

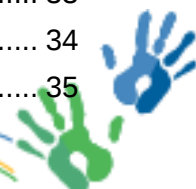
Quick Guide to Common Childhood Diseases



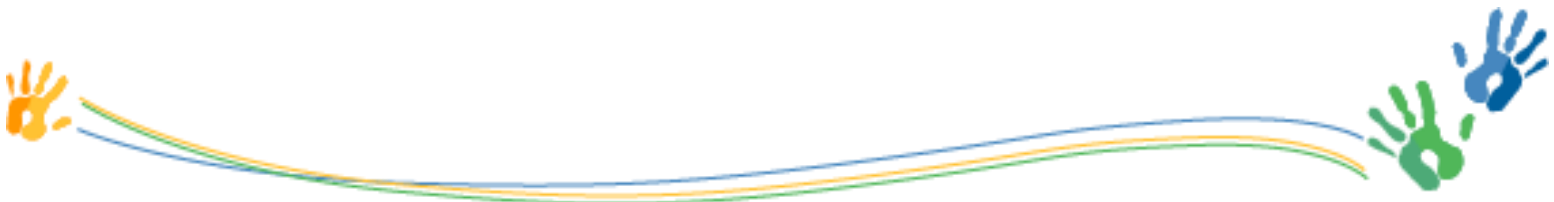
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Table of Contents

How Are Infections Spread?	4
How Are Infestations Spread?.....	5
Stop the Spread of Infections and Infestations	5
Coughing and Sneezing Etiquette	6
Food Safety	6
Hand Washing	7
Antibiotics	9
Campylobacteriosis.....	10
Chickenpox (Varicella)	11
Cold Sores (Herpes simplex)	12
Croup.....	13
Cryptosporidiosis	14
<i>Escherichia coli</i> (<i>E. coli</i>)	15
Fifth Disease.....	16
Giardiasis (Beaver Fever)	17
<i>Haemophilus influenzae</i> type b (Hib).....	18
Hand, Foot and Mouth Disease.....	19
Head Lice	20
Hepatitis A	21
Impetigo.....	22
Influenza.....	23
Measles	24
Meningitis	25
Meningococcal Meningitis.....	26
Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA)	27
Molluscum Contagiosum.....	28
Mononucleosis (Mono).....	29
Mumps.....	30
Norovirus	31
Pertussis (Whooping Cough)	32
Pink Eye (Conjunctivitis)	33
Pinworms.....	34
Respiratory Syncytial Virus (RSV).....	35



Ringworm	36
Roseola	37
Rotavirus	38
Rubella (German Measles)	39
Salmonellosis.....	40
Scabies.....	41
Shigellosis.....	42
Shingles (Herpes Zoster)	43
Streptococcal Infections: Scarlet Fever and Strep Throat.....	44
Swimmer's Itch	45
Resources.....	46
References	47



Introduction

The purpose of *A Quick Guide to Common Childhood Diseases* is to provide general information about communicable diseases commonly experienced by young children. It is a quick reference intended to assist care providers with identifying common childhood diseases so that actions can be taken to decrease the spread of the illness or infestation to others.

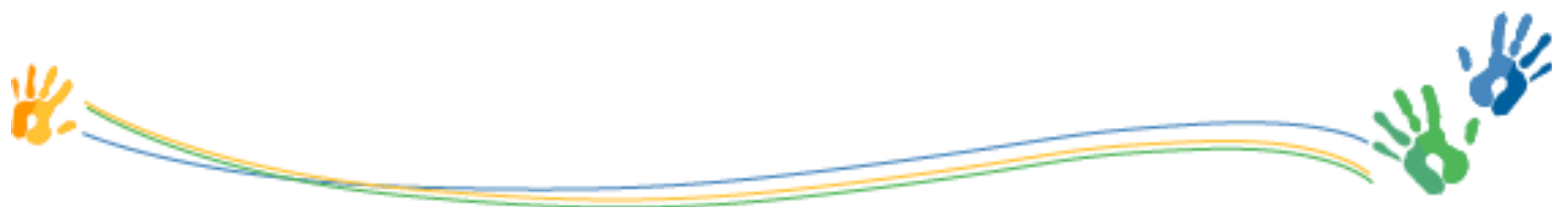
Parents and caregivers who would like more information regarding the illnesses and infestations described in this guide or information on how to care for their sick child can refer to the [Resources](#) section guide.

This guide is for people who care for young children. This includes people who work in child care centres, early learning centres, preschools, schools, summer camps and anywhere else that groups of young children spend time together. When children work and play together in groups, there is an opportunity for the spread of a number of common childhood diseases that can be passed from one child to another. Early recognition of an illness or infestation and prompt action and treatment can significantly reduce the spread within a group setting.

The diseases and infestations described in this guide do not only affect children. Adults can also be affected and may develop symptoms and/or unknowingly spread an illness to a child.

Each infectious disease and infestation in this guide is described according to:

- ***What is it?***
 - Basic facts about the infectious disease or infestation
- ***What are the signs and symptoms?***
 - A list of some of the signs and symptoms (not every child will have every symptom of the illness)
- ***How is it spread?***
 - A description of how the illness or infestation is spread
- ***Incubation Period***
 - The length of time from when a child is first exposed to the illness or infestation to when the first symptoms appear
- ***When is the person contagious?***
 - The time period during which an infected child is able to spread the illness or infestation to others
- ***How to prevent the spread of the illness or infestation to other children***
 - Information regarding whether or not the child needs to be excluded from the school or child care centre
 - Strategies to decrease the spread of the illness or infestation within the group setting.



How Are Infections Spread?

Respiratory Infections: Many of the infections in this guide are spread by the respiratory system (nose, throat and lungs). They are spread through direct and indirect contact with the nose and throat secretions of an infected person. This can happen when:

- An infected person coughs or sneezes without a tissue to cover their nose and mouth. Tiny droplets containing the virus or bacteria travel through the air and can infect a person who is close by (less than a meter away).
- An infected person may have the virus or bacteria on their hands after coughing or sneezing. If they touch another person's hand or an object, the virus or bacteria may be left behind. The virus or bacteria can infect the next person when that person touches their eyes, nose or mouth. Some viruses and bacteria can live on objects like doorknobs, faucets, telephones and toys for many hours.
- People working with children assist them with using or disposing of tissues. When the tissue is contaminated with the nose and throat secretions of an infected child, the virus or bacteria can spread to the hands of the staff member when they touch the tissue.

Gastrointestinal Infections: Several of the infections in this guide affect the gastrointestinal system (stomach and intestines). The bacteria or virus is often found in contaminated food or water but can be spread from one person to another, especially in a child care centre where children are in diapers. These viruses and bacteria are primarily spread when:

- Contaminated food is not cooked or cleaned properly.
- Contaminated water is not treated properly.
- There is direct contact with the stool (feces) of an infected person. This might happen when a caregiver changes a child's diaper or assists a child with toileting. Even a tiny amount of stool on a caregiver's hand may contain virus or bacteria that can infect them if they touch their mouth or prepare food before washing their hands.
- There is indirect contact with infected stool. This might happen when a person with the virus or bacteria on their hands touches an object (e.g., faucet, light switch, doorknob or toy). The virus or bacteria can live on the object for long periods of time and be spread to anyone who touches the object.



How Are Infestations Spread?

Head lice are an infestation, not an infection. Head lice do not cause illness.

Ringworm, scabies and pinworms are also infestations.

Head lice, ringworm, scabies and pinworms are spread by direct or indirect contact with a person who has them when:

- People are very close together and skin or hair is touching.
- A person touches the affected area and then touches the hands or skin of another person.
- People share personal items including combs, hairbrushes, hats, helmets, headphones, towels, washcloths and clothing.

Stop the Spread of Infections and Infestations

To stop the spread of infections and infestations personal items such as hairbrushes, hats, toothbrushes, washcloths, towels, sippy cups or bottles should not be shared.

Wear disposable gloves anytime your hands may come into contact with blood or body fluids. This is especially important if you have a cut or open sore on your hands. For added protection, wash your hands after removing and disposing of the gloves.

Use household rubber gloves when cleaning or sanitizing.

Dispose of articles soiled with discharge from the nose and/or mouth, vomit or feces into a garbage bin, ideally with a pop-up lid. The bin should be lined with a disposable plastic bag to be tied and thrown out with the household/child care centre garbage.

Disinfect surfaces using a solution of household bleach (containing 5.25% sodium hypochlorite) diluted with water. A dilution of 1:100 or 1:50 is recommended for routine disinfection of surfaces and objects. Bleach solutions lose potency when stored so they should be prepared fresh daily.

- 1:100 is 1 part bleach to 99 parts water (5 mL of bleach to 495 mL of water)
- 1:50 is 1 part bleach to 49 parts water (10 mL of bleach to 490 mL of water)



A 1:10 dilution of bleach is recommended for cleaning up spills of blood or body fluids.

- Mix 1 part bleach with 9 parts water (5 mL of bleach to 45 mL of water).

Organic material such as blood or stool inactivates bleach. A surface visibly contaminated with blood or stool must be cleaned with water and detergent before being disinfected.

Clean and disinfect countertops, toys and diaper changing areas more frequently when a child with diarrhea is present.

For more information see:

[HealthLink BC File #97 – Contact with Blood or Body Fluids: Protecting Against Infection](#)

Coughing and Sneezing Etiquette

Cover your mouth and nose with a tissue when you cough or sneeze. If you don't have a tissue, cough or sneeze into your shirt sleeve, instead of your hands. By not coughing or sneezing into your hands you decrease the spread of disease through contaminated hands. Discard used tissues into a lined garbage bin and immediately wash your hands.

Teach children to cough or sneeze into a tissue or into their shirt sleeve instead of sneezing or coughing into their hands. Teach children to discard used tissues into a garbage bin and to wash their hands after coughing or sneezing.

Food Safety

To help prevent foodborne illness:

- Wash hands before food preparation
- Cook meat, poultry and seafood well
- Avoid drinking or serving unpasteurized milk and juice
- Wash all fruits and vegetables thoroughly before eating or serving
- Keep uncooked meat, poultry and seafood away from fruits and vegetables and other ready-to-eat foods
- Cover foods and store at recommended temperatures for recommended times.

Detailed information on proper food handling and food safety can be found in the HealthLink BC files listed below.

