

# **Common Childhood Infections**

**A Guide for Principals,  
Teachers and Child Care  
Providers**

**Prepared By: Thunder Bay District Health Unit  
Infectious Diseases Program  
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# TABLE OF CONTENTS

	<b>PAGE</b>
Introduction	1
Communicable Diseases	2
Guidelines for Exclusion	3
Reporting Communicable Disease	4
Infectious Disease Exclusion Responsibilities	5
Reportable Disease List	6
Vaccine Preventable Disease Program: Immunization	7
Provincial Immunization Schedule	8
Common Childhood Infections	9 - 22
Hand washing	23
Respiratory Etiquette	24
Guidelines for Handling Blood or Body Fluids	25
Infectious Disease Outbreaks	26
References	27

# INTRODUCTION

This resource, *Common Childhood Infections, A Guide for Principals, Teachers and Child Care Providers*, has been prepared by the Health Unit's Infectious Disease Program to assist staff in dealing with childhood infections. The goal of the resource is to work collaboratively to keep our children healthy.

The resource includes a chart outlining the common childhood infections of concern. For each disease, the chart provides an overview of the signs, symptoms, and means of spread as well as any exclusion recommendations that may apply. The chart also distinguishes between diseases that are reportable to the Health Unit and those that are not reportable. ***It is important to note that a physician must make any diagnosis.***

An overview of infection prevention and control strategies, including hand washing and respiratory etiquette (e.g. covering coughs and sneezes with a sleeve) procedures, are also included for the benefit of both staff and children. This information may be useful in preventing and/or reducing the spread of disease in the event of a possible outbreak.

Please contact the Infectious Diseases program at 625-8318 or 1-888-294-6630, ext. 8318 (toll free) with any questions about the information listed in this resource.

# COMMUNICABLE DISEASES

Any disease that can be spread from one person to another by a specific organism is considered to be contagious, infectious or communicable.

Children may be exposed to a variety of communicable diseases and illnesses during their pre-school and school years. Staff can help limit the spread of infection and illness by following these guidelines:

- Encourage children and students to practice good health and hygienic behaviours at all times including hand washing and proper respiratory etiquette (e.g. covering coughs and sneezes with a sleeve).
- Recognize significant deviations or changes in the health and behaviour patterns of children and students, and consult with parents and/or the appropriate school official, Health Unit or other community resources. Refer to the *Guidelines for Exclusion* (page 3) for the warning signs of illness.
- Make sure appropriate actions according to the child care, school and/or Health Unit policies are taken if a child or student is ill (e.g. exclusion, reporting).

## How Infection Spreads

- Infections are illnesses that are caused by germs. Examples of germs include bacteria, viruses, parasites or fungi.
- Germs are found in body secretions (e.g. stool), in tiny droplets produced by breathing, coughing or sneezing or in infected areas of the skin. They can survive for hours, days or even longer in the environment outside the infected person.
- Germs are spread from one person to another in different ways. Some are spread through the air or by contact with stool or blood. Others can be spread through direct physical contact that can happen when touching someone's infected skin or contact through touching contaminated toys or contaminated surfaces.
- A person with an illness is often infectious before symptoms develop, and sometimes even after recovery. In others, a person may spread germs without having any signs of illness; they are called a carrier.

## The Basics of Infection Control

- Assume that all children in your care are potentially infectious.
- Proper **hand washing** is the single most important measure to prevent the spread of infection.
- Keep premises, equipment and hands as clean as possible.
- Ensure that children and staff are appropriately immunized for their ages.
- Separate children, if possible, from other children when they become ill.
- Re-admit a child only when they have recovered from the infection as outlined on the *Guidelines for Exclusion* on page 3.

# GUIDELINES FOR EXCLUSION

Certain symptoms in children may suggest the presence of a communicable disease. For the mildly ill child, exclusion should be based on whether there are adequate facilities and staff available to meet the needs of both the ill child and other children in the group.

Children who have the following symptoms should be excluded until a physician has examined them and/or they no longer have symptoms. The following information is meant as a guide to assist staff in taking the appropriate action for handling ill children. Exclude:

Unusual behavior	<ul style="list-style-type: none"> <li>• If illness prevents participation in normal activities.</li> <li>• If child looks or acts differently, is unusually tired, difficult to awaken, irritable, inconsolable crying, pale, confused, or lacking appetite</li> </ul>
Respiratory symptoms	<ul style="list-style-type: none"> <li>• If breathing is difficult or rapid or if there is a severe cough.</li> <li>• If child makes a high-pitched croupy or whooping sound after coughing or if child is unable to lie comfortably due to continuous cough.</li> </ul>
Vomiting	<ul style="list-style-type: none"> <li>• If two or more episodes of vomiting in last 24 hours.</li> </ul>
Diarrhea	<ul style="list-style-type: none"> <li>• If an increased number of abnormally loose stools in the previous 24 hours.</li> <li>• Observe child for other symptoms such as fever, abdominal pain or vomiting. Refer to <i>Outbreak Control</i> section.</li> </ul>
Fever	<ul style="list-style-type: none"> <li>• If axillary (e.g. under the armpit) or oral temperature reaches 38°C or higher.</li> <li>• This high temperature is a concern especially if accompanied by other symptoms such as vomiting, sore throat, diarrhea, headache, stiff neck, rash, or change in behavior.</li> </ul>
Eye/Nose Drainage	<ul style="list-style-type: none"> <li>• If thick mucus or pus is draining from the eye or nose.</li> </ul>
Itching	<ul style="list-style-type: none"> <li>• If child experiences persistent itching or scratching of body or scalp.</li> </ul>
Rashes	<ul style="list-style-type: none"> <li>• If child has sores with crusty, yellow or green drainage which cannot be covered by clothing or bandages.</li> <li>• Children who have a rash but no fever or change in behavior can continue in school or daycare, although they may need to be seen by a physician</li> </ul>
Unusual color	<ul style="list-style-type: none"> <li>• If eyes or skin are yellow (jaundice).</li> <li>• If urine is dark or tea colored.</li> <li>• If stool is grey or white.</li> </ul>

