

Childhood Contagious Diseases(5)

Children have maturing immune systems and are often in close proximity to one another, such as in day-care centers, classrooms, and on school busses. This makes the transmission of contagious diseases particularly easy and explains, in part, why these diseases are so common in children. Contagious diseases are often caused by the spread of bacteria (such as in scarlet fever) or viruses (such as in chickenpox, measles) in droplets of saliva and mucus, when coughing or sneezing.

Contagious diseases may also occur by coming •
in close personal contact with another
infected person or even by sharing personal
items of an infected person

- Fortunately, many childhood diseases, once contracted, result in lifelong immunity in the infected child. However, this is not always the case. Vaccinations also provide immunity to some of the contagious diseases.

Erythema Infectiosum

also called slapped-cheek disease, is a common illness in young children due to infection with parvovirus . The disease is spread by contact with infected children by exposure to respiratory secretions . The illness lasts approximately 5 days, but the rash may keep coming back for a few weeks, particularly with exercise, heat, fever, or stress. •

The first stage of erythema infectiosum includes firm, red cheeks that feel warm, appearing like "slapped cheeks." •



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- Who's At Risk

occurs all over the world. Lab studies show •
that about half of adults have been infected,
although they may never remember being ill.
The disease is common in pre-school and
school-age children.

- Signs and Symptoms

Bright redness of the cheeks is the classic • initial sign, without affecting the areas around the mouth. About a day later, the rash shows up as a faint red, rash on the trunk, arms, and legs. There may also be a fever or joint pain

- Self-Care Guidelines
- If your child has the disease, it is not necessary to keep him or her away from other people because the infection is contagious before the rash appears, not after.
Notify any pregnant women who have been around your child that they have been exposed so they can notify their doctor.
You may give your child acetaminophen or ibuprofen for fever or joint pain as needed.
- No treatment is required, as this illness will go away on its own.

Roseola

Also known as roseola infantum, is a mild • illness that mainly affects children that will go away on its own. Roseola is caused by viruses of the herpes type. Infected children have a few days of high fever followed by a rash as the fever goes down. The rash usually lasts 1–2 days, or it may go away more quickly.



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- Who's At Risk
- Roseola commonly occurs in children under 3. maternal antibodies protect the child from getting roseola before the age of 6 months; however, it can occur in children between the ages of 3 months to 4 years.

- Signs and Symptoms
- If your child is otherwise well but has a high fever for 4 days, followed by a rash on the trunk, he or she likely has roseola.

The fever that accompanies roseola is followed immediately by the appearance of rose-pink, flat or slightly raised bumps 2–3 mm in diameter that begin on the trunk and may spread to the neck as well as the arms and legs .

- Self-Care Guidelines
- Roseola goes away without any treatment. However, you might:
- Control the child's fever with acetaminophen and cool sponge baths.
- Encourage the child to drink fluids to avoid dehydration.
- There is no way to prevent roseola from spreading because it is contagious before any symptoms appear.
- There is no specific treatment for roseola other than measures to control fever.

Measles

Measles is a highly contagious infection • of the respiratory system that is caused by a virus. The incubation period is about 10 days. This child then has 3 or 4 days of cold-like symptoms, followed by a rash . Child usually is well after 2 weeks of illness and then has life-long immunity .

Complications from measles more commonly occur in children aged younger than 5 and adults older than 20. •

Serious complications of measles include : •

1)blindness •

2)Encephalitis •

3)severe diarrhea and dehydration •

4)ear infection •

5)severe respiratory infections. •

The most common cause of death associated with measles is from pneumonia. The majority of deaths from measles occur in developing countries •



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- Who's At Risk

it occurs all over the world, primarily in late winter and spring.

- Signs and Symptoms
- The first signs of infection are a cough, runny nose, fever, and red, watery eyes.
- A small red spots with blue-white centers appear inside the mouth ("Koplik spots").
- After 3–4 days, a rash begins with red spots, first appearing behind the ears and at the forehead, spreading down the neck, arms, trunk, and finally the legs. The red spots can merge together on the face. Measles does not usually itch.