For more information see:

[HealthLink BC File #59a – Food Safety: Easy Ways to Make Food Safer](#)

[HealthLink BC File #59b – Food Safety for Fresh Fruits and Vegetables](#)

[HealthLink BC File #59d – Food Safety in Child Care Facilities](#)

[HealthLink BC File #72 – Unpasteurized Fruit/Vegetable Juices and Ciders: A Potential Health Risk](#)

[HealthLink BC File #03 – Pasteurized and Raw Milk](#)



Hand Washing

Hand washing is the best way to stop the spread of infections. Frequent hand washing has been shown to significantly decrease the incidence of colds, influenza and other infections. Young children should be supervised when washing their hands.

Use plain soap to wash hands. The addition of antibacterial products to soap does not improve your health and it can negatively affect you and the environment over time. The antibacterial products in soap can lead to an increase in antibiotic resistant organisms (for more information see page 9 "[Antibiotic Resistance](#)").

When to Wash Your Hands:

- Before preparing food
- Before and after eating or helping a child eat
- After using the washroom or helping a child use the washroom
- Before and after changing diapers
- After sneezing or coughing
- After blowing your nose or wiping a child's nose
- Before performing first aid or giving a child medicine
- After handling animals or animal waste
- After cleaning or handling garbage
- Before and after playing at the water table
- After playing outside or in the sandbox
- After playing with toys shared with other children

How to Wash your Hands:

- Wet your hands
- Apply soap
- Wash all parts of hands for at least 20 seconds
- Rinse your hands
- Dry your hands with a paper towel
- Turn off the tap with a paper towel

Although soap and water are the preferred method of hand hygiene, alcohol based hand rubs can be used if soap and water are not available. Alcohol based hand rubs should be at least 60% alcohol and do not need the addition of antimicrobial agents such as triclosan. When cleaning hands with an alcohol based hand rub, use enough hand rub to keep the hands wet for 15-30 seconds. Spread the hand rub to all areas of the hands, fingers and wrists until your hands are dry. Follow the directions on the bottle for additional information. If hands are visibly dirty, hand rubs are not an appropriate hand cleaner; soap and water are necessary to properly clean hands. Ensure that alcohol based hand rubs are kept away from heat sources and out of reach of children as they are flammable and poisonous if ingested.

For more information see:

Do Bugs Need Drugs? <http://www.dobugsneeddrugs.org/>

[HealthLink BC File #85 – Hand Washing: Help Stop the Spread of Germs](#)



HOW TO WASH YOUR HANDS



1 WET YOUR HANDS



2 APPLY SOAP



3 RUB HANDS TOGETHER



4 RINSE YOUR HANDS



5 DRY YOUR HANDS



6 TURN OFF TAP WITH PAPER TOWEL

LEAVE THE WASHROOM NEAT AND TIDY

bugs
drugs



Antibiotics

What are antibiotics?

Antibiotics are medicines used to kill bacteria. They are not useful for viral infections or allergies and they do not help with illnesses such as the common cold or influenza.

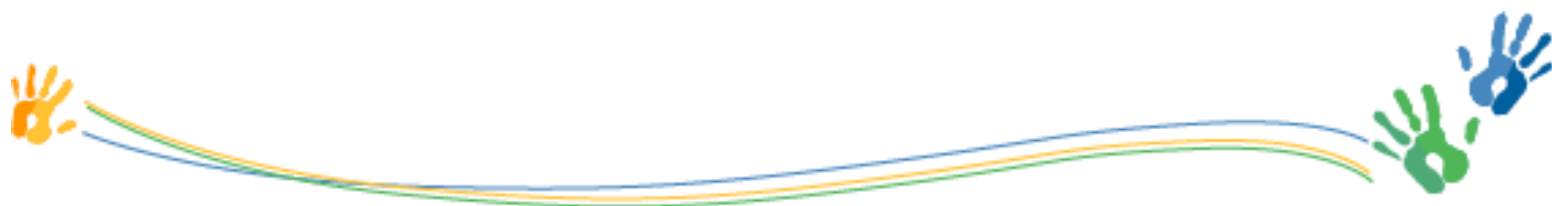
Cautions about antibiotics

Side effects: All medicines can cause side effects. Some people get diarrhea, nausea or a yeast infection when they take antibiotics. If you are having a problem with side effects, talk to your doctor, nurse practitioner or pharmacist.

Allergic reactions: All medicines can cause a reaction. This can sometimes be an emergency. Talk to your doctor, nurse practitioner or pharmacist about any allergies or past allergic reactions.

Antibiotic resistance

Frequent or inappropriate use of antibiotics can cause antibiotic resistance. Antibiotic resistance is when bacteria change over time to adapt and survive exposure to a medication that is used to kill or control its growth. When there is antibiotic resistance, a medication may no longer be effective at treating the infection. It is important to only take antibiotics for bacterial infections as directed by a doctor or nurse practitioner to avoid the effects of antibiotic resistance for your health and the health of communities.

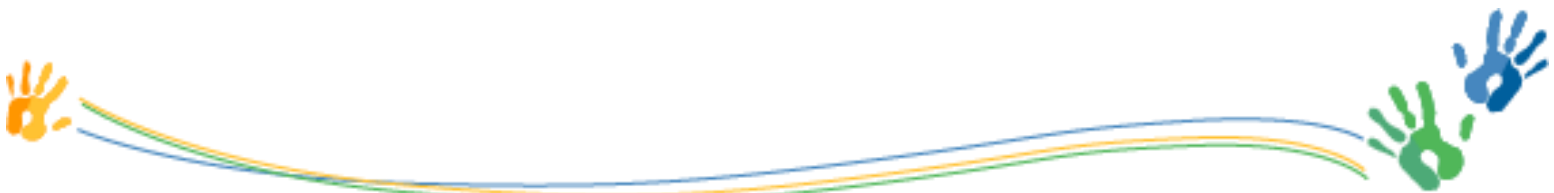


Campylobacteriosis

What is it?	<i>Campylobacter</i> are bacteria that infect the intestinal tract. They are a common cause of diarrhea. When a person infected with the bacteria gets ill they have campylobacteriosis. The illness usually lasts less than 1 week. <i>Campylobacter</i> infection is diagnosed by testing a stool sample. <i>Campylobacter</i> bacteria are found in the intestines of many animals including chickens, cows, pigs and sheep. When animals are slaughtered for food the bacteria from their intestines may contaminate the meat.
What are the signs and symptoms?	Signs and symptoms of campylobacteriosis may include: ➤ Stomach pain ➤ Mild to severe diarrhea which may be bloody ➤ Nausea and vomiting ➤ Fever
How is it spread?	Campylobacteriosis is caused when a person ingests <i>Campylobacter</i> bacteria. This can occur by: ➤ Eating undercooked poultry, meat or other foods that have been contaminated by these during food preparation ➤ Drinking water or unpasteurized milk or juice contaminated with the bacteria ➤ Touching the feces of infected people, pets (especially cats and dogs that may have fecal matter on their fur), birds and farm animals <i>Campylobacter</i> bacteria are not usually spread from one person to another unless a person is producing large amounts of diarrhea.
Incubation period	Usually 2–5 days (range is 1–10 days)
When is the person contagious?	During the course of infection. A person may continue to pass the bacteria in their stool for several weeks after the illness.
How to prevent the spread of the illness to other children	A child with campylobacteriosis should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting, or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care. Ensure children wash their hands carefully after handling pets.

For more information see:

[HealthLink BC File #58 – Campylobacter Infection](#)



Chickenpox (Varicella)

What is it?	Chickenpox is caused by the varicella zoster virus. It is usually a mild illness in children but can be more serious in infants, teenagers, adults, pregnant women and those with weakened immune systems. For some people the virus can become active again later in life and cause shingles (for more information see Shingles). Chicken pox can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of chickenpox may include: ➤ Fever ➤ Tiredness ➤ Headache ➤ Loss of appetite ➤ A rash that develops a few days after the first symptoms. It usually first appears on the face and scalp and spreads down the body to the arms and legs. The rash begins as small, red, flat spots that develop into itchy fluid-filled blisters. After the blisters break, open sores will crust over to form dry brown scabs. Chickenpox usually lasts for about 10 days.
How is it spread?	Chickenpox is spread by: ➤ Breathing in air contaminated with the virus when an infected person has coughed or sneezed ➤ Contact with an infected person's saliva through the sharing of foods or drinks or kissing ➤ Contact with fluid from chickenpox or shingles blisters A pregnant woman with chickenpox can pass it to her baby during pregnancy
Incubation period	Usually 10–21 days following contact with an infected person.
When is the person contagious?	From 1–2 days before the rash appears and until all of the blisters have crusted over (which is usually 5 days after the first blisters appear).
How to prevent the spread of the illness to other children	Inform the school/child care centre administrator and parents when a case of chickenpox occurs in a school or child care centre. Public health can be contacted to support the development of protocols for notification of parents/guardians when such cases arise. Inform staff members who are pregnant or have a weakened immune system.

For more information see:

[HealthLink BC File #44a – Facts About Chickenpox](#)

[HealthLink BC File #44b – Chickenpox \(Varicella\) Vaccine](#)

[HealthLink BC File #14e – Measles, Mumps, Rubella and Varicella \(MMRV\) Vaccine](#)



Cold Sores (Herpes simplex)

What is it?	Cold sores (small blisters) on the mouth are usually caused by herpes simplex virus type 1. During the first outbreak of cold sores, the sores may spread to any part of the mouth. After a person is infected, the virus stays in their body and may cause cold sores to return throughout their lifetime. Recurrent infection on the lips is usually less serious than the first infection.
What are the signs and symptoms?	Signs and symptoms of cold sores may include: ➤ Itching, burning or tingling around the mouth and lips ➤ Superficial clear blisters with a red base around the mouth and lips. The blisters crust over and heal within a few days. ➤ A sore mouth that makes eating, drinking and sleeping uncomfortable. ➤ Fever ➤ Sore throat ➤ Swollen lymph glands in the neck ➤ Drooling in small children
How is it spread?	Cold sores are spread by contact with secretions from the throat and mouth of an infected person through: ➤ Kissing ➤ Sharing eating utensils, drinking cups and toys that are put in the mouth ➤ Touching the cold sore directly A person infected with the herpes simplex virus can spread it to others even if there are no blisters present.
Incubation period	Usually 2–12 days following contact with an infected person.
When is the person contagious?	When the cold sore is open
How to prevent the spread of the illness to other children	A child with cold sores should be excluded from school or a child care centre if it is their first attack with a cold sore and it causes drooling from the mouth or they have a weeping or open cold sore. They can return to school or a day care centre when the cold sore is crusted over. Teach children not to touch the sores and to wash their hands frequently. Ensure that a child with cold sores does not share toys that they have put in their mouth with other children. Ensure children do not kiss each other when they have cold sores or uncontrollable drooling. Avoid kissing a child or adult with cold sores. Keep children with cold sores away from newborn babies, children with eczema or severe burns and people with weakened immune systems.

