
- Check the manufacturer's instructions for microwave thawing to determine the minutes per kilogram, the power level to use, and the size of product that will fit in the oven.
- Avoid thawing commercially frozen stuffed poultry before cooking. Follow the directions for storage and cooking on package labels.
- Remove neck and giblets from the body cavity prior to thawing poultry.
- Wash hands thoroughly after handling raw poultry, meat, and fish (*page 1-5*).
- Use hot, soapy water to thoroughly clean all surfaces (utensils, cutting board, and sink) that have been in contact with raw meat and poultry and then sanitize them.



# SAFE FOOD PREPARATION

Safe food preparation is one of the most important aspects of food safety. During food preparation, foods can be easily contaminated with germs from the food handlers' hands, from surfaces, from equipment, and from other foods such as raw meat.

**The following procedures are crucial to ensuring food safety during food preparation:**

- Organize preparation times so that all foods to be served at a meal are cooked to their proper final cooking temperature at the same time; this prevents having to hold hazardous foods at room temperature.
- Wash hands thoroughly (*page 1–5*) just before handling food and often during food preparation, especially after handling raw meat, fish, eggs, or the surfaces they may have been on.
- Keep hands, utensils (including can openers), and work areas clean to limit the transfer of bacteria from one food to another.
- If food must be tasted, ladle food into a small bowl and use a spoon for tasting, or use a clean spoon each time a food is tasted.
- Use hot, soapy water to thoroughly clean all surfaces (especially cutting boards) that have been in contact with raw meats, fish, and poultry. Once surfaces have been cleaned, sanitize the surfaces with a chemical solution as listed in the ***Ontario Food Premises Regulation***, following the manufacturer's recommendations in order to effectively destroy harmful germs that can cause illness.
- Keep the food preparation work area free of flies and other insects that might spread bacteria. This can be done by ensuring outside doors aren't left propped open, windows are screened if open, and garbages are regularly emptied so as not to attract insects, rodents, or vermin.
- Avoid handling food when ill. Keep all cuts on hands clean and covered. Cough and sneeze into your upper sleeve or a tissue, not your hand. Dispose of tissues immediately and wash your hands.
- Avoid canned food items that are bulging, leaking, or badly dented cans. Do not use contents of a can that spurts when opened, appears bubbly, or has an abnormal smell.

# SAFE COOKING

Improper cooking creates an opportunity for germs that are present in or on the food to grow and reproduce to numbers that can cause illness. This is because adequate temperatures are not reached during the cooking process which allows germs to survive and potentially grow to large numbers. To ensure that this does not occur, use an accurate probe thermometer to check the internal temperature of the thickest portion of the food item. Here is a list of the types of hazardous foods and the internal temperatures they must reach for 15 seconds to ensure thorough cooking.

Type of Food	Internal Temperature
Whole Poultry	82°C (180°F) for 15 seconds
Poultry Mixtures	74°C (165°F) for 15 seconds
Food Mixtures (such as quiche)	74°C (165°F) for 15 seconds
Pork Products	71°C (160°F) for 15 seconds
Ground Beef	71°C (160°F) for 15 seconds
Fish	70°C (158°F) for 15 seconds

After food is thoroughly cooked it can be re-contaminated by air, food handlers, or equipment. At this point germs can grow to large numbers and cause illness. To prevent this, take the following precautions:

- Avoid food borne illness from hazardous foods by keeping hot foods piping hot, above 60°C (140°F) and cold foods refrigerator cold, below 4°C (40°F). This keeps food out of the danger zone where germs grow best.
- Organize preparation times so that all foods to be served at a meal are cooked to their proper final cooking temperature at the same time; this prevents having to hold foods at room temperature.
- Reheat leftovers to the internal temperature in the above table for a minimum of 15 seconds.
- If you have doubts about any food, throw it out. Unsafe foods do not always taste unpleasant or give off bad odours.



## Keep in mind . . .

If you are concerned about the safety of a particular food product, call Public Health Sudbury & Districts. Public Health Sudbury & Districts encourages all food premises to register to receive email notification of food recalls through the *Canadian Food Inspection Agency*. Visit [www.inspection.gc.ca](http://www.inspection.gc.ca) for more information.

# DISHWASHING

## MANUAL DISHWASHING

When washing dishes by hand, use the three-compartment sink method in accordance with the ***Ontario Food Premises Regulation***.

**Sink #1:** Wash with warm water and dish detergent

**Sink #2:** Rinse with clean, warm water

**Sink #3:** Sanitize with a chemical solution as listed in the ***Ontario Food Premises Regulation***, following manufacturer's recommendations.

- Let the dishes air dry completely before use or storage.
- Verify water temperatures using an accurate thermometer.
- Verify sanitizer solution using test strips.

## MECHANICAL DISHWASHING

- When washing dishes in a mechanical dishwasher, ensure that the equipment is kept clean and in good repair.
- In order to ensure that all dishes are thoroughly washed, do not overfill the dishwasher.
- Ensure that water temperature reaches minimums outlined in the ***Ontario Food Premises Regulation***. Verify this by using a thermometer.
- Dishes can be sanitized with hot water or a chemical solution as listed in the ***Ontario Food Premises Regulation***, following manufacturer's recommendations. If using a chemical solution to sanitize dishes, use test strips to determine the concentration of the sanitizer.

# PICNICS AND FIELD TRIPS

Outdoor picnics and field trips during the spring and summer months are great ways to break the monotony of the classroom and the dining room table. However, special precautions have to be taken when packing safe meals and snacks for yourself and the children in your care.

**The following food safety facts for brown bag lunches help reduce the risk of food poisoning on the road:**

- Store lunches in a cool area until mealtime; if refrigeration is not available, pack lunches in insulated containers or freeze water in leak-proof containers to keep lunches cold, or pack a small frozen can or box of juice in each child's lunch bag to chill the lunch. When thawed, it becomes part of the meal.
- Wash fresh fruit and vegetables before packing them.
- Ensure that foods containing meat, fish, egg, or mayonnaise are kept cold—or better still—avoid these foods.
- Make sure that all children wash their hands thoroughly before eating.
- Moist hand towelettes may be used to clean hands of visible dirt when soap and water are not available, then supplement with alcohol-based hand sanitizer.

# BREASTMILK IN CHILD CARE SETTINGS

## **How long should children breastfeed?**

Health Canada, the Canadian Paediatric Society and Public Health Sudbury & Districts recommend exclusive breastfeeding for the first six months of a child's life, and sustained for up to two years or longer with appropriate complementary feeding.

Child care settings support continued breastfeeding by offering expressed breastmilk in a mother's absence or by having an area for a mother to feed her child in the facility.

