

Chapter 3

Illness in your centre

Introduction

No matter how careful you are, an infectious illness will happen in any child care centre. Limited immune defense and ready transmission of infection make infants and toddlers in a group care setting susceptible to communicable diseases.

Refer to Appendix 3 *Guidelines and Information on Common Childhood Communicable Diseases* for a summary of diseases you may have to deal with in your centre, and advice on what to do when one occurs.

This chapter contains information on the following topics:

- Signs of physical illness
- Outbreak control measures
- Influenza pandemic
- Preparing for a Pandemic
- Personal emergency kit
- HIV/AIDS, Hepatitis B and Hepatitis C
- Lice (Appendix 3)

Tips for success

- Have written policies in place for exclusion and return of ill children, exclusion and return of ill staff, and outbreak control measures
- Ensure that parents are aware of and understand your policies before they register their children in your centre
- Advise parents to have alternate plans or arrangements should their child get sick and need to be picked up, including the name, address, and phone number of an alternate contact. Refer to the section on *Emergency information and health history form* in Chapter 1.
- Have written policies in place for children with HIV/AIDS and Hepatitis B and C

York Region Community and Health Services will notify parents when there is a case of a communicable reportable disease within the centre. Refer to Appendix 3 for *Reportable Disease List*. However, if there is a child in the centre with cancer, leukemia, or another immune deficiency, the child care centre should notify the parents immediately if an infectious rash or contagious disease occurs in other children or staff.

Signs of physical illness

A sign is any objective evidence or manifestation of an illness. Daily observation of children as they arrive at the centre and before they come in contact with the other children in the centre is strongly recommended. Important signs of illness are listed below. If any of these signs are observed, contact the child's parent(s) and ensure the child receives medical attention as needed.

Refer to Appendix 3 *Guidelines and Information on Childhood Communicable Diseases* and *Guidelines for Common Communicable Diseases* for information on signs and symptoms of diseases, how they spread, and whether or not they require exclusion. Refer to Appendix 3 *Recommended policy of ill staff in child care*. For more information please call York Region *Health Connection* at 1-800-361-5653 and speak to a public health nurse.

- **Diarrhea**
 - Any change from the child's normal stool to a liquid or loose state (whereby the stool would conform to the shape of a bottle)
- **Severe coughing**
 - Child gets red or blue in the face
 - Child makes high-pitched croupy or whooping sound after they cough
 - Child vomits after coughing episode
- **Difficult or rapid breathing**
 - This is especially important in an infant under six months old
 - Change in skin colour
- **Runny nose**
- **Yellowish skin or eyes**
- **Redness of eyelid lining**
 - Tears, irritation, followed by swelling and discharge of pus
- **Unusual spots or rashes**
- **Sore throat or trouble swallowing**
- **Infected skin patch(es)**
 - Crusty, bright yellow, dry or gummy areas of skin
- **Unusually dark, tea-coloured urine**
- **Grey or white stool**
- **Headache and stiff neck**

- **Vomiting**
- **Unusual behaviour**
 - Child is cranky or less active than usual
 - Child cries more than usual
 - Child feels general discomfort or just seems unwell
- **Loss of appetite**
- **Severe itching**
 - Itching of body or scalp or scratching of the scalp
- **Seizure**
- **Fever**
- **Pain**

Diarrhea

Diarrhea is any change from the individual's normal stool to a liquid or loose state (whereby the stool would conform to the shape of a bottle). Diarrhea stools are often more frequent than usual bowel movements and the child may lose bowel control.

Fever, loss of appetite, stomach pain, nausea and vomiting may sometimes accompany diarrhea. The stools may have a strong odour.

Infants and toddlers can become critically ill from severe diarrhea because fluid loss associated with it leads to dehydration.

The causes can be infectious, (e.g., Norovirus, Rotavirus) or non-infectious (food intolerance or reaction to a medication).