For more information see:

[HealthLink BC Health Topics – Cold Sores](#)



Croup

What is it?	Croup is an infection of the upper airway with a virus. The infection causes the lining of the throat and larynx (voice box) to become red and swollen. Croup usually occurs in children under 5 years of age. When older children are infected the illness is called laryngitis. Croup often occurs a few days after the start of a cold and is caused by the same viruses that cause the common cold. If a child with croup is having difficulty breathing, try: ➤ Warm mist – run a warm shower in a bathroom with the door closed. Sit in the bathroom with the child while the child breathes in the mist. ➤ If it is cold outside, bundle the child up and take him or her outside. The cold air may help the child's breathing and cough. ➤ Try to keep the child calm (crying will make the symptoms worse). ➤ Suggest that the parents take the child home or for medical treatment.
What are the signs and symptoms?	Signs and symptoms of croup may include: ➤ Cold-like symptoms that develop into a cough and fever ➤ Red swollen lining of the throat and larynx ➤ Raspy, hoarse voice ➤ Loud, barking cough ➤ High pitched noise when breathing in ➤ Tiredness Symptoms of croup are often worse at night. Any activity that makes a child with croup breathe faster (e.g., crying) could make them sound worse.
How is it spread?	Croup is spread by: ➤ Breathing in air contaminated with the virus after an infected child has coughed or sneezed ➤ Touching the hands or nose and throat secretions of an infected child ➤ Touching an object that has been contaminated with the virus
Incubation period	Usually 1–10 days, but depends on the virus causing the infection.
When is the person contagious?	From shortly before symptoms start until the end of active disease.
How to prevent the spread of the illness to other children	For cases of mild croup, a child may go to school or a child care centre if they feel well enough to attend.

For more information see:

[HealthLink BC Health Topics – Croup](#)



Cryptosporidiosis

What is it?	<i>Cryptosporidium</i> is a parasite that lives in the intestines of infected humans and animals. It is passed in the stool of an infected person or animal. <i>Cryptosporidium</i> parasites can survive for long periods of time (2–6 months) outside the body and are resistant to chlorine disinfection. A person infected with <i>Cryptosporidium</i> has cryptosporidiosis.
What are the signs and symptoms?	Signs and symptoms of cryptosporidiosis may include: ➤ Frequent watery diarrhea ➤ Stomach cramps ➤ Nausea and vomiting and lack of appetite in children ➤ Mild fever ➤ Dehydration Symptoms can come and go for up to 30 days but usually last 1–2 weeks. A person infected with <i>Cryptosporidium</i> may have no symptoms.
How is it spread?	Cryptosporidiosis is caused when a person ingests the parasite. This can occur by: ➤ Swallowing contaminated water in lakes, rivers, ponds or swimming pools ➤ Eating raw or undercooked food that is contaminated ➤ Touching objects or surfaces (e.g., toys, bathroom fixtures such as taps and light switches, changing tables or diaper pails) contaminated with stool from an infected person ➤ Touching the feces of pets or farm animals The spread of <i>Cryptosporidium</i> is highest among children who are not yet toilet trained and their caregivers.
Incubation period	Usually 2–10 days (average is 7 days)
When is the person contagious?	The parasites are shed in the stool as soon as symptoms begin. They continue to be found in stool for several weeks after recovery from the illness.
How to prevent the spread of the illness to other children	A child with cryptosporidiosis should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care. Wash toys and surfaces with a 5% ammonia solution. A bleach solution is not effective against <i>Cryptosporidium</i>. Ensure children wash their hands after petting an animal.

For more information see:

[HealthLink BC File #48 – Cryptosporidium Infection](#)



Escherichia coli (E. coli)

What is it?	There are many strains of <i>E. coli</i> bacteria and most of them are harmless. Others cause diarrhea when a toxin is produced by the bacteria. Most people with <i>E. coli</i> infections recover completely within 5-10 days. Very young children and the elderly are more likely to develop severe illness and hemolytic uremic syndrome (HUS). HUS is an acute disease characterized by anemia, kidney failure and a low platelet count. Recovery is usually spontaneous but a child may need to be hospitalized and require dialysis during acute illness. About 5% of people who develop HUS will die. Children less than 5 years of age are most likely to develop HUS.
What are the signs and symptoms?	Signs and symptoms of <i>E. coli</i> infection may include: ➤ Loose, watery diarrhea that may become bloody ➤ Abdominal cramps ➤ Vomiting ➤ Mild fever (usually less than 38.5°C) Symptoms of HUS may include: ➤ Decreased urine output ➤ Fatigue ➤ Pale skin
How is it spread?	<i>E. coli</i> are spread when a person ingests human or animal feces. This can occur by: ➤ Eating raw or undercooked meat, especially ground meat such as hamburger ➤ Eating raw fruits and vegetables that are contaminated with the bacteria ➤ Drinking unpasteurized milk, juice or cider ➤ Touching objects or surfaces (e.g., toys, bathroom fixtures such as taps and light switches, changing tables or diapers pails) contaminated with stool from an infected person
Incubation period	Usually 3–4 days (range is 2–10 days)
When is the person contagious?	Usually for the duration of diarrhea (1 week or less for adults). Young children may continue to shed the bacteria in their stool for up to 3 weeks.
How to prevent the spread of the illness to other children	A child with an <i>E. coli</i> infection should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care.

For more information see:

[HealthLink BC File #02 – *E. coli* Infection](#)



Fifth Disease	
What is it?	Fifth disease is an infection of the airways and lungs caused by a virus called human parvovirus B19. Fifth disease is sometimes called “slapped cheek” disease because of the appearance of a red rash on the face.
What are the signs and symptoms?	Signs and symptoms of fifth disease may include: ➤ Flu-like symptoms (e.g., fever, rash, cough or runny nose) may be present about 7 days before the onset of a rash ➤ A raised, red rash that first appears on a child’s cheeks ➤ A red, spotty lace-like rash may appear on the arms, chest, back and thighs ➤ After the rash fades, it may continue to reappear for 1-3 weeks when a child is exposed to sunlight or heat (e.g., bathing) More than 50% of adults have had fifth disease as a child and therefore they can’t get it again. Adults, especially women, with fifth disease may experience joint pain. About 25% of people with fifth disease have no symptoms.
How is it spread?	Fifth disease is spread by: ➤ Breathing in air contaminated with the virus after an infected person has coughed or sneezed ➤ Touching the hands of someone who is infected with the virus and in the contagious period ➤ Touching objects or surfaces contaminated with the virus Fifth disease can be passed from a pregnant woman to her unborn baby. This could result in the baby having severe anemia or in a miscarriage or stillbirth, although this is rare.
Incubation period	Usually 4–20 days following contact with an infected person.
When is the person contagious?	Usually for 7–10 days before onset of the rash. Once the rash appears, the child can no longer spread fifth disease to others.
How to prevent the spread of the illness to other children	A child with fifth disease may go to school or a child care centre if they feel well enough to attend. Pregnant women who are contacts of an infected child should be encouraged to contact their health care provider to determine whether or not they are immune to fifth disease.

For more information see:

[HealthLink BC File #54 – Fifth Disease Parvovirus Infection](#)



Giardiasis (Beaver Fever)

What is it?	<i>Giardia</i> is a parasite that infects the intestines of humans and animals. Once a person or animal is infected with <i>Giardia</i>, the parasite lives in the intestine and is passed in the stool. The parasite can live for long periods of time outside the body. A person infected with <i>Giardia</i> has giardiasis (sometimes referred to as Beaver Fever).
What are the signs and symptoms?	Signs and symptoms of giardiasis may include: ➤ Diarrhea ➤ Frequent loose and pale greasy stools ➤ Stomach cramps ➤ Bloating and gas ➤ Nausea ➤ Weight loss ➤ Fatigue Sometimes a person with giardiasis has no symptoms.
How is it spread?	Giardiasis is caused when a person ingests the parasite. This can occur by: ➤ Drinking contaminated water ➤ Eating raw or undercooked food that is contaminated with <i>Giardia</i> ➤ Swallowing contaminated water in lakes, rivers, ponds or swimming pools ➤ Contact with infected stool (e.g., when changing a diaper or assisting a child with toileting) ➤ Touching objects or surfaces (e.g., toys, bathroom fixtures such as taps and light switches, changing tables or diaper pails) contaminated with stool from an infected person A person who is not treated with medication may release <i>Giardia</i> parasites in their stool for several months after they recover from the illness.
Incubation period	Usually 7–10 days (range is 3–25 days).
When is the person contagious?	For the entire period of infection which can often be months.
How to prevent the spread of the illness to other children	A child with giardiasis should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care.

For more information see:

[HealthLink BC File #10 – Giardia Infection](#)



***Haemophilus influenzae* type b (Hib)**

What is it?	<i>Haemophilus influenzae</i> type b (Hib) was the most common cause of bacterial meningitis (an infection of the lining that covers the brain and spinal cord) in children younger than 5 years of age before the introduction of Hib vaccines. Since then the incidence of Hib disease has decreased significantly. The majority of cases in children now occur in unimmunized children or in children too young to have completed their primary series of vaccines at 2, 4 and 6 months of age. Hib bacteria can also cause infections of the epiglottitis, bloodstream, joints, skin and lungs. Other types of <i>H. influenzae</i> can cause ear infections, sinusitis, bronchitis and other respiratory illnesses.
What are the signs and symptoms?	Signs and symptoms of Hib meningitis usually occur suddenly and may include: ➤ Fever ➤ Headache ➤ Vomiting ➤ Tiredness ➤ Bulging fontanelle (soft spot of the skull) in infants ➤ Stiff neck and back in older children
How is it spread?	Hib is spread by: ➤ Breathing in air contaminated with the bacteria after an infected person has coughed or sneezed ➤ Close face-to-face contact ➤ Kissing or sharing food, utensils, drinks, soothers, bottles or toys used by other children
Incubation period	The length of the incubation period is not known but is thought to be short (2–4 days).
When is the person contagious?	As long as the bacteria are present, which may be a long period if the individual is not treated with antibiotics. A child infected with Hib is no longer contagious after receiving antibiotics for 24–48 hours.
How to prevent the spread of the illness to other children	Contact local public health. A child with Hib should be excluded from school or a child care centre until 24–48 hours after starting antibiotics. Antibiotics may be recommended for contacts of an infected child.