## **Why is breastmilk important for young children?**

Breastfed children get sick less often and are less likely to experience:

- ear and chest infections
- diarrhea
- diabetes and obesity
- asthma
- some childhood cancers
- cognitive deficits
- dental problems
- Sudden infant death syndrome (SIDS)

## **Why is breastmilk important for mothers?**

Breastfeeding protects women's health. It is associated with a reduced risk of:

- breast and ovarian cancer
- type 2 diabetes

## **Why is breastmilk important for families, employers and workers?**

Continued breastfeeding after returning to work is associated with:

- Lower incidence of some illnesses and infections that can spread between children in child care settings.
- Fewer parental days off work to care for ill children.
- Decreased health care costs and benefit claims.
- Less financial burden for families — purchasing formula, bottles and equipment can be costly.

# BREASTMILK IN CHILD CARE SETTINGS

## **Are there instructions for handling breastmilk?**

Safe handling, storage and administration of breastmilk are important in order to minimize the risk of contamination and infection to children and staff. As breastmilk is a body fluid, child care staff should:

- Store human milk according to the guidelines on page 6-16.
- Ensure bottles and containers are labelled (date, name of infant/child and name of mother). See page 6-12.
- Double-check the name on the breastmilk bottle with another colleague to ensure the correct child is receiving the correct human milk. Staff members should document this double-check process. See page 6-12 and 6-13.
- Wash hands before and after handling breastmilk. Wear gloves if there is a chance of getting breastmilk on hands. See more about hand washing and wearing gloves in part 1 of this manual.

**IMPORTANT:** If a child consumes human milk that is not intended for him/her, please contact a health care provider immediately.

# SUPPORTIVE BREASTFEEDING PRACTICES

## How can your child care facility be supportive of a breastfeeding mom?

Moms going back to work often face new challenges, some of which may impact her decision to continue to breastfeed. Support plays an important role in this decision. By having a breastfeeding policy for your child care facility, you will be creating valuable support for both breastfeeding moms and staff. Here's a sample breastfeeding policy which your child care facility can adapt.

### *SAMPLE Breastfeeding Policy for child care settings*

This child care facility will provide a respectful environment for breastfeeding families and staff. We recognize that breastfeeding is a normal way to feed a child for proper growth and development. We will:

1. Support women to breastfeed exclusively for the first six months and sustained for up to two years or longer with appropriate complementary feeding.
2. Provide a comfortable space for women to breastfeed their children on site and support them to breastfeed anywhere and anytime. The Ontario Human Rights Commission clearly indicates that all women have the right to breastfeed in any public space and that they cannot be asked to cover-up or move to a more private location.
3. Provide a secure and designated space in the refrigerator for breastmilk.
4. Educate staff and families about the importance of breastfeeding, and provide referrals for further supports as needed.
5. Educate staff and families on the proper storage and handling of breastmilk. Each staff member will follow the breastmilk in childcare settings guide as outlined in the most current copy of the *An Ounce of Prevention Manual*.
6. Ensure staff follow proper hand hygiene at all times.
7. If a child consumes breastmilk not intended for him/her, both the parent(s) of the child who consumed the breastmilk in error and the mother whose breastmilk was fed in error should be notified immediately and instructed to contact their physician.
8. Display breastfeeding promotion materials including posters and brochures.

For more information please contact Public Health Sudbury & Districts at 705.522.9200.

# BREASTMILK PROCEDURE FOR STAFF

## **1. Milk check-in** (See sample on page 6-13).

Staff ensures that:

- identification at the top of the form is completed
- each container is properly labelled (See sample label on page 6-13)
- the number of containers is recorded
- both a staff and parent sign

## **2. Milk use** (See sample on page 6-13).

Staff ensures that:

- A double-check process is performed every time a child is fed breastmilk. This involves two staff members checking that the correct breastmilk is fed to the correct child. Both the parent's and the child's name will be confirmed with each staff member.
- Two staff members sign this milk use portion of the form for each time.
- De-canted milk (milk dispensed into smaller containers at time of use) is returned to the fridge immediately.
- They discard any milk not finished by the child (If child consistently does not finish the milk provided, they should record the amount of wasted milk and notify parent).

## **3. Milk pick-up** (See sample on page 6-13).

Staff ensures that:

- They check the names on the label and then release the containers to the parent, ensuring any unused milk is given to the correct parent.
- They record number of containers of milk returned.
- A staff and parent sign milk pick-up.



# BREASTMILK PROCEDURE FOR STAFF

1

## *SAMPLE Breastmilk Administration Form*

### **Milk check-in**

Date: April 3, 2014

Daily Record for: Bobby (Child's Name)

Parent printed name and signature: Mary Jane, Mary Jane

Time	Staff Signature	Parent Signature	#of containers
8:30	<i>Cherilyn Hadcock</i>	<i>Mary Jane</i>	4

2

### **Milk use**

Time	Staff Signature #1	Staff Signature #2
9:30	<i>Cherilyn Hadcock</i>	<i>Rose Bloom</i>
12:00	<i>Cherilyn Hadcock</i>	<i>Rose Bloom</i>
4:00	<i>Cherilyn Hadcock</i>	<i>Rose Bloom</i>

3

### **Milk pick-up**

Time	Staff Signature	Parent Signature	#of containers
4:45	<i>Cherilyn Hadcock</i>	<i>Mary Jane</i>	1

## ***SAMPLE*** Container Label

Parent name: \_\_\_\_\_

Parent signature: \_\_\_\_\_

Child's name: \_\_\_\_\_

Date milk checked-in: \_\_\_\_\_

# STORING EXPRESSED BREASTMILK

## Information for families

These guidelines are to be used for the healthy babies who were born at term.

### Types of storage containers:

- Glass or non-bisphenol A (BPA) containing hard plastic containers with a tight lid. If you are unsure whether your plastic bottles or containers contain BPA, please contact the manufacturer.
- BPA-free breastmilk freezer bags.
- If you use bottle liner bags — use two bags and double bag as the plastic is thin.

### How to clean the storage container:

- Wash the containers in hot, soapy water and rinse well with hot water.
- Let the containers air dry.
- If breastmilk freezer bags are being used, they are sterilized and ready to use. They are for one-time use only and cannot be re-used.

### When storing breastmilk:

- Write the date and the time expressed on the container.
- Store breastmilk in small portions (2 to 4 oz.) to prevent wasting excess milk.
- Cool freshly expressed milk in the fridge before adding it to already cooled or frozen milk.
- If combining breastmilk for storage, add a smaller amount of cooled milk to frozen milk.
- Leave space at the top of the container when freezing as milk will expand.