# REPORTING COMMUNICABLE DISEASE

The *Health Protection and Promotion Act*, 1993, Part IV, Section 28 reads as follows:

"The Principal of a school, who is of the opinion that a pupil in the school has or may have a communicable disease shall, as soon as possible after forming the opinion, report thereon to the Medical Officer of Health in which the school is located."

This legislation supersedes the *Freedom of Information Act*. The reportable diseases, specified by provincial law, are listed on page 6.

## All information will be received as confidential.

Physicians and hospitals as well as day nurseries, laboratories and other institutions must report reportable diseases to their local health unit.

## Reporting Diseases to Your Local Health Unit

Principals and day care supervisors, or their designates, should report by telephone to the Medical Officer of Health or designate (e.g. Infectious Diseases program) as soon as they are aware of the diagnosis. The phone and fax numbers are listed below.

Supply the following information when reporting a suspected or medically diagnosed communicable disease:

- name of child
- date of birth
- name of parents/guardians
- contact phone number for parents/guardians
- address
- telephone number
- child/student's physician

## Contact the Health Unit office in your area:

Location	Phone	Fax
Thunder Bay	625-8318	625-4822
Geraldton	854-0454	854-1871
Manitouwadge	826-4061	826-4993
Marathon	229-1820	229-3356
Nipigon	887-3031	887-3489
Schreiber	824-2413	824-2349

# INFECTIOUS DISEASE EXCLUSION RESPONSIBILITIES

## **Responsibility for excluding from school or child care**

It is the responsibility of the principal or daycare supervisor to exclude a child from school or day care if this measure is necessary to control the spread of the disease.

In general, the principal or daycare supervisor may, at their discretion, exclude a child if a risk to other children is perceived. This is a personal decision between the principal or day care supervisor, the parent(s) or guardian(s) and the child's family physician. Health Unit staff are available for advice if needed.

## **Authority of the Medical Officer of Health: Immunization of School Pupils Act, 1990 and the Day Nurseries Act 1990**

Under the *Immunization of School Pupils Act*, 1990, Section 12 and under the *Day Nurseries Act*, 1990 Reg. 262, Section 31, the Medical Officer of Health has the authority to direct the operator of a school or day care, by written order, to exclude certain pupils from school or day care in the interest of infectious disease control. Two categories are specified:

- 1) Any child who does not have documented evidence of immunization for a designated disease\* or authorized evidence of exemption on the basis of medical contraindication, religious or philosophical objection.
- 2) In the event of an outbreak or immediate risk of an outbreak of a designated disease\* any child, regardless of exemption, who is not immune to that disease by virtue of prior immunization or medical or laboratory evidence prior to infection with that disease.

\*Designated diseases for schools are measles, mumps, rubella (German measles), diphtheria, tetanus, and poliomyelitis. Designated diseases for day cares also include pertussis (whooping cough) and haemophilus influenzae type b.

# REPORTABLE DISEASES LIST

The following specified *Reportable Diseases* (Ontario Regulations 559/91) and amendments under the *Health Protection and Promotion Act* are to be reported to the local Medical Officer of Health:

<p>Acquired Immunodeficiency Syndrome (AIDS) Amoebiasis</p> <ul style="list-style-type: none"> <li>* <b>Anthrax</b></li> <li>* <b>Botulism</b></li> <li>* <b>Brucellosis</b></li> </ul> <p>Campylobacter enteritis Chancroid Chickenpox (Varicella) Chlamydia trachomatis infections Cholera</p> <ul style="list-style-type: none"> <li>* <b>Cryptosporidiosis</b></li> <li>* <b>Cyclosporiasis</b></li> </ul> <p>Cytomegalovirus infection, congenital</p> <ul style="list-style-type: none"> <li>* <b>Diphtheria</b></li> <li>* <b>Encephalitis, including:</b> <ol style="list-style-type: none"> <li>1. Primary, viral</li> <li>2. Post-infectious</li> <li>3. Vaccine-related</li> <li>4. Subacute sclerosing panencephalitis</li> <li>5. Unspecified</li> </ol> </li> <li>* <b>Food poisoning, all causes</b></li> <li>* <b>Gastroenteritis, institutional outbreaks</b></li> <li>* <b>Giardiasis</b></li> </ul> <p>Gonorrhoea</p> <ul style="list-style-type: none"> <li>* <b>Haemophilus influenzae b disease, invasive</b></li> <li>* <b>Hantavirus Pulmonary Syndrome</b></li> <li>* <b>Hemorrhagic fevers, including:</b> <ol style="list-style-type: none"> <li>1. Ebola virus disease</li> <li>2. Lassa Fever</li> <li>3. Marburg virus disease</li> <li>4. Other viral causes</li> </ol> </li> <li>* <b>Hepatitis, viral</b> <ol style="list-style-type: none"> <li>1. Hepatitis A</li> <li>2. Hepatitis B</li> <li>3. Hepatitis C</li> <li>4. Hepatitis D (Delta hepatitis)</li> </ol> </li> </ul> <p>Herpes, neonatal Influenza</p> <ul style="list-style-type: none"> <li>* <b>Legionellosis</b></li> </ul> <p>Leprosy</p> <ul style="list-style-type: none"> <li>* <b>Listeriosis</b></li> </ul> <p>Lyme Disease Malaria</p> <ul style="list-style-type: none"> <li>* <b>Measles</b></li> </ul>	<ul style="list-style-type: none"> <li>* <b>Meningitis, acute</b> <ol style="list-style-type: none"> <li>1. Bacterial</li> <li>2. Viral</li> <li>3. Other</li> </ol> </li> <li>* <b>Meningococcal disease, invasive</b></li> </ul> <p>Mumps Ophthalmia neonatorum Paratyphoid Fever Pertussis (Whooping Cough)</p> <ul style="list-style-type: none"> <li>* <b>Plague</b></li> <li>* <b>Poliomyelitis, acute</b></li> </ul> <p>Psittacosis/Ornithosis</p> <ul style="list-style-type: none"> <li>* <b>Q Fever</b></li> <li>* <b>Rabies</b></li> <li>* <b>Respiratory Infection Outbreaks in Institutions</b></li> </ul> <p>Rubella Rubella, congenital syndrome Salmonellosis</p> <ul style="list-style-type: none"> <li>* <b>Severe Acute Respiratory Syndrome(SARS)</b></li> <li>* <b>Shigellosis</b></li> <li>* <b>Smallpox</b></li> <li>* <b>Streptococcal Infections, Group A invasive</b></li> </ul> <p>Streptococcal Infections, Group B neonatal Streptococcus pneumoniae, invasive Syphilis Tetanus Transmissible Spongiform Encephalopathy (2003) including:       <ol style="list-style-type: none"> <li>1. Creutzfeldt-Jakob Disease, all types</li> <li>2. Gerstmann-Strassler-Schneinker Syndrome</li> <li>3. Fatal Familial Insomnia</li> <li>4. Kuru</li> </ol> </p> <p>Trichinosis Tuberculosis</p> <ul style="list-style-type: none"> <li>* <b>Tularemia</b></li> </ul> <p>Typhoid Fever</p> <ul style="list-style-type: none"> <li>* <b>Verotoxin-producing E.coli infection indicator conditions including Hemolytic Uremic Syndrome (HUS)</b></li> <li>* <b>West Nile Virus</b></li> <li>* <b>Yellow Fever</b></li> </ul> <p>Yersiniosis</p>
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- ***\*Diseases should be reported IMMEDIATELY to the Medical Officer of Health by telephone.***
- Any other diseases are to be reported by the next working day.

# VACCINE PREVENTABLE DISEASE PROGRAM: IMMUNIZATION

Children may be exposed to a variety of communicable diseases during their day care and school years. Ensuring that all children have up-to-date immunizations according to the provincial immunization schedule (see page 8) can prevent the spread of many of these diseases.

## **Role of the Thunder Bay District Health Unit**

- To promote routine immunization of all children under 18 years of age through health promotion activities in the classroom and the community.
- To monitor the immunization level of children from day care through the end of high school through the Immunization Record Information System.
- To liaise with the board of educations and day cares in a joint effort to ensure the implementation of the *Immunization of School Pupils Act* and the *Day Nurseries Act*.

## **The Vaccine Preventable Disease Program**

The Vaccine Preventable Disease Program at the Health Unit is responsible for the delivery of this program. A program staff member will be in touch with each day care and school to explain the immunization program priorities and to arrange for collaborative initiatives with personnel, students and/or parents to ensure that all children are adequately protected against vaccine preventable diseases.

# PROVINCIAL IMMUNIZATION SCHEDULE

Children attending day care and school must be immunized according to the recommended immunization schedule for their age.

AGE	ROUTINE VACCINES	OPTIONAL VACCINES				
		Meningococcal	Pneumo Conjugate	Var	Hep B	HPV
2 months	DPTP, Hib		X			
4 months	DPTP, Hib		X			
6 months	DPTP, Hib		X			
12 months (after 1 <sup>st</sup> birthday)	MMR	C				
15 months			X	X		
18 months	DPTP, Hib/MMR					
4-6 years	DPTP					
Grade 7		A, C, Y and W-135			2 doses	
Grade 8 (female students)						3 doses
14-16	dTap					

**Meningococcal A, C, Y, W-135** = provides protection against 4 strains of meningitis; one dose is provided free of charge in Grade 7

**Meningococcal C** = provides protection against the C strain of meningitis; one dose is provided free of charge at 1 year if not given in infancy

**DPTP** = diphtheria, pertussis (whooping cough), tetanus, polio

**dTap** = tetanus, diphtheria and acellular pertussis

**Hep B** = hepatitis B

**Hib** = haemophilus b influenzae (meningitis)

**HPV** = Human Papillomavirus virus

**MMR** = measles, mumps, rubella (German measles)

**Pneumo Conjugate** = protects against pneumococcal disease

**Td** = tetanus, diphtheria

**Var** = Varicella (chicken pox); if not given according to the recommended schedule (15 months), varicella can be given with the MMR, but it must be given on the same day or at least 28 days apart

When recording a child's immunization, there are acceptable variations from the above schedule. However, by 2 years of age, all children must have completed the above immunization protocol (up to and including 18 months) unless there is a valid exemption.