For more information see:

[HealthLink BC File #105 –Diphtheria, Tetanus, Pertussis, Hepatitis B, Polio, and *Haemophilus influenzae* type b \(DTaP-HB-IPV-Hib\) Vaccine](#)

[HealthLink BC File #15b –Diphtheria, Tetanus, Pertussis, Polio, *Haemophilus influenzae* type b \(DTaP-IPV-Hib\) Vaccine](#)

[HealthLink BC File #16 – *Haemophilus influenzae* type b \(Hib\) Vaccine](#)



Hand, Foot and Mouth Disease

What is it?	Hand, foot and mouth disease is caused by a virus. It most commonly affects children under 10 years of age and occurs mainly in the summer and early fall.
What are the signs and symptoms?	Signs and symptoms of hand, foot and mouth disease usually start suddenly and may include: ➤ Fever ➤ Sore throat ➤ Headache ➤ Small painful blisters inside the mouth on the tongue and gums (which may last 4–6 days) ➤ Blisters that may appear on the palms of a child's hand, on their fingers and on the soles of their feet Some people with hand, foot and mouth disease may not have any symptoms.
How is it spread?	Hand, foot and mouth disease is spread by: ➤ Breathing in air contaminated with the virus after an infected person has coughed or sneezed ➤ Touching the nose and throat secretions of an infected person and then touching your own eyes, nose or mouth ➤ Touching an infected child's stool (e.g., when changing a diaper or assisting a child with toileting) ➤ Touching objects contaminated with the virus. Hand, foot and mouth disease spreads very easily in child care centres and places where children are close together.
Incubation period	Usually 3–6 days following contact with an infected person.
When is the person contagious?	Usually for the first week of the illness. However, the virus can remain in the body for weeks after the start of the illness.
How to prevent the spread of the illness to other children	A child with hand, foot and mouth disease may go to school or a child care centre if they feel well enough to attend. Carefully dispose of (or clean, if applicable) articles soiled by discharge from an infected child's nose, throat or stool.

For more information see:

[HealthLink BC File #64 – Hand, Foot and Mouth Disease](#)



Head Lice

What is it?	Head lice are tiny insects that live on the scalp. Lice have 3 stages in their life cycle: ➤ Nits (eggs) are whitish gray, tan or yellow ovals about the size of a grain of sand. They are found stuck to the hair, often behind the ears or at the back of the neck. Nits hatch in 9–10 days. ➤ Nymphs are young lice. They look like adult lice but are smaller. ➤ Adult lice are about the size of a sesame seed. They can live up to 30 days on a person's head. Adult lice move around on the scalp and are much more difficult to see than nits. Nymphs and adult lice can live for up to 2 days away from the scalp. Eggs can live for 7–10 days away from the scalp but need the higher temperature near the scalp to hatch. Detection of a live louse is the best way to confirm head lice. The most effective method of detecting live lice is by using a fine tooth lice comb on dry or wet hair.
What are the signs and symptoms?	Signs and symptoms of head lice may include: ➤ Itchy scalp (may be worse at night) ➤ Scratching marks or small red lesions like a rash A child with head lice may not have any symptoms.
How is it spread?	Head lice are spread by: ➤ Direct hair-to-hair contact (most common) ➤ Sharing hats, combs, hairbrushes, hair accessories, helmets or headphones Head lice cannot fly or hop, but they can crawl very quickly. Head lice that live on people cannot live on pets such as cats and dogs.
Incubation period	The period from the laying of eggs to emerging adult lice is 14–23 days.
How long can head lice be spread?	As long as live lice and nits are present.
How to prevent the spread of the infestation to other children	A child with head lice does not need to be excluded from school or a child care centre. Provide parents with information regarding checking for head lice and treatment options. Discourage direct head-to-head contact between children. Children should be encouraged not to share things like hats, combs, hairbrushes, helmets or headphones. Items that may have been in prolonged or close contact with the child's head at the school or child care centre should be washed in hot water if possible. Items that can't be washed should be stored in a sealed air-tight plastic bag for 2 weeks or in the freezer for 48 hours.

For more information see:

[HealthLink BC File #06 – Head Lice](#)



Hepatitis A	
What is it?	Hepatitis A is an infection of the liver caused by the hepatitis A virus. It is usually a mild illness and rarely causes permanent liver damage. Hepatitis A is usually more serious in adults than children. Hepatitis A can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of hepatitis A may include: ➤ Fatigue ➤ Fever ➤ Nausea and vomiting ➤ Loss of appetite ➤ Abdominal pain ➤ Jaundice (yellowing of the skin and eyes) ➤ Dark urine Most infants and young children infected with hepatitis A do not have any symptoms.
How is it spread?	The hepatitis A virus is found in the stool of an infected person. The virus is spread by: ➤ Contact with the stool or hands of an infected person ➤ Touching objects contaminated with the virus ➤ Eating food prepared by an infected person who has not washed their hands properly ➤ Drinking contaminated water
Incubation period	Usually 15–50 days (average of 28 days).
When is the person contagious?	From about 2 weeks before symptoms begin until 1 week after jaundice begins.
How to prevent the spread of the illness to other children	Contact local public health. Exclusion of a child or adult with hepatitis A from a child care centre is at the discretion of the Medical Health Officer. A person with hepatitis A should be excluded for 14 days from the onset of symptoms or 7 days from the onset of jaundice, whichever is longer. The hepatitis A vaccine or immune globulin may be recommended for people who were in contact with someone with hepatitis A.

For more information see:

[HealthLink BC Health Topics – Hepatitis A](#)
[HealthLink BC File #33 – Hepatitis A Vaccine](#)



Impetigo

What is it?	Impetigo is a common skin infection caused by group A <i>Streptococcus</i> (strep) or <i>Staphylococcus aureus</i> (staph) bacteria. Infections usually start when bacteria enter the body through breaks in the skin, such as scrapes, cold sores, insect bites or patches of eczema. It is most common in the summer.
What are the signs and symptoms?	Signs and symptoms of impetigo may include: ➤ A rash that looks like clusters of red bumps or blisters surrounded by an area of redness. There may be fluid oozing from the blisters and they may develop a yellow (honey colored) or gray crust. ➤ Sores around the mouth and nose and on skin not covered by clothing
How is it spread?	Impetigo is spread by contact with: ➤ The rash or discharge from the rash of an infected person ➤ Secretions from the nose and throat of an infected person ➤ Objects such as towels, bed sheets and clothing that have been in contact with the sores of an infected person
Incubation period	Staph bacteria: 4–10 days following contact with an infected person. Strep bacteria: 1–3 days following contact with an infected person.
When is the person contagious?	As long as the rash continues to drain. After 24 hours of antibiotic treatment, a child with impetigo is no longer contagious.
How to prevent the spread of the illness to other children	A child with impetigo should be excluded from school or a child care centre until 24 hours after starting antibiotic treatment. Suggest that parents of a child suspected to have impetigo take their child to their health care provider for confirmation and treatment. Carefully dispose of (or clean, if applicable) articles soiled by discharge from the rash or nose and throat secretions of an infected child. Ensure children do not share clothing, towels, washcloths or bedding with other children. Wash linens in hot water and dry in a hot dryer.

For more information see:

[HealthLink BC File #81 – Impetigo](#)



Influenza

What is it?	Influenza (the flu) is an infection of the upper airway caused by an influenza virus. Those at high risk of influenza-related complications include (but are not limited to) children under 5 years of age, adults over 65 years of age, people with chronic health conditions, and pregnant women. Influenza season in Canada is usually November through April. Influenza can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of influenza may include: ➤ Fever ➤ Cough, sneezing, runny nose ➤ Headache ➤ Sore throat ➤ Body aches ➤ Fatigue and weakness ➤ Nausea, vomiting and diarrhea (more common in children than adults)
How is it spread?	Influenza is spread by: ➤ Breathing in air contaminated with the virus when an infected person has coughed or sneezed ➤ Contact with the hands of an infected person (e.g., shaking hands, holding hands) ➤ Touching an object contaminated with the influenza virus (the virus can live up to 2 days on hard surfaces) Child care providers may get the virus on their hands by assisting a child to use a tissue and then spread it to other children by touching them.
Incubation period	Usually 1–4 days following contact with an infected person
When is the person contagious?	Usually from 1 day before to 5 days after symptoms develop (young children may be able to spread the virus longer)
How to prevent the spread of the illness to other children	A child with influenza may go to school or a child care centre if they feel well enough to attend. Carefully dispose of (or clean if applicable) articles contaminated with the nose and throat secretions of an infected child.

For more information see:

[HealthLink BC File #12b – Facts about Influenza \(the Flu\)](#)

[HealthLink BC File #12d – Inactivated Influenza \(Flu\) Vaccine](#)

[HealthLink BC File #12e – Live Attenuated Influenza \(Flu\) Vaccine](#)



Measles

What is it?	Measles is caused by the measles virus. It is one of the most contagious communicable diseases and a leading cause of deaths in children worldwide. Measles can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of measles may include: ➤ Fever, cough, runny nose and red inflamed eyes ➤ Dusky red, blotchy rash that begins on the face and spreads all over the body beginning 3–7 days after symptoms start (rash lasts 4–7 days) ➤ Small red spots with white or bluish white centers in the mouth A doctor or nurse practitioner may be able to diagnose measles based on a child's symptoms but a blood test is needed to confirm the diagnosis.
How is it spread?	Measles is spread by: ➤ An infected person coughing, sneezing or breathing ➤ A person can become infected when they breathe in the air or touch an object contaminated with the measles virus. The virus can survive in small droplets in the air for several hours and infect people. ➤ Contact with the nose and throat secretions of an infected person
Incubation period	Usually 8–12 days (range of 7–18 days)
When is the person contagious?	From about 4 days before to 4 days after the rash appears.
How to prevent the spread of the illness to other children	Contact local public health. A child with measles should be excluded from the school or child care centre until at least 4 days after the rash appears if there are susceptible individuals in the setting. The measles, mumps and rubella vaccine (MMR) may be recommended for individuals who are contacts of a case of measles. Immune globulin may be provided to prevent measles in exposed individuals who are unable to receive the MMR vaccine for any reason. Susceptible contacts of a case of measles who cannot receive the MMR vaccine or immune globulin may be excluded from the school or child care centre at the discretion of the Medical Health Officer.