# STORING EXPRESSED BREASTMILK

## BREASTMILK STORAGE GUIDELINES

Location	Temperature	Comments
Room temperature	16 to 29°C (60-85°F)	4 hours optimal 6-8 hours acceptable under very clean conditions
Refrigerator	4°C (39.2°F)	4 days optimal 5-8 days acceptable under very clean conditions
Freezer	< -4°C (24.8°F)	6 months optimal 12 months acceptable

References: Centers for Disease Control and Prevention, Proper Handling & Storage of Human Milk, 2010. Breastfeeding Answer Book, 3rd Edition, LLLI, 2003  
Best Start Nexus, Breastfeeding Matters, 2013

# USING EXPRESSED BREASTMILK

## **Thawing breastmilk:**

### **Guidelines to thaw:**

- Leave in the refrigerator for a few hours.
- Hold under warm running water.
- Do not thaw at room temperature.

### **Guidelines to warm:**

- Use a waterless warmer.
- Place in a bowl of lukewarm water (at most 40 degrees)
- Do not heat on the stove or in the microwave as this may create hot spots or damage the nutrients in the milk.

### **Before using:**

- Swirl container to re-mix the fat into the breastmilk.
- Test the temperature before using it. It should feel slightly warm but not hot.
- Use warmed breastmilk within 1-2 hours and throw out any leftover.
- Thawed breastmilk may taste or smell different than fresh, but it is still good.

# BREASTFEEDING SUPPORT IN SUDBURY

**Public Health Sudbury & Districts offers many free breastfeeding services:**

## **Breastfeeding Clinic**

- One-on-one support from a breastfeeding consultant
- Prenatal and postnatal appointments available Monday to Friday, from 8:30 a.m. to 4:30 p.m.

## **Breastfeeding Support Group**

- Meet other breastfeeding moms

## **A Breastfeeding Companion (ABC)**

- Breastfeeding volunteers offer telephone support to share their tips, techniques, and experiences

For breastfeeding questions or to sign up for a service, call 705.522.9200, ext. 342.

For 24 hour support, call Telehealth at 1.866.797.0000.

For other free services available in your community visit: [ontariobreastfeeds.ca](http://ontariobreastfeeds.ca).

## **References:**

Centers for Disease Control and Prevention, Proper Handling & Storage of Human Milk, 2010.  
Breastfeeding Answer Book, 3rd Edition, LLLI, 2003

Best Start Nexus, Breastfeeding Matters, 2013

Breastmilk in Childcare Settings has been adapted with the permission of York Region Community Health Services

Ontario Prenatal Key Messages (2018) <http://www.ontarioprenataleducation.ca/breast-feeding/>





# Part 7:

## Injury and Hazard Prevention







# AIR QUALITY

Children are more susceptible to the effects of poor air quality because they breathe in more oxygen relative to their body weight than adults. Also, since children are growing and developing, the potential for damage to their respiratory systems is greater.

Some short-term health problems that may result from air pollutants are headache, nausea, dizziness, infection and irritation of the eyes, nose and respiratory tract. Possible chronic and long-term effects include asthma, allergies, lung disease, and cancer.

## Outdoor Air Quality

The following are steps you can take to reduce the risks of poor outdoor air quality:

- Receive Air Quality Alert Notifications (Special Air Quality Statement or Smog and Air Health Advisory) by visiting the Ministry of Environment and Climate Change Air Quality website at <http://www.airqualityontario.com>
- Develop a procedure for communicating environmental issues such as smog alerts to staff, parents, and children.
- Avoid strenuous activity and consider rescheduling outdoor activities during smog alert days. Hot weather combined with poor air quality can increase the risk of adverse health effects. Pay close attention to asthmatic children during smog and heat alerts, ensure they get adequate rest breaks and keep medication close by in case a child has breathing difficulties.

## Indoor Air Quality

There are a number of common sources that can produce poor indoor air quality. These include combustion sources such as oil, gas, wood, and tobacco products; building materials and furnishings as varied as wet or damp carpet, and cabinetry or furniture made of certain pressed wood products; products for household cleaning and maintenance, personal care, or hobbies; central heating and cooling systems and humidification devices and radon.



### Keep in mind . . .

The most effective way to reduce indoor air pollution is to remove or reduce the source of contamination.

**The following are steps you can take to reduce the risks of poor indoor air quality:**

- Control moisture in the environment. Moisture, vapor, standing water and water-damaged materials are a breeding ground for mold, mildew, insects and bacteria. Prompt attention to moisture problems is essential to reduce the risk of adding contaminants particularly mould into the air.

# AIR QUALITY

- Painting, renovations and repair. Schedule these activities for times when children are not present. Test all older painted surfaces for lead before sanding.
- No smoking. Adults who live in the home of a family child care program as well as parents, relatives and staff should be aware of this policy.
- Pest management. Use Integrated Pest Management techniques to monitor and prevent pests.
- Ventilation. Arrange your space to provide adequate ventilation to high-need areas such as arts and crafts areas and diaper changing areas. Install window guards for safety. Regularly inspect and maintain Heating, Ventilation and Air Conditioning systems.
- School supplies and purchasing choices. Purchase least toxic supplies. Install new products such as carpeting and furniture when children are not present, and provide ventilation for 48 to 72 hours after installation. Choose low emission products.
- Sanitizing and cleaning products. Decide what products you will use for cleaning and sanitizing. Keep products in their original containers. Keep all chemicals out of the reach of children.
- Pets. Determine if you will allow pets in your program. Confine pets to a limited area that is easily cleaned and disinfected.

## **Are air purifiers helpful?**

Many products are sold as air purifiers. Ozone generators purposely introduce ozone into the air. Ion generators may introduce ozone into the air as a by-product. Ozone can be harmful to children, so Health Canada does not recommend the use of air cleaners that intentionally generate ozone. Effective control at the source of pollution remains the most important step in maintaining air quality.

# CHILDPROOFING THE INDOORS

## THE BASICS

Simple and effective childproofing steps help avoid potential accidents. Here are some general ways to childproof your establishment:

- Keep doorways and exits free of equipment, toys, and other objects.
- Make sure that bathroom and closet door locks can be opened from inside.
- Cover electrical outlets that are not in use.
- Lock up cleaning supplies and hazardous materials, especially medications.
- Put safety locks on drawers that contain knives, etc.
- Cover radiators; use only protected heaters.
- Ensure shelves cannot be knocked down or items on shelves cannot be pulled down

## TOY DANGERS

Certain toys can be hazardous to young children. To avoid the dangers of hazardous toys, please take the following precautions:

- Ensure that toys and art materials are non-toxic and age-appropriate.
- Discard toys that are broken or have detachable pieces that are small enough to stick in the eyes, nose, or ears, or that may be considered a choking hazard.
- Avoid brittle plastic toys that may be dangerous when broken.
- Choose toys that have rounded or smooth edges.
- Ensure metal toys are not lead based.
- Avoid toys that shoot items.