# COMMON CHILDHOOD INFECTIONS

Diagnosis of the following infections must be made by a physician. These guidelines are for information purposes only.

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Chickenpox</b></p> <p>Caused by: Varicella-zoster virus</p> <p>Incubation period: 2-3 weeks</p> <p>*Vaccine preventable.</p>	<p>Fever and skin rash that shows up in crops.</p> <p>Rash begins on chest, back, underarm, neck and face; changes to blisters then scabs.</p> <p>Call physician if child develops a high fever or if new spots continue to occur after 4<sup>th</sup> day.</p>	<p>Contact with discharge from nose/mouth or lesions (sores) of an infected person.</p> <p>Very contagious.</p>	<p>Usually 1-2 days before the onset of blisters or until 5 days after the first crop of blisters appears.</p>	<p>Those who are immunosuppressed or pregnant woman should be referred to family physician.</p> <p>Disinfect or discard articles soiled by nasal or throat discharge, or discharge from lesions.</p>	<p>For mild cases: until a child is well enough to participate in normal activities regardless of the state of the rash.</p> <p>Siblings may attend school.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Enteric Illness</b></p> <p>Caused by: variety of bacteria, viruses, parasites</p>	<p>Diarrhea, vomiting, nausea, cramps, fever.</p>	<p>Eating/drinking contaminated food or water.</p> <p>Also spread directly from person to person on contaminated hands or objects.</p>	<p>While symptoms persist.</p> <p>Carriers without symptoms may spread disease.</p>	<p>Hand washing by staff and children.</p> <p>Disinfect change tables after each diaper change.</p> <p>Disinfect all surfaces, toys and furniture.</p>	<p>Until symptom free for 24 hours and stool returns to normal.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<b>Fifth's Disease</b> (Slapped Cheek) Caused by: Parvovirus Incubation period: 4-20 days	Rash begins on the cheek. Appears as a "slapped cheek" followed in 1-4 days by lace-like rash on the trunk and extremities which does fade. May reoccur for 1-3 weeks on exposure to sunlight or heat.	Contact with discharge from mouth or nose of an infected person.	Greatest before onset of rash and probably not communicable after onset of rash.	Hand washing by staff and children. Avoid sharing of eating and drinking items. Those who are immunosuppressed or pregnant woman should be referred to family physician.	No exclusion necessary.	<b>No</b>
<b>Hepatitis A</b> Incubation period: Average 2-3 months Caused by: Hepatitis A virus * Hepatitis A vaccine is available for high risk groups.	Onset is usually sudden with loss of appetite, nausea, tiredness, fever and stomachache. Tea colored urine, light colored stools and jaundice (yellowing of eyes or skin) may appear. Symptoms are generally absent or much milder in children than in adults.	Ingestion of contaminated food or water. Person to person spread through contaminated hands or objects.	From 2 weeks before until 1 week after the onset of jaundice. <b>Note:</b> Many children are asymptomatic, but are capable of passing the virus to others.	Hand washing by staff and children. Disinfect diaper change table between children.	Until 1 week after the onset of symptoms.	<b>YES</b> <b>Report to the Health Unit</b>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Hepatitis B</b></p> <p>Incubation period: average 2-3 months</p> <p>Caused by: Hepatitis B virus</p> <p>* Vaccine preventable.</p>	<p>Loss of appetite, fatigue, abdominal pain, nausea, vomiting and rash.</p> <p>Jaundice (yellowing of the eyes or skin) may be present in adults, but often absent in young children.</p> <p>Symptoms vary from none at all to severe illness.</p>	<p>Blood and bodily fluids into a break of the skin.</p> <p>Spread rare in children.</p>	<p>Many weeks before onset of first symptoms and remains infectious through the acute clinical course of the disease.</p> <p>Chronic carriers are infectious for life.</p>	<p>Hand washing by staff and children.</p> <p>Beware of cuts and biting incidents.</p>	<p>No exclusion is necessary unless the child exhibits biting behavior or has open sores that cannot be covered.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Hand, Foot and Mouth Disease</b></p> <p>Incubation period: 3-5 days</p> <p>Caused by the Coxsackie virus</p>	<p>Fever, headache, sore throat and mouth, loss of appetite and lack of energy.</p> <p>Rash on palms of hands, soles of feet and inside mouth. May look like tiny red dots, blisters or ulcers. Rash may also occur on the buttocks.</p>	<p>Contact with discharge from nose or mouth or stool of an infected person.</p>	<p>During acute stages of illness and perhaps longer as virus can live in stool for several weeks.</p>	<p>Hand washing after wiping child's nose, changing diaper, etc.</p> <p>Articles soiled with discharge from nose or mouth must be disinfected.</p> <p>Control use of toys.</p>	<p>Exclude until fever is gone and child is well enough to participate in daily activities.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Influenza (Flu)</b></p> <p>Caused by: Influenza A or B virus</p> <p>Incubation period: 1-4 days</p> <p>* Influenza A and B are vaccine preventable.</p>	<p>Muscle aches, nasal congestion, sore throat, chest discomfort, cough, headache, sneezing, runny nose, fever.</p>	<p>Person to person through respiratory droplet spread (e.g. discharge from mouth or nose).</p> <p>Indirect spread through contaminated hands, objects and surfaces.</p>	<p>One day before the onset of symptoms to seven days after onset of symptoms.</p> <p>Children may be infectious for longer periods of time.</p>	<p>Hand washing by staff and children.</p> <p>Cover coughs and sneezes in the sleeve.</p> <p>Disinfect contaminated objects and surfaces.</p> <p>Encourage annual flu vaccination.</p>	<p>Exclude for three days after onset of symptoms.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Impetigo</b></p> <p>Caused by: staphylococcus or streptococci bacteria</p> <p>Incubation period: 1-10 days</p>	<p>A skin infection marked by isolated pus filled spots, which become crusted, break and release a straw colored fluid.</p> <p>Usually found around the mouth and nostrils or exposed parts of the body (e.g. arms and/or legs).</p>	<p>Contact with discharge from sores.</p>	<p>As long as pus filled lesions continue to drain.</p>	<p>Hand washing by staff and children.</p>	<p>Until 24 hours after treatment has been initiated.</p> <p>Note: Antibiotic may be used in form of an ointment or pill.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Lice</b></p> <p>Incubation period for eggs: 9-10 days</p>	<p>Itching of the scalp, back of neck or hairline.</p> <p>Look for crawling lice in the hair and eggs (nits) glued to the hair near the scalp.</p>	<p>Direct head to head contact with an infected person.</p> <p>Lice do not hop or fly, but can crawl at a rapid rate.</p>	<p>While live lice remain alive on the infested person's hair or clothing or personal items.</p> <p>If untreated, lice can live for three to four weeks in hair.</p> <p>Nymphs and adults can live up to 3 days away from the human host. While eggs can survive away from the host for up to three days, they require the higher temperature found near the scalp to hatch</p>	<p>Clean items that may have come into prolonged or close contact with the head (e.g. hats, pillowcases, brushes and combs).</p> <p>Wash items in hot water (66°C), dry in hot dryer for 15 min or store in air/water tight bag for two weeks to kill lice and nits.</p> <p>Families of children in classroom with an active case of lice should be alerted and informed about the management of head lice, and the lack of risk for serious disease.</p> <p>Excessive environmental cleaning is not warranted.</p>	<p>No need to exclude due to presence of live lice or nits.</p>	<p><b>No</b></p>
<p>For further information on head lice, including treatment information, please refer to the Canadian Paediatric Society's website:</p> <ul style="list-style-type: none"> <li>• <a href="http://www.cps.ca/english/statements/ID/rd08-06.htm">http://www.cps.ca/english/statements/ID/rd08-06.htm</a></li> </ul>						