For more information see:

[HealthLink BC File #14b – Measles](#)

[HealthLink BC File #14a – Measles, Mumps, Rubella \(MMR\) Vaccine](#)

[HealthLink BC File #14e – Measles, Mumps, Rubella and Varicella \(MMRV\) Vaccine](#)



Meningitis

What is it?	Meningitis is an inflammation of the lining that surrounds the brain and spinal cord. Meningitis can be caused by bacteria or viruses. A diagnosis of meningitis is made by a primary health care provider. Bacteria that cause meningitis include: ➤ <i>Haemophilus influenzae</i> type b (Hib) (see Hib) ➤ <i>Neisseria meningitidis</i> (see Meningococcal Meningitis) ➤ <i>Streptococcus pneumoniae</i> ➤ Group B streptococcus About 90% of cases of viral meningitis are caused by members of a group of viruses known as enteroviruses, including coxsackieviruses, echoviruses and polioviruses. Mumps virus and herpes simplex virus can also cause meningitis.
What are the signs and symptoms?	Signs and symptoms of meningitis may include: ➤ High fever, headache, and stiff neck (common in anyone over the age of 2 years) ➤ Irritability, sleepiness, inactivity, vomiting and poor feeding in children less than 2 years of age ➤ Nausea, vomiting, discomfort when looking into bright lights, confusion and sleepiness ➤ Seizures may occur as the illness progresses
How is it spread?	Viral meningitis is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing air contaminated with the virus when an infected person has coughed or sneezed ➤ Kissing or sharing anything that is put in the mouth (e.g., food, drinks, baby bottles, soothers, sippy cups, lipstick, water bottles, mouth guards used for sports or mouthpieces of musical instruments) ➤ Touching the hands of an infected person (e.g., shaking hands or holding hands) or an object contaminated with the virus The viruses that cause viral meningitis may also be found in the stool of an infected person. The viruses may be spread through contact with infected stool or an object contaminated with virus from the stool.
Incubation period	For enteroviruses: about 3–7 days
When is the person contagious?	For enteroviruses: from about 3 days after infection to 10 days after developing symptoms.
How to prevent the spread of the illness to other children	Contact local public health. A child with viral meningitis can go to school or a child care centre if they feel well enough to attend.

For more information see:

[HealthLink BC Health Topics – Meningitis](#)



Meningococcal Meningitis

What is it?	Meningococcal meningitis is an infection of the lining of the brain and spinal cord caused by <i>Neisseria meningitidis</i> bacteria. It can cause serious illness and death. The case fatality rate is 8–15%. The bacteria that cause meningitis can be found in the nose and throat of 5–10% of people at any time but less than 1% of these people will develop invasive meningococcal disease. Meningococcal bacteria also cause septicemia (an infection of the blood) and pneumonia (an infection of the lungs). Meningococcal disease can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of meningococcal meningitis occur suddenly and may include: ➤ Fever ➤ Stiff neck ➤ Severe headache ➤ Nausea and vomiting ➤ Bulging fontanelle (soft spot of the skull) in infants ➤ Pinpoint rash A diagnosis of meningococcal meningitis needs to be confirmed by a lab test.
How is it spread?	Meningococcal meningitis is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing air contaminated with the bacteria when an infected person has coughed or sneezed ➤ Kissing or sharing anything that is put in the mouth (e.g., food, drinks, baby bottles, soothers, sippy cups, lipstick, water bottles, mouth guards used for sports or mouthpieces of musical instruments)
Incubation period	Usually less than 4 days (range is 1–10 days)
When is the person contagious?	From 7 days prior to the onset of symptoms until 24 hours after antibiotics are started.
How to prevent the spread of the illness to other children	Contact local public health. A child with meningococcal meningitis should be excluded from school or a child care centre until 24 hours after antibiotics are started. A child diagnosed with meningococcal meningitis will be hospitalized and treated with antibiotics. Household and other close contacts (including children and staff in child care and preschool centres) will be offered antibiotics. For some types of meningococcal meningitis, close contacts will also be offered a vaccine. Antibiotics are not usually recommended for casual contacts (e.g., school or classroom contacts or transportation or workplace contacts).

For more information see:

[HealthLink BC File #23a – Meningococcal C Conjugate \(Men-C\) Vaccine](#)

[HealthLink BC File #23b – Meningococcal Quadrivalent Vaccines](#)



Methicillin-Resistant *Staphylococcus aureus* (MRSA)

What is it?	Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) are types of <i>Staphylococcus aureus</i> (staph) bacteria that have become resistant to certain antibiotics, including methicillin, that are used to treat a staph infection. Staph infections are relatively common and usually harmless. They have often been treated with antibiotics from the penicillin family. The frequent use of these antibiotics has resulted in some staph bacteria changing so that they can survive when these antibiotics are present. These types of staph bacteria are referred to as methicillin-resistant <i>Staphylococcus aureus</i> (MRSA). There are other types of antibiotics that can be used to treat MRSA infections. Most staph infections heal quickly when treated with antibiotics. More severe infections can lead to infections of the blood, bones, brain, heart or lungs.
What are the signs and symptoms?	Signs and symptoms of a staph infection or MRSA may include: ➤ Red, painful bumps under the skin (i.e., boils or abscesses) ➤ Sores that contain pus or are covered with a honey colored crust ➤ A wound that looks like a spider bite ➤ Fever and chills
How is it spread?	MRSA is spread by: ➤ Direct skin-to-skin contact ➤ Touching surfaces or objects (e.g., doorknob, faucet, towels, bedding) contaminated with MRSA bacteria
Incubation period	Variable
When is the person contagious?	As long as the sores continue to drain.
How to prevent the spread of the illness to other children	A child with MRSA can go to school or a child care centre if the sores are not draining or they can be covered with a dry dressing. The child should avoid activities such as sports that involve skin-to-skin contact until the infection is healed. Ensure children do not share washcloths, towels or bedding. Wash all linens in hot water and dry in a hot dryer. Carefully dispose of (or clean, if applicable) articles that are soiled with discharge from the child's sores.

For more information see:

[HealthLink BC File #73 – Methicillin-Resistant Staphylococcus Aureus \(MRSA\)](#)



Molluscum Contagiosum

What is it?	Molluscum contagiosum is a viral infection of the skin caused by a poxvirus. The virus causes small bumps on the skin's surface. Molluscum contagiosum can be spread easily to others but is not harmful. Without treatment, the infection can last for 6 months to 2 years.
What are the signs and symptoms?	Signs and symptoms of molluscum contagiosum may include: ➤ Tiny painless bumps that appear on the skin anywhere on the body. The bumps become small, waxy, pinkish-white, raised lesions which may have a small crater in the center of them. ➤ The bumps may become swollen and red In children, the bumps most often appear on the face, body, legs and arms. In adults, they can appear anywhere on the body.
How is it spread?	Molluscum contagiosum is spread through direct skin-to-skin contact by touching: ➤ The lesions or the hands of an infected person ➤ A contaminated object (i.e., an object that has been touched by an infected person after they scratched the lesions) The lesions can be spread to another part of the body by scratching.
Incubation period	Range is 2 weeks to 6 months
When is the person contagious?	Unknown, probably for as long as the lesions exist
How to prevent the spread of the illness to other children	A child with molluscum contagiosum may go to school or a child care centre if they feel well enough to attend.

For more information see:

[HealthLink BC File #08i – Molluscum Contagiosum](#)



Mononucleosis (Mono)

What is it?	Mononucleosis (mono) is a disease caused by the Epstein-Barr virus (EBV). It is most common in adolescents and young adults. About half of the people infected with EBV develop symptoms.
What are the signs and symptoms?	Signs and symptoms of mono may include: ➤ Fatigue ➤ Fever ➤ Sore throat ➤ Swollen lymph glands ➤ Fatigue ➤ Enlarged liver and spleen ➤ Jaundice (yellowing of the skin and eyes) occurs occasionally
How is it spread?	Mono is spread through contact with the saliva of an infected person by: ➤ Kissing ➤ Sharing food, drinks or anything that children put in their mouths (e.g., toys, sippy cups, soothers) ➤ Touching objects contaminated with the virus from an infected person's saliva
Incubation period	Usually 4–6 weeks following contact with an infected person
When is the person contagious?	Uncertain, but prolonged. A child with mono is most contagious when symptoms are at their peak but may remain contagious for up to a year after the illness.
How to prevent the spread of the illness to other children	A child with mono may go to school or a child care centre when they feel well enough to attend. This may take 1–4 weeks or longer after symptoms appear. Carefully dispose of (or clean, if applicable) articles soiled with the nose and throat secretions of an infected child.

For more information see:

[HealthLink BC Health Topics – Mononucleosis \(Mono\)](#)



Mumps

What is it?	Mumps is caused by the mumps virus. Many children may have mild or no symptoms but they can still spread the disease to others. Adults with mumps are more likely to experience complications than children. Complications of mumps include: ➤ Meningitis (swelling of the lining of the brain and spinal cord) and encephalitis (swelling of the brain) ➤ Painful swelling of the testes or ovaries ➤ Temporary deafness Mumps can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of mumps may include: ➤ Fever ➤ Headache ➤ Swollen and painful salivary glands (found in front of and below the ear or under the jaw)
How is it spread?	Mumps is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing in air contaminated with the virus when an infected person has coughed or sneezed ➤ Touching the nose and throat secretions of an infected person ➤ Kissing, or sharing food, drinks or anything that is put in the mouth (e.g., cups, toys)
Incubation period	Usually 16–18 days following contact with an infected person but can range from 12–25 days
When is the person contagious?	A child with mumps is most contagious 2 days before to 5 days after the onset of illness. However, mumps virus has been isolated from 7 days before to 9 days after the onset of salivary gland swelling.
How to prevent the spread of the illness to other children	Contact local public health. A child with mumps should be excluded from school or a child care centre for at least 5 days and up to 9 days after the onset of salivary gland swelling. Carefully dispose of (or clean, if applicable) articles soiled with the nose and throat secretions of an infected child.