### Keep in mind . . .

Health Canada has developed a booklet series titled *Is Your Child Safe?* for parents and caregivers. It is available on their website

<http://www.hc-sc.gc.ca/cps-spc/pubs/cons/child-enfant/index-eng.php>

# INSECT REPELLENTS

## REPELLENTS CONTAINING DEET

- On children under 6 months of age, insect repellents containing DEET should not be used.
- On children aged 6 months to 2 years, use insect repellent containing up to 10% DEET. Do not apply the product more than once a day.
- In children between 2 and 12 years of age. Use insect repellent containing up to 10% DEET. The product can be applied up to 3 times per day.

***Health Canada recommends the following if you are considering using an insect repellent containing DEET on the children:***

- Use only insect repellents that are approved in Canada for human use. Look for the ***Pest Control Product*** (PCP) registration number on the product label.
- Use according to the manufacturer's directions on the label.
- Check for sensitivity before use by applying the product to a small area of skin on the arm, then wait 24 hours to see if a reaction occurs. If a reaction occurs, stop using the product immediately, wash the area with soap and water, and seek medical assistance.
- Avoid breathing mist of the spray. Always apply in a well-ventilated area.
- Store DEET out of reach of children.
- Use caution when using repellents containing DEET on children, it can cause toxic effects.
- Do not apply DEET directly to a child's skin. Apply to your own hands and then put it on the child.
- Depending on the concentration of DEET in a product, it can be effective for approximately 3 to 6 hours. Avoid prolonged or excessive use of DEET. Use sparingly to cover exposed skin and clothing. Do not apply to skin covered by clothing.
- Do not apply repellents to hands or face of young children.
- Do not let children apply repellents themselves.
- As with chemical exposure in general, pregnant women should take care to avoid exposures to repellents when possible.
- Wash all treated skin and clothing with soap and water after returning indoors.
- Never use repellents over cuts, wounds, or irritated skin.
- Do not use repellents near food.

# INSECT REPELLENTS

## ALTERNATIVES TO DEET

As an alternative to products containing DEET, registered repellents containing P-menthane-3,8-diol as the active ingredient can be used by people over three years of age. Follow the product directions and follow safety tips listed on the previous page.

Registered products containing soybean oil may also be used to prevent bites (except by individuals with allergies to soy).

**Note:** Vitamin B, skin moisturizer or sunscreen combined with insect repellent, ultrasonic devices, incense, and lavender have not been shown to be effective in preventing mosquito bites and as a result are not approved by *Health Canada* as repellents.



### Keep in mind . . .

Where appropriate, consider using non-chemical ways to deter biting insects, such as protective clothing, window and door screens, and wearable netting.

# FINDING USED NEEDLES OR CONDOMS

If children are playing outside, it is possible that a used condom or needle may be found. Teach children never to touch condoms or needles that they find and teach them to report the situation to an adult immediately. If you handle a used needle or condom properly, you can reduce the health risk or chance of injury.

## SAFE DISPOSAL OF USED NEEDLES

- Do not touch used needles with your bare hands. Wear disposable gloves and use tongs to pick up the needle.
- Put the needle in a container that cannot be punctured by the needle. A large plastic pop bottle with a screw-on lid will do. (The best container is a “sharps container”, which is made for used needles. A sharps container is hard-sided and there is less risk of the needle poking through the container.)
- Take the container to the needle; don’t carry the needle to the container.
- Do not hold the container when you put the needle into it.
- Remove the disposable gloves (*page 1–6*) and throw them in a garbage can lined with a plastic bag.
- Close the container with a lid.
- Wash your hands with soap and water (*page 1–5*).

School board staff should contact their Health and Safety Department for more information on how to obtain and handle sharps containers. Child care providers can obtain hard-sided sharps containers at most pharmacies. Search <http://www.healthsteward.ca/returns/ontario> for a list of participating pharmacies in your area.

## PICK-UP OF DISCARDED NEEDLES

- City of Greater Sudbury *Toxic Taxi*:  
Call 3-1-1 for residential sharps container pick up
- Intravenous Drug Use Outreach Program (Sudbury):  
Call The Point at 705.673.4396.

## SAFE DISPOSAL OF USED CONDOMS

- Wear disposable gloves and use tongs to pick up the condom.
- Put used condom in a plastic bag.
- Put the bag into a garbage can that children cannot get at. Do not put it into a recycling bin.
- Remove and dispose of disposable gloves (*page 1–6*) in a lined garbage can.
- Wash your hands with soap and water (*page 1–5*).

# NEEDLE STICK INJURIES

## **PROTOCOL FOR NEEDLE STICK INJURY TO A CHILD**

- Do not panic. The risk of serious infection is low.
- Allow the pricked area or wound to bleed freely; do not squeeze it.
- Wash the area with soap and water immediately.
- Do not use bleach or alcohol as they will irritate the wound.
- Contact the parents.
- Take the child to the nearest hospital emergency department as soon as possible.

## **PROTOCOL FOR NEEDLE STICK INJURY TO STAFF**

- Do not panic. The risk of serious infection is low.
- Allow the pricked area or wound to bleed freely; do not squeeze it.
- Wash the area with soap and water immediately.
- Do not use bleach or alcohol as they will irritate the wound.
- Report to your supervisor/principal or replacement immediately. If you cannot do this, leave a message for your supervisor/principal or replacement.
- Go to the nearest hospital emergency department as soon as possible.
- For follow-up counselling, see your health care provider or occupational health services department.

**Refer to page 5 for hospital listings.**

# OUTDOOR PLAY AREAS

A safe and stimulating place to play, run, imagine, and enjoy the outdoors is a great atmosphere for children to be in. Because of this, outdoor play areas are very prevalent in schools and daycares. Even with all the great things outdoor play areas have to offer, there are still a lot of safety concerns and dangers that playgrounds can present for children.

- All outdoor sandboxes must be covered when they are not being used. The lid must be fitted to exclude animals but to allow air circulation.
- Outdoor play areas must be inspected by staff before allowing children access to the area. Sand should be inspected daily by staff for feces, glass, rocks, or other contaminants.
- Sand in sandboxes and loose materials in the play areas should be free of organic material and animal feces. The contaminated material must be placed in a garbage bag for disposal in an approved landfill site.
- Playground equipment should be free of protruding nails, screws, or sharp edges, and must meet CSA standards.
- Supports for playground equipment should be secured to the ground and concrete should be buried under a suitable surface.

Moreover, the *Ministry of Community and Social Services* requires certain standards for outdoor play areas. As a result, all playgrounds and outdoor play areas must be certified for use according to the ***Child Care and Early Years Act***. The *Ministry of Community and Social Services* ensures that this occurs.

## What is a suitable outdoor play area?

- It is in an area that is easy for staff to supervise children.
- It is away from high traffic areas.
- It has good drainage for rainwater.
- It is free of debris, structures in disrepair, and broken or worn equipment.
- It is enclosed by a fence that is at least 1.2 meters (four feet) high that has a gate that cannot be opened by a young child.
- It has a protective surface such as uncompacted pea-gravel, rubber, sand/pea-gravel mix, or mulching where play equipment, such as a jungle gym, is located.