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Measles (Red)</b></p> <p>Caused by: virus</p> <p>Incubation period: 7-18 days</p> <p>*Vaccine preventable.</p>	<p>Fever, watery eyes, runny nose and cough prior to a red blotchy rash appearing on day 3 to day 7.</p> <p>Rash usually begins on the face, spreads down the trunk and out to the extremities and lasts 4-7 days.</p>	<p>Spreads through contact with respiratory tract secretions (e.g. discharge from nose or mouth) of an infected person.</p> <p>Virus is very contagious and can remain active and contagious in the air and on infected surfaces for up to 2 hours.</p>	<p>From the onset of symptoms to 4 days after appearance of rash.</p>	<p>Ensure all children are immunized.</p> <p>Exclude all those children who are immunosuppressed and refer to family physician.</p> <p>Exclude those unimmunized for 14 days following onset of rash in last case.</p> <p>Pregnant woman or children under 1 year of age who are not yet immunized, should consult a physician within 72 hours of exposure.</p>	<p>Until 4 days after the appearance of the rash.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Meningitis: Bacterial</b></p> <p>Caused by: bacteria</p> <p>Incubation period: 2-10 days</p> <p>*Some cases are vaccine preventable.</p>	<p>Symptoms may include all or one or any combination of; fever, stiff neck, headache, vomiting, unusual sleepiness, irritability, and lack of appetite.</p> <p>Sometimes rash or seizures.</p>	<p>Contact with discharge from mouth or nose of an infected person.</p>	<p>Until 24 hours after starting effective antibiotic treatment.</p>	<p>Hand washing by staff and students.</p> <p>Discourage sharing glasses, cups and water bottles.</p> <p>Clean and disinfect all mouthed toys.</p>	<p>Until child has been treated and is well enough to participate in normal daily activities.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Meningitis: Viral</b></p> <p>Caused by any number of different viruses, many of which are associated with other diseases.</p> <p>Mosquito born viruses can cause viral meningitis</p> <p>50% of cases have no obvious cause.</p> <p>Incubation period: depends on virus, but generally symptoms appear within 1 week of exposure</p>	<p>Symptoms may include all or any combination of fever, headache, stiff neck and tiredness, rash, sore throat and vomiting.</p> <p>Illness usually last less than 10 days.</p>	<p>Person to person through fecal-oral or respiratory droplet (e.g. mouth or nose) spread.</p> <p>Can be spread by insects (mosquitoes).</p>	<p>3 days before symptoms up to 10 days after symptoms.</p>	<p>Hand washing by staff and children.</p> <p>Same as bacterial.</p> <p>Avoid mosquito bites by staying inside between dusk and dark.</p> <p>If outside during that time, wear long pants and long sleeve shirts. Use insect repellent.</p> <p>No specific treatment.</p>	<p>Until child is well enough to participate in normal daily activities</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Metapneumovirus</b></p> <p>Caused by: virus from the Paramyxoviridae family (which also includes RSV)</p> <p>Incubation period: estimated from 4-6 days</p>	<p>Upper or lower respiratory infection; cough or congestion.</p> <p>May be lethargic, irritable or poor feeding in infants.</p>	<p>Through direct or close contact with contaminated secretions and respiratory droplets.</p> <p>The virus can persist on environmental surfaces for hours and 30 minutes on the hands.</p>	<p>Before the onset of fever.</p>	<p>Hand washing after contact with nasal discharge.</p> <p>Covering cough or sneeze with a sleeve followed by hand washing.</p>	<p>No exclusion necessary.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Mononucleosis, Infectious</b> (Kissing Disease)</p> <p>Caused by: Epstein-Barr virus</p> <p>Incubation Period: 4-6 weeks</p>	<p>Fever, sore throat, swollen glands, fatigue.</p>	<p>Contact with saliva of an infected person or contact with articles soiled with saliva.</p> <p>Kissing is a means of spread among young adults.</p>	<p>Undetermined - virus excretion can occur for many months after infection.</p>	<p>Refrain from sharing beverages, utensils and any contact with an infected person's saliva.</p> <p>Hand washing by staff and children.</p>	<p>Exclude until fever is gone and child is well enough to participate in daily activities.</p> <p>Note: Fatigue may persist for many months.</p>	<p><b>No</b></p>
<p><b>Mumps</b></p> <p>Caused by: virus</p> <p>Incubation period: 12-25 days; average 18 days</p> <p>*Vaccine preventable.</p>	<p>Swollen, tender glands on one or both sides of the face. Symptoms sometimes so mild that disease is not recognized.</p>	<p>Contact with saliva of an infected person.</p>	<p>From 6 days before swelling appears until 9 days after.</p>	<p>Ensure all children and staff are vaccinated.</p> <p>Exclude un-immunized contact until 14 days after exposure.</p>	<p>Until 9 days after onset of swelling.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>
<p><b>Noro Virus</b></p> <p>Incubation period: 1-2 days</p>	<p>Nausea, vomiting, stomach cramps and diarrhea.</p>	<p>Passed in stool and vomit.</p> <p>Spread through contact with the fecally contaminated hands of ill persons or contact with contaminated objects.</p> <p>Fecal-oral route.</p>	<p>While symptoms are present and 2 days after diarrhea stopped.</p>	<p>Hand washing especially after toileting.</p> <p>Do not prepare food if symptomatic.</p> <p>Stay home if ill.</p> <p>Cook all shellfish thoroughly</p> <p>Disinfect diaper change table between children.</p>	<p>Until 2 days after onset of diarrhea.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Pink-Eye Conjunctivitis</b>            Caused by: bacteria            *may also be caused by virus            Incubation period for bacterial: 1-3 days</p>	<p>Red, watery, itching and burning eyes. Eyelids may be swollen and sensitive to light            A discharge may cause eyelids to crust over and stick together during the night.</p>	<p>Contact with discharge from the eye or discharge from mouth or nose of an infected person.            Can also be spread through indirect contact with an item contaminated with eye fluid. Can also spread if a reused tissue is touched or if the tissue touches another person's eyes.</p>	<p>During the course of active infection.</p>	<p>Hand washing by staff and children.            No sharing of towels or washcloths.            Disinfection of toys and tables.</p>	<p>Only if discharge is pus (yellow, thick) and then until the antibiotics has been taken for 1 full day.            If diagnosed as viral, child does not need to be excluded.</p>	<p><b>No</b></p>
<p><b>Respiratory Infections (colds)</b>            Caused by: variety of viruses            Incubation period: 1-3 days</p>	<p>Runny nose, sneezing, chills, tiredness that may last 2-7 days.</p>	<p>Contact with discharge from nose or mouth of an infected person.</p>	<p>24 hours before onset and 5 days after.</p>	<p>Hand washing after contact with discharge from nose or mouth.            Cover coughs and sneezes in a sleeve, followed by hand washing.</p>	<p>Until child is without fever for 24 hours and is well enough to participate in normal, daily activities.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<b>RSV (Respiratory Syncytial Virus)</b> Incubation period: 2-8 days	Upper or lower respiratory tract illness; cough and congestion. May be lethargic, irritable or poor feeding in infants.	Through direct or close contact with contaminated secretions and respiratory droplets. The virus can persist on environmental surfaces for hours and 30 minutes on the hands.	Before the onset of fever.	Hand washing after contact with nasal discharge. Covering cough or sneeze in a sleeve followed by hand washing.	No exclusion necessary.	<b>No</b>
<b>Roseola</b> Caused by: virus Incubation period: 9-10 days	Mild upper respiratory illness, followed by a high fever for up to a week. Child may be fussy or irritable with a decrease in appetite. When fever ends, a raised rash may appear on a child's trunk and spread over the body.	Through tiny drops of fluid from nose and throat of infected person.	Before the child has a fever.	Hand washing by staff and children. Cover coughs and sneezes in a sleeve, followed by hand washing.	No exclusion necessary.	<b>No</b>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Rota Virus</b></p> <p>Incubation period: 1-3 days</p> <p><b>Rotavirus is the most common cause of severe diarrhea in children 6 months to 2 years of age. Almost all children have had a rotavirus infection by the time they are 3 years of age.</b></p>	<p>Diarrhea preceded or accompanied by nausea/vomiting. Symptoms typically persist for 3-8 days.</p>	<p>Through fecal-oral route.</p> <p>Rotavirus can be found on toys and hard surfaces.</p>	<p>Before onset of diarrhea and may last for as long as 21 days after onset of symptoms.</p>	<p>Hand washing for staff and children.</p> <p>Ensure routine cleaning of all frequently touched surfaces with soap and water, followed by disinfectant.</p>	<p>While person has diarrhea.</p>	<p><b>No</b></p>
<p><b>Ringworm</b></p> <p>Caused by: fungi</p> <p>Incubation period for body: 4-10 days</p> <p>Incubation period for forscalp: 10-14 days</p>	<p>Body: Appears as flat, spreading ring-shaped lesions. Edge of the lesion may be dry and scaly or moist and crusty. As lesions spread outward, the center often becomes clear.</p> <p>Scalp: May be difficult to detect in early stages. Begins as small, scaly patch which spreads leaving scaly patches of temporary baldness.</p>	<p>Direct contact with infected person, animal or contaminated articles.</p>	<p>As long as lesions are present and viable fungus persists on contaminated materials.</p>	<p>Keep lesions dry and covered with protective dressing.</p> <p>Hand washing after contact with nasal discharge.</p>	<p>Body: Exclude until treatment has been started. No gym classes or swimming until it clears.</p> <p>Scalp: Exclude child until 24 hours after treatment has been started.</p>	<p><b>No</b></p>

Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Rubella</b> (German Measles) Caused by: virus Incubation period: 2-3 weeks *Vaccine preventable.</p>	<p>May have mild fever and cold symptoms, widespread rash. Swelling of the lymph glands behind the ears.</p>	<p>Contact with discharge from nose or mouth of an infected person.</p>	<p>From 1 week before to at least 4 days after onset of rash.</p>	<p>Ensure children and staff are immunized. Contacts who are immunosuppressed and susceptible women in early pregnancy should avoid contact with case and consult with physician. Hand washing for staff and children.</p>	<p>Exclude for 7 days after onset of the rash. Exclude unimmunized contacts for 21 days after exposure.</p>	<p><b>YES</b> <b>Report to the Health Unit</b></p>
<p><b>Scabies</b> Caused by: mites which burrow under the skin Incubation period: 2-6 weeks</p>	<p>Seen as wavy, threadlike, very small, slightly elevated grayish white burrows. Most frequently found between the fingers, on the elbow, hands and wrists, but can be found elsewhere on the body. Intense itching which may be severe especially at night.</p>	<p>Direct contact with infected person or articles immediately contaminated beforehand.</p>	<p>Until mites are destroyed by treatment. A second treatment one week after the first course is often needed.</p>	<p>Wash the infected child's bed linen and dress-up clothing in hot water, and dry in clothes dryer at the hottest setting. Place in a sealed bag and send the infected child's special blanket and clothes home with the parents to be washed the same way.</p>	<p>Until 24 hours after treatment begins. Note: It is important that household contacts also be treated, even if they are asymptomatic.</p>	<p><b>No</b></p>