What to do

- If a child has one episode of diarrhea, separate the child from the group and watch for other signs of illness for the remainder of the day. Refer to the section on *Signs of physical illness* in this chapter.
- If the diarrhea stops and the child does not appear to be ill, inform the child's parents at the end of the day
- Continue feeding usual diet (including breastmilk, formula or milk and solid foods) in small, frequent feedings

- Avoid offering foods high in simple sugars (such as juices, soft drinks, ice cream, sherbet, sweetened cereals) and foods high in fat (such as fried foods)
- If a child has more than one episode of diarrhea in one day, call the child's parent(s) or emergency contact person as soon as possible and request that they **pick up the child**. Refer to the section on *Emergency information and health history form* in Chapter 1. Tell them to keep the child home until the stools return to normal (**no sooner than 24 hours after the last bout of diarrhea**). **The child must not be accepted back to the centre until diarrhea has ceased for a minimum of 24 hours.**
- If the child returns the next day and has more diarrhea episodes, immediately telephone the child's parent(s) and request they pick up the child. The child should be seen by a doctor and a stool sample should be submitted for testing. The child will have to be excluded again until symptom-free for a minimum of 24 hours. Additional exclusion may be required depending on the cause of the diarrhea.
- Because diarrhea germs spread easily from person to person, handwashing is very important for staff and children. Refer to the section on *Handwashing* in Chapter 2.

Note: To identify infectious causes, a medical examination and laboratory tests are required. Remember, diarrhea is **not** a symptom of teething!

Do not wash any stool-stained clothes in your centre. Bag and return to parent. Refer to the section on *Keeping your centre clean* in Chapter 2 for information on how to disinfect surfaces contaminated with diarrhea.

Vomiting

Vomiting is the forceful expulsion of liquid or food from the stomach through the mouth.

Children vomit more readily than adults and often with much less discomfort. Children may vomit as a result of problems not directly related to the bowel or stomach. The cause may not be infectious.

Young children sometimes vomit because of a fever, especially a high one. If the child also has episodes of diarrhea, you should suspect an infectious cause.

What to do

- If a child has an episode of vomiting, separate the child from the group and watch for other signs of illness. Refer to the section on *Signs of physical illness* in this chapter.
- Give the child small drinks of water. Do not offer solid food or milk.
- Inform parents after vomiting occurs and observe child if otherwise well
- If more than one bout of vomiting occurs, inform the child's parents or emergency contact person immediately, and request that they **pick up the child**. Refer to the section on *Emergency information and health history form* in Chapter 1. **Tell them to keep the child home until they have completely ceased vomiting for a minimum of 24 hours.**
- Call the child's parents if the child has other symptoms such as earache, stiff neck or a change in behaviour. Ask them to pick up their child and seek medical attention.
- If the child appears to have pain in the abdomen, inform the parents immediately. Ask them to pick up the child and seek medical assessment.
- Because germs from vomitus can spread easily from person to person, handwashing is very important for staff and children. Refer to the section on *Handwashing* in Chapter 2.

Clean and sanitize the area where the child vomited as soon as possible. Wash hands thoroughly. Refer to the section on *Keeping your centre clean* in Chapter 2.

Fever

Fever is an elevation of body temperature above normal. The normal temperature range, taken in the armpit, is around 36.4°C – 37.4°C (97.5°F – 99.3°F). A fever is usually a symptom of an illness, and may be caused by germs called bacteria or viruses.

Suspect a fever when an infant or child has one or more of these signs:

- Flushed face
- Hot, dry skin
- Headache
- Vomiting
- Diarrhea
- Cranky
- Tired behaviour
- Sore throat
- Rash
- Cough
- Earache (a younger child may pull at their ear)
- Pain when passing urine, or urinating more often than usual
- Stiff neck
- Seizures or “fits”
- Twisting or shaking

What to do if you suspect a child has a fever

- Isolate the child in a quiet area/room and take the child’s temperature. Refer to the section on *How to take a temperature* in this chapter. Reassure and stay with the child during the whole process.
- Offer the child cool, clear fluids such as water or juice every 15 minutes
- Dress the child in few clothes (T-shirt and diaper/underpants or cotton sleepwear). This helps cool the child’s body.
- Take the temperature again in 30 to 60 minutes to monitor the child’s condition. Note and record time and temperature. Contact the parent or emergency contact person and give them this information. Refer to the section on *Consent to obtain emergency medical care on behalf of the child* in Chapter 1.
- Write down what the child did, looked like, or said that made you suspect illness – this helps the parent or emergency contact person explain to the doctor what signs of illness the child has

- After doing all of this, if the child is getting worse and the parent or emergency contact person has not arrived, contact the child's doctor or arrange for the child to be taken to the hospital
- Re-admit the child to the centre when they are well enough to participate (fever free for at least 24 hours without medication), unless the physician makes a diagnosis requiring a longer exclusion

Note: Immunizations or booster shots may cause fevers in preschool children. Remember, fever is **not** a typical symptom of teething.