### Keep in mind . . .

The protective surface must be well-maintained according to installer recommendations, and replenished as necessary to ensure the safety of the children.



# PLANT SAFETY

## PLANTS TO AVOID

Keep all plants, berries, seeds, and bulbs out of reach of young children. Of course this is not always possible, especially outdoors, so teach children to stay away from plants and not to eat any non-food items!

Do not keep toxic house or garden plants. Some common house and garden plants that are poisonous include:

- arnica
- begonia
- castor bean
- daffodil
- dieffenbachia
- elephant's ear
- hyacinth
- iris
- lillies (all types)
- mistletoe
- narcissus
- oleander
- philodendron
- poinsettia
- rhubarb (leaves)
- rosary pea (bean)



### Keep in mind . . .

There are several other poisonous plants that could harm a child if ingested. For a more specific list, refer to the following website:

[http://www.ontariopoisoncentre.ca/pdf/50742-OPC\\_PlantSafetyENG.pdf](http://www.ontariopoisoncentre.ca/pdf/50742-OPC_PlantSafetyENG.pdf)

# PLANT SAFETY

## EATING OR TOUCHING A TOXIC PLANT

If a child eats or touches a plant, berry, seed, bulb, or wild mushroom that you think may be poisonous, call the Ontario Poison Centre immediately at 1.800.268.9017 or 1.416.813.5900 and follow their directions.

### ***Be prepared to give the following information:***

- Any symptoms of illness the child displays.
- Name of plant (if you know it). The specialists at the centre are experts in poison information, they are not plant specialists. They cannot identify plants over the phone.
- How much and what parts were eaten?
- How recently it was eaten or touched?
- Age of the child.
- The Poison Specialist will tell you what to do and what symptoms to watch for. Children can react differently to the same plant.

If a child puts a plant in his or her mouth, do not taste the plant yourself to check if it is poisonous. If the child is choking, unconscious, or having trouble breathing or swallowing, you should call 9-1-1 immediately.

If the child appears well, you should:

- Look for pieces of the plant in the mouth. Remove any pieces that you can see.
- Give small sips of water.
- Do not try to make the child throw up.
- Call the Ontario Poison Centre and follow their directions.
- Contact the parents.
- If advised by the Ontario Poison Centre, take the child to the nearest hospital emergency department as soon as possible.

Some plants may cause skin irritation, itching, a rash or blisters.

- Wash the skin immediately with lots of soap and lukewarm water.
- Call the Ontario Poison Centre and follow their directions.
- If advised by the Ontario Poison Centre, take the child to the nearest hospital emergency department as soon as possible.

# PLANT SAFETY

## **MUSHROOM SAFETY**

Poisonous and non-poisonous mushrooms grow side by side. Only a mushroom expert, called a mycologist, can tell the difference. It is dangerous to eat any mushroom found outdoors.

- Cooking outdoor mushrooms does NOT make them safe to eat.
- Eating even small parts of some mushrooms can cause sickness and death.
- After eating a poisonous mushroom, a person may not become ill for many hours.
- Do not wait until the person feels sick to call the Ontario Poison Centre.

### **Helpful hints to prevent mushroom poisoning:**

- Remove and throw away all mushrooms growing near the school or daycare.
- Check the lawn for mushrooms before children go outdoors to play, especially after a rainfall.

# SPLASH OF BLOOD OR BODY FLUID

## **PROTOCOL FOR A CHILD GETTING SPLASHED**

- Do not panic. The risk of serious infection is low.
- Wash skin well with soap and water and rinse thoroughly.
- Contact the parents.
- Take the child to the nearest hospital emergency department as soon as possible.

## **PROTOCOL FOR A STAFF MEMBER GETTING SPLASHED**

- Do not panic. The risk of serious infection is low.
- Wash skin well with soap and water and rinse thoroughly.
- Report to your supervisor/principal or replacement immediately. If you cannot do this, leave a message for your supervisor/principal or replacement.
- As soon as possible, go to the nearest hospital emergency department.
- For follow-up counselling, see your health care provider or occupational health services department.

Note: A splash of blood or body fluids can occur in the eyes, nose, or mouth.

**Refer to page 5 for hospital listings.**

# WATER

## QUALITY OF POTABLE WATER

Schools and daycares must be supplied with potable running water under pressure. Those who obtain water from non-municipal private water supplies (such as wells) must ensure that the water is tested in accordance with the ***Safe Drinking Water Act***. The operator must report any adverse results to Public Health Sudbury & Districts and the Spills Action Centre immediately. A public health inspector can help with suggestions for remedial action as well as an interim solution.

Lead is a health concern particularly for young children and pregnant women. Children less than six years of age are still developing and are therefore more sensitive to the neurological (brain) and blood effects of lead. Children under six years of age also absorb lead more easily than adults.

The ***Ontario Regulation 243/07*** (Schools, Private Schools and Day Nurseries) made pursuant to the ***Safe Drinking Water Act*** requires childcare centres, private schools and schools, that have or are in a building that has plumbing installed before January 1, 1990, to flush their lines daily, or that have plumbing installed on or after January 1, 1990, to flush weekly. Additional steps may be directed by the Medical Officer of Health. Flushing plumbing lines has been shown to significantly reduce the levels of lead in water coming out of the tap.



### Keep in mind . . .

Flushing should be done by allowing the cold water tap at the end of each run of pipe to run for at least five minutes after it runs cold. Flushing must be completed before the children arrive for the day.

## WATER TEMPERATURE

Schools and daycares require hot water for many functions other than handwashing. These include dishwashing, laundry, and general cleaning purposes. Hot water at children's hand wash sinks and other sinks accessible to children should be at the recommended temperature of at least 41°C (105°F) and should never exceed 49°C (120°F).

At a temperature of 49°C (120°F), it takes two minutes to burn the skin, while it takes only seconds to burn the skin at a temperature of 55°C (130°F). By lowering the temperature, it allows enough time for children to properly wash their hands and react before an injury occurs. Mixing faucets are recommended to provide warm water to hand wash sinks.

# WATER ACTIVITIES

A good way to keep cool outside during the summer is water activities. Sprinklers or wading pools are convenient alternatives to a public pool. Whichever is used, there are some safety guidelines that must be followed:

- Supervise children constantly whenever they are involved in water activities. Drowning can occur in less than 4 cm of water. Ensure that staff are present to supervise and that children are always within arm's reach. Also ensure that staff know the appropriate rescue techniques and CPR.
- Empty and turn wading pools upside down when not in use and between group use.
- If using a sprinkler, watch for pooling of water on the ground. Children may slip and injure themselves. If water collects, either move the sprinkler to another area or stop it until the water has drained.
- Never let children swim or play if an adult is not present.
- Do not allow boisterous play around the water such as pushing or running.
- Never allow glass, food, or drinks near the pool.