For more information see:

[HealthLink BC File #14c – Mumps](#)

[HealthLink BC File #14a – Measles, Mumps, Rubella \(MMR\) Vaccine](#)

[HealthLink BC File #14e – Measles, Mumps, Rubella and Varicella \(MMRV\) Vaccine](#)



Norovirus	
What is it?	Norovirus is a very contagious virus that infects the digestive tract (stomach and intestine). A norovirus infection causes vomiting and diarrhea. Complications and severe illness from norovirus are rare. However, young children and the elderly may become dehydrated if they are unable to replace fluids lost due to vomiting and diarrhea.
What are the signs and symptoms?	Signs and symptoms of norovirus infection usually develop suddenly and may include: ➤ Nausea and vomiting ➤ Diarrhea ➤ Abdominal cramping ➤ Fever ➤ Chills Symptoms usually last for 1–3 days.
How is it spread?	Norovirus is present in the stool and vomit of a person infected with the virus. The virus is spread by: ➤ Direct contact with an infected child's stool or vomit ➤ Touching a surface or object contaminated with the virus. Norovirus can live for a long time on surfaces such as sinks, taps, counters and toys. ➤ Touching the hand of an infected person or a person who recently changed an infected child's diaper or assisted the child with toileting. ➤ Consuming food or drink prepared by an infected person or a person who recently changed an infected child's diaper or assisted the child with toileting ➤ Breathing in air contaminated with norovirus after an infected person has vomited
Incubation period	Usually 1–2 days
When is the person contagious?	People are most contagious when they are ill and in the first 3 days after they recover. Some people may be contagious for up to 2 weeks after becoming ill.
How to prevent the spread of the illness to other children	A child with norovirus should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care. Carefully dispose of (or clean, if applicable) articles soiled with the vomit or stool from an infected child.

For more information see:

[HealthLink BC File #87 – Norovirus](#)



Pertussis (Whooping Cough)

What is it?	Pertussis is a very contagious respiratory illness caused by <i>Bordetella pertussis</i> bacteria. It can cause serious illness in children and adults. Infants under one year of age are at highest risk. Each year 1–3 deaths occur in Canada as a result of pertussis, mostly in young infants. If a pregnant woman has pertussis 2–3 weeks before giving birth, the newborn is at high risk of getting pertussis. Pertussis can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of pertussis may include: ➤ Sneezing, runny nose, mild fever and a mild cough After 1–2 weeks, the cough worsens. Coughing becomes severe with repeated forceful coughing spells that often end with a whooping sound before the next breath. A child will sometimes vomit after coughing. The cough can last for several weeks. Adults and adolescents who are infected with pertussis bacteria may not have any of the above symptoms or only have a mild illness.
How is it spread?	Pertussis is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing in air contaminated with pertussis bacteria when an infected person has coughed or sneezed ➤ Kissing or sharing food, drinks or anything that is put in the mouth (e.g., cups, toys) ➤ Touching the nose and throat secretions of an infected person or objects contaminated with the bacteria Infected adults or adolescents with a mild illness or no symptoms can infect infants.
Incubation period	Usually 7–10 days (range is 5–21 days)
When is the person contagious?	Usually from the time when the first symptoms develop (1–2 weeks before severe coughing starts) until about 3 weeks after the cough starts. A child who is started on antibiotics is not contagious after 5 days of antibiotic treatment.
How to prevent the spread of the illness to other children	Contact local public health. Exclusion of a child with pertussis from school or a child care centre is at the discretion of the Medical Health Officer. Antibiotics may be recommended for high risk, close contacts of a child with pertussis (i.e., an infant under 1 year of age, a pregnant woman in her third trimester) or when there is a high risk person in the household, child care centre or school.

For more information see:

[HealthLink BC File #15c – Pertussis \(Whooping Cough\)](#)

[HealthLink BC File #105 – Diphtheria, Tetanus, Pertussis, Hepatitis B, Polio and *Haemophilus influenzae* type b \(DTaP-HB-IPV-Hib\) Vaccine](#)

[HealthLink BC File #15b– Diphtheria, Tetanus, Pertussis, Polio, *Haemophilus influenzae* type b \(DTap-IPV-Hib\) Vaccine](#)

[HealthLink BC File # – Tetanus, Diphtheria, Pertussis, Polio \(Tdap-IPV\) Vaccine](#)

[HealthLink BC File #18c – Tetanus, Diphtheria, Pertussis \(Tdap\) Vaccine](#)



Pink Eye (Conjunctivitis)

What is it?	Pink eye is an inflammation of the covering of the eyeball and the inside of the eyelid. It can be caused by bacteria, viruses, allergies or irritants (chemical or physical).
What are the signs and symptoms?	Signs and symptoms of pink eye may include: ➤ Teary, red, itchy eye(s) ➤ Swollen eyelids ➤ Pus or a thick discharge (yellow or yellowish-green color) that can make eyelids sticky, especially during sleep
How is it spread?	Pink eye caused by bacteria and viruses spreads easily through contact with the discharge from an infected child's eye by: ➤ Touching the discharge ➤ A child with pink eye touching the discharge from their eye and then touching another child ➤ Touching an object (e.g., tissue, facecloth, eye dropper, makeup applicator) contaminated with the discharge from the eye of an infected child Pink eye caused by bacteria or viruses can also be spread by breathing in air contaminated with the bacteria or viruses when an infected person has coughed or sneezed.
Incubation period	Usually 1–3 days following contact with an infected person
When is the person contagious?	If pink eye is caused by bacteria, a child who has started treatment with antibiotics will not be contagious after 24 hours. A child with pink eye caused by a virus can be contagious from before symptoms start until they end.
How to prevent the spread of the illness to other children	If a child is started on antibiotics for pink eye caused by bacteria they should be excluded from school or a child care centre until at least 24 hours after starting treatment. If pink eye is caused by a virus or other irritant, the child may return to school or a child care centre after seeing their health care provider. Ensure children do not share washcloths, towels or bedding. Carefully dispose of articles (or clean, if applicable) contaminated with secretions from a child's eye immediately after use.

For more information see:

[HealthLink BC File #82 – Pinkeye \(Conjunctivitis\)](#)



Pinworms

What is it?	Pinworms are tiny, white worms that live in the intestines. The female worms crawl out of the anus at night and lay their eggs on nearby skin. The eggs can live for up to 2 weeks outside of the body. Pinworms can be unpleasant and uncomfortable but they do not cause disease. Pinworm infections are common, especially among school aged and preschool aged children, and children attending a child care centre.
What are the signs and symptoms?	Signs and symptoms of pinworm infection may include: ➤ Intense itchiness around the anus and vagina, especially at night ➤ Sleeplessness ➤ Irritability Children with pinworms often have no symptoms.
How is it spread?	Pinworms are spread by accidentally swallowing pinworm eggs. This can occur by: ➤ Touching the hands of a child who has scratched the itchy area of the body where the eggs are present ➤ Touching objects (e.g., toys, toilet seats, baths, clothes or bedding) contaminated with pinworm eggs ➤ Ingesting eggs that have become airborne (e.g., by shaking a bedsheet) when breathing
Incubation period	1–2 months or longer from the time pinworm eggs are ingested.
When is the person contagious?	As long as female worms are still present and producing eggs.
How to prevent the spread of the infection to other children	A child with pinworms can go to school or a child care centre after receiving appropriate treatment (usually one dose of a prescribed oral medication). Vacuum living areas.

For more information see:

[HealthLink BC Health Topics – Pinworms](#)



Respiratory Syncytial Virus (RSV)

What is it?	Respiratory syncytial virus (RSV) is a virus that causes upper and lower respiratory tract infections. It can cause bronchiolitis and pneumonia in young children and infants. Most children have been infected with RSV by 2 years of age. RSV is usually a mild illness that can be managed at home. Children who are at risk for more serious illness and hospitalization include: ➤ Infants less than 6 months of age ➤ Premature infants ➤ Children with chronic lung or heart disease ➤ Children with weakened immune systems
What are the signs and symptoms?	Signs and symptoms of RSV often resemble the common cold and may include: ➤ Stuffy or runny nose ➤ Low grade fever or chills ➤ Cough ➤ Earache ➤ Rapid breathing or wheezing ➤ Listlessness, inactivity ➤ Decreased appetite The symptoms of RSV may resemble other illnesses. A diagnosis of RSV is made by a doctor or nurse practitioner.
How is it spread?	RSV is spread through contact with the secretions from the eyes, nose and mouth of an infected child by: ➤ Breathing in air contaminated with the virus when an infected person has coughed or sneezed ➤ Touching the secretions from an infected child's eyes, nose or mouth ➤ Touching surfaces that have been contaminated with the virus. RSV can live on hard surfaces (e.g., toys, doorknobs) for many hours and on the hands for 30 minutes or more.
Incubation period	Usually 4–6 days (range is 2–8 days)
When is the person contagious?	Usually for 3–8 days, starting right before the onset of symptoms
How to prevent the spread of the illness to other children	A child with RSV can go to school or a child care centre if they feel well enough to attend. Carefully dispose of (or clean, if applicable) articles soiled by discharge from an infected child's eyes, nose or mouth.

For more information see:

[HealthLink BC Health Topics – Respiratory Syncytial Virus \(RSV\) Infection](#)



Ringworm

What is it?	Ringworm is a skin infection caused by a fungus. It can be found on the scalp, body, groin or feet. Scalp ringworm is very contagious, especially among children. It mainly affects children between 3 and 9 years of age. Foot ringworm (athlete's foot) affects males more than females and is more common after puberty.
What are the signs and symptoms?	Signs and symptoms of a ringworm infection may include: ➤ A ring shaped rash that is reddish and may be itchy. The rash may be dry and scaly or wet and crusty. ➤ Patches of hair loss or hair thinning if the ringworm infection is on the scalp Symptoms of foot ringworm may include foot itching, rash or blisters on the foot and scaling of the foot.
How is it spread?	Ringworm is spread by contact with: ➤ An area of ringworm infection ➤ An object or surface (e.g., hairbrushes, combs, unwashed clothes or towels, pillows and pool or shower surfaces) contaminated with the fungus. The fungus can live for long periods of time on objects and surfaces. ➤ Infected animals such as dogs, cats and farm animals
Incubation period	Usually from 4–14 days
When is the person contagious?	As long as the rash is present
How to prevent the spread of the infection to other children	A child with ringworm should be excluded from school or a child care centre until the child has seen their health care provider and has taken the first dose of prescribed medication. Ensure children do not share hairbrushes, combs, washcloths, towels or pillows. Advise children to avoid petting animals with bald spots.