Do not give any medication to children without written instruction from the parent. Refer to the section *Scheduled medication and treatment record and Medication and/or treatment record for emergencies or special circumstances* in Chapter 1.

How to take a temperature

1. Reassure the child and explain what you are going to do. Remain with the child while taking the temperature.
2. If using a glass thermometer, shake the glass thermometer so that the reading is 35°C (95°F) or lower
3. Remove the child's clothing from the armpit area so that clothing will not interfere with the reading
4. Ensure that the child's armpit is dry
5. Place the thermometer under the child's arm, high up in the armpit area
6. (a) When using a glass thermometer, hold the arm securely against their body for three to five minutes
 - (b) When using a digital thermometer keep it under the arm until the peak temperature is reached (as described in the manufacturer's instructions)
7. Remain with the child and ensure that the child remains still while you are taking the temperature
8. Remove the thermometer. To read the glass thermometer, hold it by the end opposite the bulb and at eye level. Read at the point where the mercury stops.
9. Clean the thermometer as described in *Thermometer care* in this chapter

Thermometer care

Digital arm thermometer

- Wash only the tip of a digital thermometer with soap and warm water
- Wrap the tip in a cotton ball soaked in 70 to 90% isopropyl alcohol (rubbing alcohol) for 10 minutes
- Dry the thermometer thoroughly with tissue. Replace in the thermometer holder.

Digital ear thermometer

- Clean and disinfect the portion which inserts into the child's ear in accordance with the manufacturer's directions
- Place a new protective shield on the portion that inserts into the child's ear with every use of the thermometer

Glass thermometer

- Wash the glass thermometer with soap and warm water
- Wrap the thermometer in a cotton ball soaked in 70 to 90% isopropyl alcohol (rubbing alcohol) for 10 minutes
- Replace in the thermometer holder

Refer to the section on *Keeping your centre clean* in Chapter 2 for other methods of disinfecting thermometers.

The temperature should be taken in the armpit if the child is under five years of age.

Rashes

Rash is a general term for any eruption of the skin. The rash is usually a shade of red.

There are many kinds of rashes in children and most are not caused by infection, but when a rash occurs with fever, infection is the likely cause.

Most infections are spread by coughing, sneezing or breathing before the rash is seen. Occasionally it is necessary to remove the child with a rash from child care or to separate the child from other children. Infections that cause a rash may require exclusion (keeping the child out of the child care centre). Report a new or unusual rash to the parent and encourage diagnosis by a physician.

When you are registering children, ask the parents if their child gets rashes. This will help you decide what to do if the child gets a rash. Refer to the section on *Emergency information and health history form* in Chapter 1.

What to do

- If you suspect the child is ill (e.g., feverish, crying), separate the child from the other children, and notify the parent
- If the child develops a rash, notify parents promptly. Encourage diagnosis by a physician. A doctor's note may be required for return to the centre.

Enteric outbreaks

How to know when there is an outbreak

An outbreak occurs when there are three or more related cases (in children and/or staff) with similar signs and symptoms of an infection or illness, or, three or more laboratory confirmed cases, or when illness rate exceeds the norm in the centre within a short period of time.

Typical symptoms of enteric illness are:

- Diarrhea
- Bloody diarrhea
- Vomiting
- Fever
- Stomach cramps
- General irritability
- Malaise
- Headache

Early detection of signs and symptoms through observation of children's health, as well as good record keeping are crucial to the recognition and control of an outbreak.

Who to call

If you suspect an outbreak, please notify York Region Community and Health Services at the numbers below and be prepared to provide information about the suspected outbreak. Refer to Appendix 3 *Enteric Outbreak Control Guidelines for Child Care Centres* for more information.