# WEATHER SAFETY

The ***Child Care and Early Years Act*** requires that children get two hours of outside playtime daily, weather permitting. However, it may be too cold, hot, or sunny for children to safely play outside.

## COLD WEATHER

Seven steps to follow to ensure cold weather safety:

1. **Listen to the weather forecast.** This is the best way to avoid the hazards of wind chill. Many groups and organizations already use the wind chill index to plan their outdoor activities.
2. **Plan ahead.** Have a plan already in place to deal with cold weather.
3. **Dress warmly.** Make sure that the children and staff dress in layers with a wind-resistant outer layer. Have extra mittens, gloves, toques, and something to keep the children's faces warm in case they lose or forget their own.
4. **Seek shelter.** If the wind chill is significant, get out of the wind, and limit the time children and staff spend outside.
5. **Stay dry.** Make sure that children stay dry. Wet clothing quickly chills the body.
6. **Keep active.** Keep the children moving. Running or walking will help them warm up by generating body heat.
7. **Be aware.** Children can be more susceptible to the cold. Watch the children for frostnip, frostbite, and hypothermia. Signs that a child may have frostbite include skin appearing white and waxy, hard to the touch, and numbness or no sensation. Suffering frostbite means that skin has actually frozen. Do not rub or massage the area. Do not warm the area until you can ensure it will stay warm. Warm the area gradually by using body heat or warm water (not hot). Avoid direct heat which can burn the skin. Seek medical attention to avoid further complications.

On a day when it is cold and windy, we often feel colder than we would if there were no wind at all. The combined effect of cold temperature and wind is called wind chill.



### Keep in mind . . .

*Environment Canada's* weather forecasts and warnings are available through radio and TV broadcasts, *Environment Canada's Weatheradio Network*, and online at [www.weather.gc.ca](http://www.weather.gc.ca).

# WEATHER SAFETY

## SUMMER HEAT

Heat and humidity can be very dangerous. Children are more at risk of dehydration because they have a high metabolic rate, produce more heat, and are smaller. It is also more difficult for them to cool down.

### Signs that a child may be dehydrated

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- tiredness
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head

### If a child shows signs of heat-related illness

- Call for medical assistance.
- Remove excess clothing from the child.
- Cool the child with water by sponging or bathing.
- Move the child to a cooler, shaded location.
- Give the child sips of cool water (not ice water) or 100% fruit juice.



#### Keep in mind . . .

If the child becomes ill, faints, has difficulty breathing, or is confused or disoriented, seek medical assistance immediately. In an emergency, call 9-1-1.



# WEATHER SAFETY

## Special considerations in summer heat

- Establish a policy and a plan to deal with extreme temperatures. Have hot weather backup plans like an indoor water day.
- Monitor the weather in summer months (humidex, smog, and hot weather alerts). Hot weather combined with poor air quality can increase the risk of adverse health effects.
- Ensure that staff are aware of the signs and symptoms of heat cramps, heat exhaustion, and heat stroke.
- Maintain a comfortable indoor temperature.
- Offer regularly scheduled rest periods. Balance vigorous play with quiet play to allow for the natural cooling of the body.
- Maintain and role model sun safe policies.
- Check regularly on infants and young children.
- Monitor children in wheelchairs. The metal and vinyl equipment can become very warm.
- Check pavement and playground structures. They can become very warm.
- Avoid outdoor activity during the hottest part of the day (from 11 a.m. to 4 p.m.) on high humidity days.
- Ensure that children and staff wear wide-brimmed hats when in the sun. Encourage parents to dress children in lightweight, light-coloured clothing on particularly hot days.
- Get written parental permission to apply sunscreen creams or lotion on children. Use sunscreen with an SPF of at least 30.
- Choose shaded areas for activity.
- Ensure that children are well hydrated by providing fluids before and after outdoor play. If they are thirsty while outside, allow them to drink right away. Thirst can be an early sign that dehydration is starting.

# WEST NILE VIRUS

West Nile Virus (WNV) is a mosquito-borne infection that is transmitted to humans through the bite of an infected mosquito. West Nile virus is not spread by person-to-person contact such as touching, kissing, or caring for someone who is infected.

Public Health Sudbury & Districts encourages staff to protect themselves and the children under their care from mosquito bites. Use a mosquito repellent with DEET or other approved active ingredients according to product directions when in areas of high mosquito activity.

Wear light-coloured protective clothing such as long pants and loose-fitting, long-sleeved shirts to minimize the possibility of exposure to mosquitoes in areas of high mosquito activity. Avoid letting children play in these high mosquito activity areas.

High activity areas for mosquitoes include:

- where there is standing water
- where there are weeds, tall grass, or bushes
- at dawn and after sunset when the temperature cools

Most people who are infected with West Nile virus either have no symptoms or experience mild illness such as a fever, headache, and body aches before fully recovering. Some people may also develop a mild rash or swollen lymph glands. In some individuals, particularly older adults, West Nile virus can cause a serious disease that affects brain tissue.

In the most serious cases, it can cause encephalitis (swelling of the brain). It can lead to permanent nerve damage and may be fatal. Symptoms of encephalitis include the rapid onset of severe headache, high fever, stiff neck, confusion, loss of consciousness, coma, or muscle weakness.

The mosquitoes that most commonly carry West Nile virus are generally more active during the evening, at night, and during dawn hours, so children who attend school or daycare during the day are at minimal risk for exposure.



## Keep in mind . . .

Teachers and daycare providers should receive permission from parents before applying insect repellents to children's skin and should always follow *Health Canada's* recommendations.

<https://www.canada.ca/en/health-canada/services/about-pesticides/insect-repellents.html>



# Part 8:

## Appendix Section





# APPENDIX A

## List of Diseases of Public Health Significance

Acquired immunodeficiency  
syndrome (AIDS)\*

Acute flaccid paralysis

Adverse Event Following  
Immunization (AEFIs)

Amebiasis

► **Anthrax**

Blastomycosis

► **Botulism**

► **Brucellosis**

Campylobacter enteritis

► **Carbapenemase-producing  
*Enterobacteriaceae* (CPE)  
(outbreaks)**

Carbapenemase-producing  
*Enterobacteriaceae* (CPE)  
colonizations and infections (cases)

Chancroid

Chickenpox (Varicella)

Chlamydia trachomatis infections

Cholera

► ***Clostridium difficile* infection (CDI)  
outbreaks and outbreak-  
associated cases within hospitals,  
preliminary notification**

► ***Creutzfeldt-Jakob* disease, all types**

Cryptosporidiosis

► **Cyclosporiasis**

► **Diphtheria**

Echinococcus multilocularis infection

Encephalitis, including:

1. Primary, viral
2. Post-infectious
3. Vaccine-related
4. Subacute sclerosing  
panencephalitis
5. Unspecified

► **Food poisoning, all causes**

► **Gastroenteritis, outbreaks in  
institutions and public hospitals**

Giardiasis

Gonorrhea

► **Group A *Streptococcus*, invasive**

Group B Streptococcal disease,  
neonatal

► ***Haemophilus influenzae* disease,  
all types, invasive**

► **Hantavirus pulmonary syndrome**

► **Hemorrhagic fevers, including:**

1. Ebola
2. Marburg virus disease
3. Other

Hepatitis, viral:

- 1. Hepatitis A
2. Hepatitis B
3. Hepatitis C

Influenza:

- **Laboratory confirmed cases  
of novel (not seasonal)**  
Seasonal cases

# APPENDIX A

▶ **Lassa fever**

▶ **Legionellosis**

Leprosy

▶ **Listeriosis**

Lyme disease

▶ **Measles**

▶ **Meningitis, acute:**

1. **Bacterial**

2. **Viral**

3. **Other**

▶ **Meningococcal disease, invasive**

▶ **Mumps**

Ophthalmia neonatorum

▶ **Paralytic shellfish poisoning**

Paratyphoid fever

▶ **Pertussis (Whooping cough)**

▶ **Plague**

Pneumococcal disease, invasive

▶ **Poliomyelitis, acute**

Psittacosis/Ornithosis

▶ **Q fever**

▶ **Rabies**

▶ **Respiratory infection outbreaks in institutions and public hospitals**

▶ **Rubella**

▶ **Rubella, congenital syndrome**

▶ **Salmonellosis**

▶ **Severe acute respiratory syndrome (SARS)**

▶ **Shigellosis**

▶ **Smallpox**

Syphilis

▶ **Tetanus**

Trichinosis

▶ **Tuberculosis (all sites)**

▶ **Tularemia**

Typhoid fever

▶ **Verotoxin-producing E.coli infection indicator conditions including Hemolytic uremic syndrome**

▶ **West Nile virus illness**

▶ **Yersiniosis**

Diseases in **BOLD RED** with an “▶” should be reported immediately to the Medical Officer of Health by telephone at **705.522.9200, 1.866.522.9200** (toll-free), or **705.688.4366** (after-hours emergency).

Other diseases are to be reported by the next working day.

\* Although not on the list of reportable diseases, Human Immunodeficiency Virus (HIV) infection is also reportable to the Medical Officer of Health since it is the agent responsible for AIDS.

# APPENDIX B

## Signs of Dehydration

**Parents should be advised to seek medical attention or bring their child to the hospital emergency as soon as possible in cases that involve:**

- decreased urination (less than four wet diapers within 24 hours) in infants/toddlers
- less and dark urine or no urine within six to eight hours in children over two years of age
- increased thirst
- dry skin, mouth and tongue
- no tears when crying
- irritability and restlessness
- fast heartbeat
- lethargy
- sunken eyes
- greyish skin
- very sleepy and hard to wake up
- sunken soft spot on the infant's head



# APPENDIX C

## Guidelines for Taking a Child's Temperature

Thermometers can be an infection risk. Whenever possible use electronic thermometers with a permanent base and disposable sleeve. Non-disposable parts must be cleaned and disinfected after each use.

Always follow the instructions that come with the thermometer. Do not use a mercury thermometer. Choose a digital thermometer made of unbreakable plastic. It is easy to read, and you can use it to take the temperature from the armpit or mouth.

Fever strips are not recommended as they do not give accurate readings.

### Armpit (axillary)

- Normal temperature range: 34.7°C to 37.3°C (94.5°F to 99.1°F).
- Recommended for newborns and young children.
- Clean the thermometer with cool, soapy water before and after use.
- Place the tip of the thermometer in the centre of the armpit.
- Make sure that the child's arm is tucked snugly against their body.
- Leave the thermometer in place for about one minute or until you hear a "beep".
- Remove the thermometer and read the temperature.
- Disinfect using a mild (1:100) bleach solution and let air dry.

### Ear (tympanic)

- Normal temperature range: 35.8°C to 38°C (96.4°F to 100.5°F).
- Recommended for children two years of age and older. Not reliable in children under two years of age.
- Use a clean probe tip every time.
- Gently hold the top portion of the ear and pull it up and back. This helps straighten the ear canal and makes a clear path inside the eardrum.
- Gently insert the thermometer until the ear canal is fully sealed off.
- Squeeze and hold the button for one second.
- Remove the thermometer and read the temperature.
- Note that ear thermometers are expensive and can be hard to use.
- Disinfect using a mild (1:100) bleach solution and let air dry.



# APPENDIX C

## **Mouth (oral)**

- Normal temperature range: 35.5°C to 37.5°C (95.9°F to 99.5°F).
- Recommended for children over five years of age.
- Clean the thermometer with cool, soapy water before and after use.
- Carefully place the tip of the thermometer under the tongue.
- With the child's mouth closed, leave the thermometer in place for about one minute or until you hear a "beep".
- Remove the thermometer and read the temperature.
- Disinfect using a mild (1:100) bleach solution and let air dry.

# APPENDIX D

## Caring for a Child with a Streptococcal Infection

### **If the child has scarlet fever, strep throat, or tonsillitis:**

- Encourage the child to get plenty of sleep and rest.
- Give the child plenty of liquids to keep the throat moist and prevent dehydration.
- Provide warm or cold soft foods and liquids, depending on what the child wants.
- If the child can gargle, a saltwater gargle of 1 teaspoon (5 ml) of table salt to 8 oz (237 ml) of warm water can help soothe a sore throat. Have the child gargle the solution and then spit it out.
- Humidify the air. Sit with the child for several minutes in a steamy bathroom.
- Keep the environment free from cigarette smoke and cleaning products that can irritate the throat.
- Treat pain and fever. To minimize throat pain and control a fever, analgesics such as acetaminophen (Tylenol®) or ibuprofen (Advil®) may be given to children. Ibuprofen should not be used with infants below six months.
- Replace the child's toothbrush 24 hours after the child has started the prescribed antibiotics.
- Apply a warm towel compress. A moist warm towel may help to soothe swollen glands around the child's neck.
- If the scarlet fever rash is itchy, make sure that the child's fingernails are trimmed short so skin is not damaged through scratching.

# APPENDIX E

## Spill Kit Contents to Clean Blood and Body Fluids

**A preassembled spill kit should contain:**

- garbage bags
- masking tape
- disposable gloves (non-latex)
- paper towels
- detergent
- bleach or other high-level disinfectant
- bucket
- mop
- cloths
- brushes

# APPENDIX F

## Glossary of Terms

**Alcohol-Based Hand Rub (ABHR):** A liquid, gel, or foam formulation of alcohol (such as ethanol, isopropanol) which is used to reduce the number of microorganisms on hands in clinical situations when the hands are not visibly soiled. ABHRs contain emollients to reduce skin irritation and are less time-consuming to use than washing with soap and water.