For more information see:

[HealthLink BC Health Topics – Ringworm of the Skin](#)



Roseola

What is it?	Roseola is a common illness caused by a virus. It mainly affects children between 6 months and 2 years of age. It rarely affects children after 4 years of age.
What are the signs and symptoms?	Signs and symptoms of roseola may include: ➤ A fever (sometimes > 39.5°C) that appears suddenly and lasts 3–5 days. The rapid rise in temperature may cause a febrile seizure. ➤ Swelling of the eyelids may occur ➤ A rosy, pink rash that usually develops as the fever is resolving. It first appears on the neck and chest, and then spreads to the rest of the body. The spots from the rash turn white when pressed gently and they may have a lighter color ring around them. The rash may last from a few hours to 2 days. ➤ Irritability ➤ Diarrhea and vomiting ➤ Swollen glands in the neck
How is it spread?	Roseola is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing in air contaminated with the virus when an infected person has talked, laughed, coughed or sneezed Older siblings, caregivers and parents may spread the disease to children that have not had it.
Incubation period	Usually 10 days following contact with an infected person (range is 5–15 days)
When is the person contagious?	An infected child is probably most contagious during the period of high fever, before the rash develops. The exact duration of infectiousness is unknown. Many adults have the virus present in their saliva (even if they were infected as children) and may spread the disease to infants.
How to prevent the spread of the illness to other children	A child with roseola can return to school or a child care centre when the fever and rash are gone and they feel well enough to attend.

For more information see:
[HealthLink BC File #83 – Roseola](#)



Rotavirus

What is it?	Rotavirus is the most common cause of diarrhea and hospitalization due to diarrhea in children under 5 years of age. It usually affects children between 6 months and 2 years of age. The illness usually lasts 4–8 days. Children with rotavirus infection usually recover completely without treatment. Some children may need to be hospitalized for rehydration (replacement of lost fluids) due to diarrhea. In Canada, most rotavirus infections occur in later winter and early spring. Rotavirus can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of rotavirus may include: ➤ Fever ➤ Vomiting ➤ Diarrhea ➤ Abdominal pain
How is it spread?	Rotavirus is spread through contact with an infected child's stool by: ➤ Changing an infected child's diaper or assisting a child with toileting ➤ Touching an object (e.g., toy, faucet, doorknob) contaminated with stool containing rotavirus. The virus is able to survive for long periods on hard surfaces, on hands and in water. Children with rotavirus have large numbers of the virus in their stool. The virus spreads easily in a child care facility or family home.
Incubation period	Usually 1–3 days
When is the person contagious?	During the acute stage of the illness and until the diarrhea has stopped.
How to prevent the spread of the illness to other children	A child with rotavirus should be excluded from a child care centre until 48 hours after the last episode of diarrhea or vomiting.

For more information see:

[HealthLink BC File #104a – Rotavirus Vaccine \(Rotarix®\)](#)



Rubella (German Measles)

What is it?	Rubella, also known as German measles, is a very contagious illness caused by the rubella virus. It is usually a mild illness but can be very serious in pregnant women. Rubella can be confused with other rashes and needs to be confirmed by a lab test. Rubella infection during pregnancy can cause severe birth defects, miscarriage or stillbirth. Up to 85% of fetuses infected with rubella in the first 12 weeks of pregnancy will develop Congenital Rubella Syndrome (CRS). CRS can result in severe birth defects including deafness, eye problems, heart defects and damage to the liver, spleen and brain. Rubella can be prevented by immunization.
What are the signs and symptoms?	Signs and symptoms of rubella may include: ➤ A rash (which may be itchy) that starts on the face and spreads downwards and lasts about 3–5 days ➤ Fever ➤ Swelling and soreness of the lymph nodes behind the ears and at the back of the neck ➤ Discomfort ➤ Headache ➤ Runny nose ➤ Irritated eyes ➤ Joint soreness in adult women but this is rare in men and children About 50% of people infected with rubella have no symptoms.
How is it spread?	Rubella is spread through contact with the nose and throat secretions of an infected person by: ➤ Breathing in air contaminated with the rubella virus when an infected person has coughed or sneezed ➤ Touching objects contaminated with the virus ➤ Kissing or sharing food, drinks or anything that is put in the mouth
Incubation period	Usually 14–17 days (range 14–21 days)
When is the person contagious?	From 7 days before until 7 days after the onset of the rash. A child with rubella is most contagious when the rash first appears. An infant with CRS can shed the rubella virus in their nose and throat secretions and urine for up to one year.
How to prevent the spread of the illness to other children	Contact local public health. A child with rubella should be excluded from school or a child care centre for 7 days after the appearance of the rash if susceptible individuals are present. Pregnant women working at the school or child care centre who are contacts of a child with rubella should contact their health care provider to determine whether or not they are immune to rubella.

For more information see:

[HealthLink BC File #14d – Rubella](#)

[HealthLink BC File #14a – Measles, Mumps, Rubella \(MMR\) Vaccine](#)

[HealthLink BC File #14e – Measles, Mumps, Rubella and Varicella \(MMRV\) Vaccine](#)



Salmonellosis	
What is it?	Salmonellosis is a food borne infection caused by <i>Salmonella</i> bacteria. The bacteria live in the intestines of people and animals and cause a diarrhea illness. Very young children, the elderly and those with weakened immune systems may have severe diarrhea which can lead to dehydration (loss of fluids) that requires treatment in a hospital.
What are the signs and symptoms?	Signs and symptoms of salmonellosis occur suddenly and may include: ➤ Stomach pain ➤ Diarrhea ➤ Fever ➤ Nausea and vomiting Symptoms usually last 4–7 days and resolve without treatment.
How is it spread?	<i>Salmonella</i> are present in the stool of infected people and animals. The bacteria are spread by: ➤ Eating raw or undercooked poultry, meat or eggs contaminated with the bacteria ➤ Eating fruit and vegetables that have been contaminated ➤ Eating food prepared by an infected person who has not washed their hands ➤ Drinking or eating unpasteurized dairy products such as milk ➤ Handling animals and pets such as chicks, ducklings, hamsters, gerbils, turtles, lizards and snakes which can be infected with <i>Salmonella</i> bacteria
Incubation period	Usually 12–36 hours (range is 6–72 hours)
When is the person contagious?	Throughout the course of the infection. Some people, especially infants, may be contagious for months after the illness.
How to prevent the spread of the illness to other children	A child with salmonellosis should be excluded from school or a child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care.

For more information see:
[HealthLink BC File #17 – Salmonellosis](#)



Scabies

What is it?	Scabies is caused by tiny (microscopic) insect-like parasites called mites. The mites burrow under the upper layer of the skin to live and lay eggs. Symptoms of scabies occur due to an allergic reaction to the mites and their eggs. Scabies is not due to poor hygiene.
What are the signs and symptoms?	Signs and symptoms of scabies may include: ➤ Intense itching, especially at night ➤ A pimple-like rash ➤ The presence of tiny burrows that look like grayish wavy, thread-like raised lines on the skin The itching and rash may occur all over the body but the most common sites are the webbing between the fingers, the inside of the wrists and elbows, the breasts, the male genitals, the waist, back and buttocks In infants and young children, the rash can appear on the face, head, neck, palms and soles of the feet.
How is it spread?	Scabies is spread by: ➤ Direct skin-to-skin contact with a person with scabies ➤ Sharing clothes, towels or bedding (less common) Scabies mites can survive for up to 3 days when they are not in contact with human skin.
Incubation period	Usually 2–6 weeks in someone who has not had scabies. In someone who has had scabies, symptoms develop 1–4 days after re-exposure.
When is the person contagious?	Until mites and eggs have been destroyed by treatment with lotions, creams or pills prescribed by a health care provider. A person with a scabies infestation can spread scabies even if they do not have any symptoms.
How to prevent the spread of the infestation to other children	A child with scabies should be excluded from school or a child care centre until the child has completed one treatment. Inform parents of children in direct contact with a child with scabies so that all family members and close contacts of the child can be treated at the same time. Bedding, towels and clothing worn next to the skin in the 3 days before treatment should be washed with detergent in hot water and dried in a hot dryer. Any items that cannot be washed should be dry-cleaned or stored in a sealed air-tight plastic bag for 7 days. Vacuum carpets and soft or upholstered furniture.

For more information see:

[HealthLink BC File #09 – Scabies](#)



Shigellosis	
What is it?	Shigellosis is an infection of the intestines caused by <i>Shigella</i> bacteria. The bacteria are found in the stool of infected people and are very contagious.
What are the signs and symptoms?	Signs and symptoms of shigellosis may include: ➤ Diarrhea (often bloody) ➤ Fever ➤ Stomach cramps ➤ Nausea and vomiting Shigellosis usually lasts 4–7 days. A severe illness with fever and seizures may occur in children who are less than 2 years old.
How is it spread?	Shigellosis is spread by contact with the stool from an infected person by: ➤ Touching infected stool (e.g., changing a diaper or assisting a child with toileting) ➤ Touching an object that has been contaminated with the bacteria (e.g., toys, faucets, water in a children's water table or wading pool) ➤ Eating contaminated food or drinking contaminated water Shigellosis can spread easily in child care centres, especially where there are children between 2 and 4 years of age.
Incubation period	Usually 1–3 days
When is the person contagious?	During acute illness and for up to 4 weeks after diarrhea stops. Treatment with antibiotics shortens the length of time a person is contagious.
How to prevent the spread of the illness to other children	A child with shigellosis should be excluded from a school or child care centre until 48 hours after their last episode of diarrhea or vomiting or as advised by the local Health Authority. Anyone with symptoms should be excluded from food handling and child care.

For more information see:

[HealthLink BC File #80 – Shigellosis](#)



Shingles (Herpes Zoster)

What is it?	Shingles, also called herpes zoster or zoster, is a painful skin rash caused by the varicella zoster virus. This is the same virus that causes chickenpox. After a person recovers from chickenpox, the virus stays in their body and lies inactive along certain nerves. In some people, the virus can become active years later and cause shingles which usually appears as a rash with blisters on one side of the face or body. About 1 in 5 people who get shingles may have severe pain that lasts for months or years after the rash has cleared. Shingles is more common in people over 50 years of age and those with weakened immune systems. Shingles can be prevented by immunization of those 50 years of age and older.
What are the signs and symptoms?	Signs and symptoms of shingles may include: ➤ Pain, itching or tingling of the skin ➤ Fever ➤ Headache ➤ Nausea ➤ Chills ➤ A blister-type rash that develops in the same areas as the pain and tingling. Blisters usually crust over in about 7-10 days and disappear after 2–4 weeks.
How is it spread?	Shingles cannot be spread from one person to another. However, the virus that causes shingles can be spread to another person and cause chickenpox. This is uncommon and requires contact with fluid from the shingles blisters. The virus is not spread through the nose and throat secretions of someone with shingles.
Incubation period	It would take about 10–21 days for a person who has come in contact with fluid from the shingles blisters to develop chickenpox.
When is the person contagious?	For about 7–10 days after the rash appears. Once the rash crusts over, the person is no longer contagious.
How to prevent the spread of the illness to other children	A child with shingles can go to school or a child care centre if the rash is covered and the child feels well enough to attend.