Report an outbreak to: York Region Community and Health Services

**Monday to Friday, between 8:30 a.m. and 4:30 p.m.
(905) 830-4444 ext. 3500**

**After hours including weekends and holidays
(905) 953-6478**

Influenza pandemic

Influenza pandemics occur when all four of the following occurs:

1. A new influenza A virus is detected
 2. The population has little or no immunity to this virus
 3. The new virus can spread efficiently from human-to-human
 4. The new virus causes serious human illness and death
- An influenza pandemic is characterized by its scope or span. It becomes a world wide pandemic when a disease spreads easily and quickly through many countries and regions of the world affecting a large percentage of the population in the affected area.
 - Unlike many other viral respiratory infections (e.g., the common cold, seasonal influenza) the flu causes severe illness and life-threatening complications in many people
 - Seasonal influenza is caused by one of the three groups: influenza A, B and C. Type C rarely causes human illness. Only influenza A is associated with pandemics.
 - With increased global interdependence, transportation and communications, as well as urbanization and overcrowded conditions, epidemics of a new influenza virus are likely to occur and spread quickly around the world
 - Outbreaks of influenza in animals, especially when happening simultaneously with outbreaks in humans, increase the chances of a pandemic. The merging of animal and human influenza viruses can create a new virus to which humans have little to no immunity.

Influenza symptoms

Influenza is caused by a virus which infects the respiratory tract (nose, throat, lungs). It usually starts suddenly and may include these symptoms:

- Fever (usually high, lasting 3-4 days)
- Dry cough
- Muscle pain (often severe)
- Weakness and fatigue (can last 2-3 weeks)
- Headache (often severe)
- Sore throat
- Runny or stuffy nose
- Diarrhea and vomiting (in children)

Preparing for an emergency including a pandemic

Personal emergency kit

Personal preparedness begins with you. Emergencies can arise at any time and it is important that you and your staff are prepared. A simple 72-hour emergency kit that is easily accessible, portable and stocked with all of the essentials can make all the difference in an emergency situation. Time is of the essence during an emergency situation and you may not have time to locate and assemble all of these items.

Here are some additional ideas to help you plan for emergencies:

- Sit down and talk to your staff about what to do in different emergency situations such as fire, flood, tornadoes or pandemic
- Have staff trained in First Aid and CPR. You can get more information through St. John Ambulance at their website www.sja-yorkregion.org
- Make sure all staff is aware of the emergency kit's location, what it contains and how to use it. If your kit contains a First Aid manual, make sure all staff have reviewed its contents.

Refer to the *Personal Emergency Kit Checklist* in Appendix 3 for a list of items you need to complete an emergency kit for your centre. Refer to the *Be Prepared: Make a Plan* in Appendix 3 for further information.

Pandemic planning

During a pandemic emergency, you may be ill and unable to leave your home. Preparing a two week supply of necessary items (food, water, prescription drugs, etc) is recommended. To help you prepare for a pandemic refer to the *Personal Emergency Kit* section in this Chapter.

Teach children to protect themselves through proper hygiene practices such as: washing hands frequently, before eating and after using the washroom, staying home when sick and covering their cough and sneeze with a tissue. Refer to the *Handwashing* section in Chapter 2 for more information.

Reproduced from "Ontario Health Plan for an *Influenza Pandemic*," Ministry of Health and Long Term Care. June 2007.

HIV/AIDS, Hepatitis B, Hepatitis C

As the number of Canadians getting tested for HIV, Hepatitis B and Hepatitis C continues to grow, so does the number of known infections. There is an increased chance of having a child, parent or staff member with one of these blood borne infections in a child care centre.

When staff members have been educated about these infections and established guidelines and policies, they are better equipped to understand and promote standard practices. Refer to Appendix 3 *Handling blood and body fluids* for further information.

It is vital that child care providers respond in ways which are supportive of the infected person and of the people around them that are affected by the illness.

Refer to the section on *Routine practices to prevent or reduce the transmission of diseases* in Chapter 5.

Staff should also consider immunization for Hepatitis B.

The following pages provide the similarities and differences between HIV, Hepatitis B and Hepatitis C and a discussion of potential occupational risks. Refer to Appendix 3 *Hepatitis B fact sheet; Hepatitis C fact sheet and HIV and AIDS fact sheet* for more information.

For more information please call York Region *Health Connection* at 1-800-361-5653 and speak to a public health nurse.

HIV, Hepatitis B and Hepatitis C similarities and differences

The similarities and differences for HIV, Hepatitis B and Hepatitis C are presented below.