**Antimicrobial Soap/Antiseptic Soap:** Soap (detergent) that contains an antimicrobial agent (chlorhexidine, hexachlorophene, iodine compounds, triclosan, chloroxylenol/PCMX) to reduce the numbers of microorganisms on the skin. Low concentrations of these chemical agents are often used as a preservative in liquid soap, but are not effective as an antimicrobial agent (*see also Plain Soap*).

**Bacteria:** Tiny, one-celled forms of life that cause many diseases and infections.

**Cleaning:** The physical removal of foreign material (like dust, soil) and organic material (blood, secretions, excretions, or microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

**Cohorting:** The assignment of a geographic area such as a room to two or more clients or patients who are either colonized or infected with the same microorganism, with staffing assignments restricted to the cohorted group of patients.

**Contamination:** The presence of an infectious agent on hands or on a surface, such as clothing, bedding, toys, or other inanimate objects.

**Detergent:** A synthetic cleansing agent that can emulsify oil and suspend soil. A detergent contains surfactants that do not precipitate in hard water and may also contain protease enzymes (*see Enzymatic Cleaner*) and whitening agents.

**Disinfectant:** A product that is used on medical equipment/devices which results in disinfection of the equipment/device. Disinfectants are applied only to inanimate objects. Some products combine a cleaner with a disinfectant.

**Disinfection:** The inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores.

# GLOSSARY OF TERMS

**Drug Identification Number (DIN):** In Canada, disinfectants are regulated as drugs under the Food and Drugs Act and Regulations. Disinfectant manufacturers must obtain a drug identification number (DIN) from *Health Canada* prior to marketing, which ensures that labelling and supporting data have been provided and that the product has undergone and passed a review of its formulation, labelling and instructions for use.

**Germs:** Is a general term for different types of tiny organisms. Bacteria and viruses are examples of two different types of germs.

**Hand Hygiene:** A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using soap and running water or an alcohol-based hand rub (ABHR).

**Handwashing:** The physical removal of microorganisms from the hands using soap (plain or antimicrobial) and running water.

**Infection:** The entry and multiplication of an infectious agent in the tissues of the host.

**Outbreak:** For the purposes of this document, an outbreak is an increase in the number of cases above the number normally occurring in a particular institution over a defined period of time.

**Parasite:** An organism that grows, feeds, and is sheltered on or in a different organism while contributing nothing to the survival of its host.

**Pathogen:** An agent that causes disease, especially a living microorganism such as a bacterium, virus, or fungus.

**Personal Protective Equipment (PPE):** Clothing or equipment worn by staff for protection against hazards.

**PHSD:** Acronym for Public Health Sudbury & Districts.

**Plain Soap:** Detergents that do not contain antimicrobial agents or that contain very low concentrations of antimicrobial agents that are present only as preservatives.

# GLOSSARY OF TERMS

**Precautions:** Interventions to reduce the risk of transmission of microorganisms.

**Sanitizer:** Chemical product acceptable to the health authority that does not adversely affect the product, the equipment, or the health of a human used for sanitizing.

**Sanitizing:** Application of any effective method or substance to a clean surface for the reduction of bacterial count of pathogens to a safe and acceptable level and other organisms as far as practicable.

**Staff:** Anyone conducting activities in the institution.

**Staff Cohorting:** The practice of assigning specified staff to care only for clients/patients known to be colonized or infected with the same microorganism. These staff members would not participate in the care of clients/patients who are not colonized or infected with that microorganism. *See also, Cohorting.*

**Virus:** A minute infectious agent which, with certain exceptions, is not resolved by the light microscope, lacks independent metabolism and is able to replicate only within a living host cell.

5



# Part 9: Resource Section

6  
7



8





# Immediate Reporting of Communicable Diseases

Name of School/Daycare: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
DD MM YYYY

STUDENT NAME AND DATE OF BIRTH (DD/MM/YYYY)	PARENT'S NAME	HOME ADDRESS, HOME PHONE, AND WORK PHONE	COMMUNICABLE DISEASE TO REPORT	FOR PHSD USE ONLY
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		

Use this form for diseases that require immediate reporting.



Report communicable diseases by phone or fax to:  
Public Health Sudbury & Districts  
Telephone: 705.522.9200 or 1.866.522.9200 (toll-free)  
Emergency After-hours: 705.688.4366  
Fax: 705.677.9618

Principal/Operator: \_\_\_\_\_  
(please print)  
Signature: \_\_\_\_\_



# Monthly Reporting of Communicable Diseases

Name of School/Daycare: \_\_\_\_\_ Report for the Month of: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month YYYY

STUDENT NAME AND DATE OF BIRTH (DD/MM/YYYY)	PARENT'S NAME	HOME ADDRESS, HOME PHONE, AND WORK PHONE	COMMUNICABLE DISEASE TO REPORT	FOR PHSD USE ONLY
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		
First:				
Last:				
DOB:		home: work:		

Use this form to submit a monthly report (nil or otherwise).



**Public Health**  
**Santé publique**  
SUDBURY & DISTRICTS

Mail or fax your report to:  
Control of Infectious Diseases Program  
Public Health Sudbury & Districts  
1300 Paris St  
Sudbury, ON P3E 3A3  
Fax: 705.677.9618

Principal/Operator: \_\_\_\_\_  
(please print)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
DD MM YYYY

Page \_\_\_\_\_ of \_\_\_\_\_



# Line Listing - Enteric Outbreak

Facility Name: \_\_\_\_\_ Outbreak Number: \_\_\_\_\_

Case number	Name	DOB	Room/Age Group	Staff	Onset of symptoms (date and time)	Symptoms <i>check all that apply</i>			Additional symptoms <i>check all that apply</i>										Date sent home	Symptoms resolved (date and time)	Date returned to daycare	Date stool collected	Stool (+) / (-)
						V	D	BD	WD	N	F	M	H	C	A	O							



# Line Listing - Respiratory/Non Enteric Outbreak

Facility Name: \_\_\_\_\_ Outbreak Number: \_\_\_\_\_

Area/Zone: \_\_\_\_\_

Case number	Name	DOB	Room/Age Group	Staff	Onset of symptoms (date)	Symptoms (check all that apply)								Comments	Last day attended (date)	Symptoms resolved (date)	Returned to daycare (date)
						Cough	Fever/abnormal temp	Malaise	Nose: congestion/runny/sneezing	Throat: sore/hoarseness/difficulty swallowing	Headache	Other – specify (e.g. rash):					





# INDEX A TO Z

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