For more information see:

[HealthLink BC File # 111 – Shingles Vaccines](#)

[HealthLink BC Health Topics – Shingles](#)



Streptococcal Infections: Scarlet Fever and Strep Throat

What is it?	Scarlet fever and strep throat are both caused by streptococcal bacteria. Rheumatic fever may occur as a result of untreated streptococcal infection.
What are the signs and symptoms?	Signs and symptoms of scarlet fever and strep throat may include: ➤ A very sore throat ➤ Pain when swallowing ➤ Fever ➤ Headache ➤ Swollen tonsils and lymph glands in the neck ➤ Abdominal pain ➤ Nausea and vomiting Additional symptoms of scarlet fever include: ➤ A red rash that looks like sunburn and feels like rough sandpaper. It most often begins on the chest and stomach and then spreads to the rest of the body. The rash usually lasts 2–7 days. ➤ Peeling of the skin once the rash fades ➤ Red, swollen lips, strawberry-like tongue ➤ Flushed cheeks and pale area around the mouth
How is it spread?	Streptococcal bacteria are spread by: ➤ Breathing in air contaminated with the bacteria when an infected person has coughed or sneezed ➤ Touching the nose and throat secretions of an infected person ➤ Touching objects contaminated with the nose and throat secretions of an infected person ➤ Kissing or sharing food, drinks or anything that is put in the mouth Contaminated food and milk products can be sources of streptococcal outbreaks.
Incubation period	Usually 1–3 days following contact with an infected person.
When is the person contagious?	In untreated cases, 10–21 days. Untreated cases of strep throat may carry the bacteria for weeks or months. A child with a streptococcal infection is no longer contagious after 24 hours of antibiotic treatment.
How to prevent the spread of the illness to other children	A child with strep throat or scarlet fever should be excluded from school or a child care centre until 24 hours after starting antibiotics and they no longer have a fever. Carefully dispose of (or clean, if applicable) articles soiled by the nose and throat secretions of infected children.

For more information see:

[HealthLink BC File #106 – Group A Streptococcal Infections](#)

[HealthLink BC Health Topics – Scarlet Fever](#)

[HealthLink BC Health Topics – Strep Throat](#)



Swimmer's Itch

What is it?	Swimmer's itch is an itchy skin rash caused by an allergic reaction to larvae from a parasite. The larvae of the parasite are released from snails living in the water. When the larvae are released into the water, they swim around looking for a suitable host (e.g., ducks, geese, muskrats, beavers). If a person is swimming or wading in the water, the larvae may burrow into their skin and cause an allergic reaction and rash. The larvae cannot develop in humans, so they soon die. Children are most likely to be affected by swimmer's itch because: ➤ They swim or wade in shallow water where the parasites are found ➤ They are not as likely to towel dry completely each time they come out of the water ➤ Their skin is more sensitive than adults
What are the signs and symptoms?	Signs and symptoms of swimmer's itch may include: ➤ Tingling, burning or itching of the skin (itching can be severe) ➤ Small reddish pimples or blisters Itching may last up to a week or more but will gradually go away. Scratching can lead to secondary infections.
How is it spread?	Swimmer's itch is not spread from person-to-person. It is only spread by swimming or wading in water contaminated with the larvae of certain parasites.
Incubation period	Itching usually begins almost immediately but it can take 12 or more hours for the rash to appear
When is the person contagious?	A person with swimmer's itch is not contagious.
How to prevent the spread of the illness to other children	A child with swimmer's itch may go to school or a child care centre if they feel well enough to attend.

For more information see:

[HealthLink BC File #52 – Swimmer's Itch](#)



Resources

British Columbia Centre for Disease Control

- Information about communicable diseases and health conditions for the public and health care professionals.
- Available at <http://www.bccdc.ca/health-info/diseases-conditions>

HealthLink BC

- Detailed information about the illnesses and infestations described in this guide and other health conditions and infectious diseases
- Available at: <https://www.healthlinkbc.ca>
- Links to:
 - HealthLinkBC Files: <https://www.healthlinkbc.ca/services-and-resources/healthlinkbc-files>
 - Health Topics: <https://www.healthlinkbc.ca/explore-health-topics>

Contact HealthLink BC:

- Anywhere in BC: Phone 8-1-1
- TTY (Deaf and hearing-impaired): phone 7-1-1

Preventing Illness in Child Care Settings

- Written specifically to assist child care facility operators with designing and implementing health and illness policies to guide decision-making about children who are ill
- Available at: <http://www.health.gov.bc.ca/library/publications/year/2003/com018.pdf>

ImmunizeBC

- Information about vaccines, vaccine-preventable diseases and immunization schedules
- Available at <https://immunizebc.ca>
- To locate a health unit you can use the health unit finder at <https://immunizebc.ca/finder>

Caring for Kids

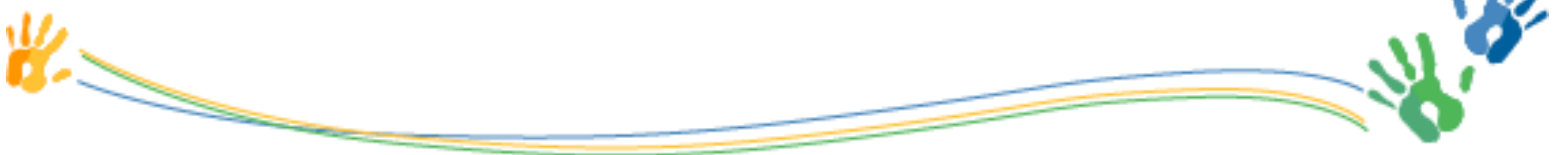
- Information for parents and caregivers about common childhood illnesses from the Canadian Paediatric Society
- Available at: <https://www.caringforkids.cps.ca>

Children's Hospital of Philadelphia, Conditions and Diseases

- Information for parents and caregivers about common childhood illnesses from the Children's Hospital of Philadelphia
- Available at: <https://www.chop.edu/conditions-diseases>

Do Bugs Need Drugs?

- A community education program promoting the wise use of antibiotics. The program includes information about how hand washing can stop the spread of infection and reduce the need for antibiotics. Available at <http://www.dobugsneeddrugs.org/>
- Information for early child care educators is available at: <http://www.dobugsneeddrugs.org/educational-resources/daycare-early-childhood-education/>
- Information for teachers of elementary school students is available at: <http://www.dobugsneeddrugs.org/educational-resources/k-gr3-british-columbia-curriculum/>



References

American Academy of Pediatrics. Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. Red Book: 2018–2021 Report of the Committee of Infectious Diseases. 31st ed. Ithaca, IL: American Academy of Pediatrics; c2018. 1213 p.

BC Centre for Disease Control [Internet]. Vancouver (BC): Provincial Health Services Authority; c2020. Diseases & Conditions. Available from: <http://www.bccdc.ca/health-info/diseases-conditions>.

Canada.ca [Internet]. Ottawa (ON): Government of Canada. 2020 Mar 3. Infectious diseases; 2016 Nov 22. Available from: <https://www.canada.ca/en/public-health/services/infectious-diseases.html>,

Canadian Paediatric Society [Internet]. Ottawa (ON): Canadian Paediatric Society; c2020. Head lice infestations: A clinical update; 2018 Feb 15. Available from: <https://www.cps.ca/en/documents/position/head-lice>.

Caring for Kids [Internet]. Ottawa (ON): Canadian Paediatric Society; c2021. Health Conditions & Treatments. Available from: <https://www.caringforkids.cps.ca/handouts/health-conditions-and-treatments>.

Centers for Disease Control and Prevention [Internet]. Washington (DC): U.S. Department of Health and Human Services. Diseases & conditions. Available from: <https://www.cdc.gov/DiseasesConditions/>.

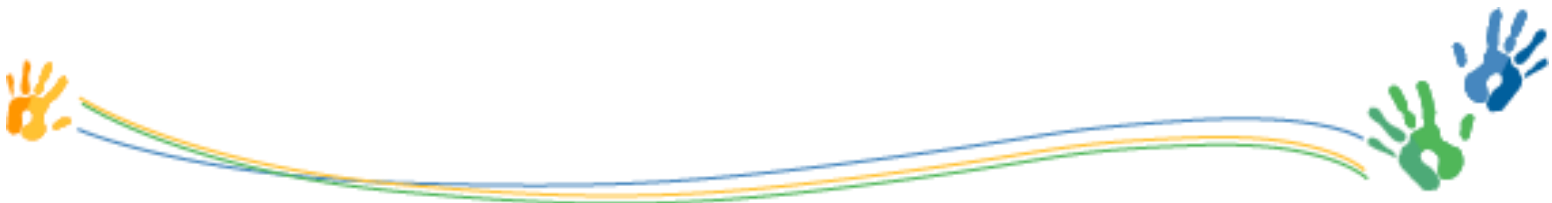
Children's Hospital of Philadelphia [Internet]. Philadelphia (PA): The Children's Hospital of Philadelphia; c2020. Conditions and diseases. Available from: <https://www.chop.edu/conditions-diseases>.

Do Bugs Need Drugs? [Internet]. Vancouver (BC): Do Bugs Need Drugs?; c2020 [modified 2019 Dec 14]. Available from: <http://www.dobugsneeddrugs.org/>.

Hamborsky J, Kroger A, Wolfe S, editors. Epidemiology and Prevention of Vaccine-Preventable Diseases [Internet]. 13th ed. Washington (DC): Public Health Foundation; 2015. [reviewed 2019 Apr 15]. Available from: <https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>.

Heymann DL, editor. Control of communicable diseases manual. 20th ed. Washington: American Public Health Association; c2015. 729 p.

National Advisory Committee on Immunization. Canadian Immunization Guide [Internet]. Evergreen ed. Ottawa (ON): Public Health Agency of Canada; 2012 [modified 2016 Sep 1]. Part 4 – Active Vaccines. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines.html>.





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