Disease	Signs/Symptoms	How it Spreads	Contagious Period	Prevention and Control	Exclusion Guidelines	Report
<p><b>Whooping Cough</b> (Pertussis)</p> <p>Caused by: bacteria</p> <p>Incubation period: 6-20 days</p> <p>*Vaccine preventable.</p> <p><b>Note:</b> <b>Pertussis is among the most contagious of diseases.</b></p>	<p>Initial signs are coughing and sneezing followed 1-2 weeks later by breathing difficulties including a series of short convulsive-like coughs and a high pitched gasp of air called a whoop.</p>	<p>Contact with discharge from mouth or nose of an infected person or articles soiled with these secretions.</p>	<p>Very infectious in early stages.</p> <p>Little risk 3 weeks after onset of cough even if it persists.</p> <p>If treated with erythromycin (antibiotic) no longer contagious after 5 days of therapy.</p>	<p>Refer unimmunized contacts (e.g. family members) to doctor as soon as possible.</p> <p>Exposed children under 1 year are at particular risk and should receive antibiotics regardless of immunization status.</p> <p>Observe for signs and symptoms of disease (cough) for 14 days from last contact.</p>	<p>Until 5 days after treatment with erythromycin (antibiotic) begins and feeling well.</p> <p>Otherwise, wait 3 weeks from date of onset if no antibiotics are given.</p>	<p><b>YES</b></p> <p><b>Report to the Health Unit</b></p>

# HAND WASHING

Hand washing, when done correctly, is the single most effective way to prevent the spread of communicable diseases. Good hand washing technique is easy to learn and can significantly reduce the spread of infectious diseases among both children and adults.

It is important to encourage and help children to wash hands before eating, after playing outdoors or playing with pets, after using the bathroom, and after coughing or sneezing/blowing their noses. Don't assume that children know how to wash their hands properly. Supervision is an essential element in forming good hand washing habits in children. Children learn by example! Let them observe good hand washing technique from the adults who care for them.