Similarities

HIV, Hepatitis B and Hepatitis C:

- Are blood borne infections caused by viruses
- Are diagnosed by blood tests
- Often let people look and feel healthy for years before becoming ill
- Can be treated
- Can lead to severe illness that can result in death
- Can be prevented. Refer to the section on *Routine practices to prevent or reduce transmission of diseases* in Chapter 5

Differences	HIV	Hepatitis B	Hepatitis C
Part of body affected	Immune system	Liver	Liver
Fluids which transmit the virus	Blood, semen, vaginal fluids, breast milk	Blood, semen, vaginal fluids, possibly saliva and breast milk	Primarily blood
Transmission: <ul style="list-style-type: none"> • Sexual • Household • Maternal/fetal 	Yes Very rare Low with medication	Yes Low Low with prophylaxis	Low Low Low
Risk of infection following needlestick injury with positive source	Less than 1%	6 – 30%	3 – 10%
Ability of the virus to survive outside the body	Fragile	Can survive on surface up to one week	No longer than four days
Immunity following infection	No	90% adults 10% infants become immune	No 60–90% become chronic carriers
Vaccine available? Immune Globulin available?	No No	Yes Yes	No No
Cure available?	No	No	Yes, in many cases

Exposure to blood borne infections: occupational risks

If there is an exposure to a blood borne infection in an occupational setting, the chance of the virus being transmitted depends on the type of infection, the body fluid involved, and the route and severity of the exposure.

Type of body fluid

Hepatitis B, Hepatitis C and HIV are carried in an infected person's body fluids as described in the table below.

Body fluid	Virus that can be present		
	Hepatitis B	Hepatitis C	HIV
Blood, serum or plasma	Yes	Yes	Yes
Any body fluid visibly contaminated with blood	Yes	Yes	Yes
Semen or vaginal secretions	Yes	Unlikely	Yes
Saliva	Yes	No, unless contaminated with blood	

Determining the significance of exposures

Significant exposures are those where there is a risk that the virus may be transmitted from one person to another, such as:

- A **puncture injury**, where the skin is punctured with a sharp object, such as a cut, bite or a needlestick and infectious body fluids are present
- A **mucous membrane exposure**, such as a splash of body fluids to the eyes, nose or mouth
- Contact with **non-intact skin**, such as when skin that is chapped or has cuts, scrapes or wounds less than three days old is exposed to infectious body fluids

Note: Prolonged exposure of intact skin to large volumes of blood can be potentially significant for HIV transmission.

Non-significant exposures are those where the virus is unlikely to be transmitted, such as:

- A minor puncture injury, mucous membrane or skin exposure to a *non-infectious* body fluid
- Exposure of intact skin to a small quantity of blood (less than three drops) or fluid visibly contaminated with blood of short duration
- A bite, unless there has been a clear transmission of infected blood
- A superficial scratch which does not bleed
- Injuries received in fights, unless it is clear that a transfer of infected blood has occurred

Potential occupational risks where transmission may be possible and the protective measures that can be taken are presented in the following table.

Potential occupational risks

Type of incident	Transmission possible			Protective measures
	HIV	Hep B	Hep C	
Human bites	No	Yes	Yes	Risk is increased if person biting has open sores in their mouth or bleeding gums. Exercise care in every work situation. If there is an open wound or if body fluids are present, wear gloves. Refer to <i>Routine practices to prevent or reduce the transmission of disease</i> in Chapter 5.
Spitting	No	No	No	Exercise care in every work situation. If saliva or other mucous gets on your skin or clothing, wash as soon as possible with soap and water.
Rescue breathing/CPR	No	No	No	Use a protective mask or airway for barrier protection. If reusable, decontaminate mask/airway immediately after use, using proven germicide or chlorine bleach solution. Bleach is not recommended for use on rubber material. Refer to the section on <i>Keeping your centre clean</i> in Chapter 2.
Needlesticks	Yes	Yes	Yes	Exercise care around needles and other sharp objects. Do not recap or break needles prior to disposal. Do not recap or break other sharp objects after use. Rather, place in puncture-resistant container. Handle all sharp items with care, as if they are contaminated.
Mucous membrane or other direct contact with contaminated bloody/body fluids (e.g., blood splash to eyes, open skin, mouth)	Yes	Yes	Yes	If working with or transporting a child with open sores or wounds, wear disposable gloves. Be especially careful to protect cuts or sores on your hands. After contact, wash thoroughly with soap and water. Clean up spills of blood and other fluids with a proven germicide or chlorine bleach solution. Refer to the section on <i>Handwashing</i> and <i>Keeping your centre clean</i> in Chapter 2.