The following recommended hand washing procedure should be followed:

- Wet hands with warm running water.
- Apply liquid soap from dispenser to the hands.
- Lather well using lots of friction for at least 15 seconds.
- Rinse well under warm water.
- Use paper towels to dry hands.
- Turn the taps off with paper towel (taps may be contaminated).
- Throw away used paper towels into lined, covered trash container.

## **Common mistakes that MUST be avoided**

1. Do not use a single, damp cloth to wash a group of children's hands.
2. Do not use a standing basin or bucket to wash or rinse hands.
3. Do not use a common cloth or towel to dry hands.

## **Use of Alcohol-Based Hand Rubs (e.g. hand sanitizers)**

Alcohol-based hand rubs (e.g. hand sanitizers) are excellent hand antiseptics, provided they contain at least 60% alcohol. They are widely used in situations where running water is not available and should only be used if the hands are not visibly dirty.

They are safe for use on children but it is important to let children know that they should not be swallowed. Supervision is important. It is also important to store the product safely so children have no access without supervision. After the alcohol is rubbed in and evaporates, it is safe for children to touch their mouth or eyes.

## **Resources to Teach Correct Technique**

Posters are available as reminders to wash hands. In addition, the Health Unit has compiled a set of resources that can be used to teach children the correct hand washing procedure (e.g. DVDs, books, activity pages, fact sheets), as well as resources for parents. Most of the resources are downloadable from the website at [tbdhu.com/id/cleanhands.htm](http://tbdhu.com/id/cleanhands.htm)

You can also call 625-8318, 1-888-294-6630, ext. 8318 or your nearest branch office (Geraldton, Nipigon, Schreiber, Marathon and Manitouwadge) for more information on the resources available.

# RESPIRATORY ETIQUETTE

Besides regular hand washing, another important way to prevent the spread of illness-causing germs is by following proper respiratory etiquette; covering coughs and sneezes the right way.

In the past, we taught children to cover their coughs and sneezes by using their hands. But, if hands are not cleaned right away, the germs are transferred to other surfaces and could be passed on to continue the cold and flu cycle.

The correct way to prevent the spread of germs is by using the upper sleeve to cover coughs and sneezes.

The following recommended respiratory etiquette procedure should be followed:

- Cough or sneeze into the upper sleeve, not the hands.
- Clean hands right away by washing with soap and warm water or by using an alcohol-based hand sanitizer.

Staff can help the children practice the right technique and offer gentle reminders if needed. By being a role model, staff can reinforce using the upper sleeve to cover coughs and sneezes.

## **Resources to Teach Correct Technique**

Additional resources are available to supplement the hand washing resources, including posters and fact sheets for staff and parents.

# **GUIDELINES FOR HANDLING BLOOD OR BODY FLUIDS (URINE, FECES, VOMIT AND BLOOD)**

Avoid direct contact with body fluids, as they all have the potential to spread germs. Germs in vomit and diarrhea may travel through the air, so it is important to clean up quickly.

## **Spill Kit**

A spill kit should be prepared ahead of time and should include the following items:

- Gloves (disposable)
- Paper towel
- Soap and detergent
- Plastic bags
- Disinfectant

## **Procedure**

The following procedure is recommended:

1. Wear disposable latex or vinyl gloves. Reusable rubber gloves are acceptable as long as they are cleaned and sanitized after each use.
2. Remove all visible material, working from the least to the most soiled areas, using paper towel or single-cloth. If you are cleaning up feces or vomit, be careful not to agitate the material so that virus particles do not become airborne. Put all material in a water-proof bag for disposal.
3. Clean the area using soap or detergent, again working from the least to the most soiled areas.
4. Sanitize the area using an approved broad-spectrum disinfectant following the manufacture's directions for procedures and length of time to leave on surface.
5. Discard gloves and other cleaning articles in a plastic bag.
6. Wash hands after removing the gloves.
7. Wash the non-disposable cleaning equipment (mops/buckets) thoroughly with soap and water and then rinse with an approved disinfectant.

## **More information**

For further information on dealing with blood or bodily fluids, please contact the Infectious Disease program at 625-8318 or toll free 1-88-294-6630, ext. 8318.

# INFECTIOUS DISEASE OUTBREAKS

## **What is an Outbreak?**

An outbreak may exist when a greater than expected number of children have similar symptoms within a designated period of time (e.g. vomiting, diarrhea, rash, respiratory symptoms).

## **Reporting Outbreaks**

If there are significantly more cases of illness among the children and staff than normally expected, notify the Infectious Disease program at 625-8318 or toll-free at 1-888-294-6630, ext. 8318.

The Health Unit will put into effect the appropriate investigative response as indicated by the circumstances.

## REFERENCES

1. Heymann, David L. (2008), *Control of Communicable Diseases Manual, 19<sup>th</sup> Edition*, American Public Health Association
2. Report of the Committee on Infectious Diseases (2009), *The Red Book, 28<sup>th</sup> Edition*, American Academy of Pediatrics
3. Canadian Pediatric Society (2008), *Well Beings, 3rd Edition*, Creative Premises Limited
4. Canadian Immunization Guide, 7<sup>th</sup> Edition, 2006
5. Publicly Funded Immunization Schedules for Ontario