- Self-Care Guidelines
- Make sure everyone in contact with the ill child has been vaccinated against measles or had measles in the past.
- Treat fever with acetaminophen or ibuprofen.
- Encourage the child to drink fluid and to rest.

- When to Seek Medical Care
- Call your child's doctor if you think he or she has measles, particularly if the child is an infant or has any medication or condition that weakens the immune system.
- Call the doctor immediately if the child has problems breathing, confusion, vision problems, or pain in the chest or belly.
- There are no medications to cure measles, but the doctor can recommend ways to reduce symptoms such as fever, cough, or itching.

Chickenpox

Chickenpox (varicella) is an infectious disease • caused by the varicella-zoster virus that goes away on its own. Infection spreads among humans through fluids from the airways, such as from coughing and sneezing, with non-infected household members at high risk of becoming infected as well. The incubation period is 14–16 days, and the first sign of disease is a rash. People are considered contagious for 2–5 days before the onset of skin lesions and for 6 days after the last series of rashes have appeared.

- The most common complication is infection of lesions with bacteria. Children who have weak immune systems, eczema, or recent sunburns have more severe symptoms. Because the virus remains resting (latent) in the parts of nerves that are near the spinal cord (nerve roots) for life, about 1 in 10 adults will get shingles (zoster) when the virus reappears, usually under conditions of stress to the body.
- After having chickenpox, a person is usually immune for life, although reinfection is possible.

- Who's At Risk
- Chickenpox occurs most commonly in children under 10.

- Signs and Symptoms
- Most children act sick with fever and vague symptoms (loss of appetite, headache, abdominal ache) for 1–2 days before they start to break out with a rash. These symptoms last for 2–4 days after the rash appears.

An early pink-to-red, flat, small spot rapidly becomes bumpy and then blisters with a surrounding halo of redness. The spots usually appear first on the trunk or scalp. Linings of body cavities, such as the mouth or nose (mucous membranes), palms, and soles, can have a few lesions. The average child develops a few hundred blisters, most of which heal without leaving scars.

Blisters become cloudy and then crust •
over, with healing completed within 1–3
weeks. Lesions often occur in 3 or more
successive series (crops). Lesions in
different stages of development may
occur at the same time.

- Self-Care Guidelines
- Since the illness resolves on its own after 1–3 weeks, it is most important to keep the child comfortable and to discourage scratching, which can cause infection and scars.

For itching:

- Oral antihistamines
- Clip the child's fingernails
- Apply calamine lotion

For pain and fever:

DO NOT USE aspirin. Use acetaminophen or ibuprofen instead.

Because chickenpox is highly contagious, keep the child at home and resting until symptoms are gone and all blisters are dried up. Avoid any contact between your child and pregnant women who have never had chickenpox, newborns, or people who have a weak immune system or eczema. Once all the blisters have dried up into scabs, the child is not considered contagious to others.

Most infections do not require treatment. •

If there are adults or teens in the household who have never had chickenpox or people with eczema, asthma, or a weakened immune system, have them contact their doctor, as they may require antiviral medication.

- Call your child's doctor if:
- He or she has eczema, asthma, or a weakened immune system.
- The fever lasts more than 4 days or exceeds 102 degrees Fahrenheit.
- Any rash areas look red, swollen, and leak pus.
- He or she has a severe cough, vomiting, headache, drowsiness, confusion, stiff neck, trouble looking at bright lights, or difficulty walking or breathing.
- Treatments :
- Antiviral medication may be given if the child is seen early (during the first day of the rash) for children at higher risk for more severe chickenpox infection (those with asthma, eczema, recent sunburn, children taking aspirin or corticosteroids on a regular basis, and those with weak immune systems).



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Scarlet Fever

Scarlet fever is an infection with a type of • bacteria called *Streptococcus*, which not only causes a throat infection , but also produces a poison (toxin) causing the distinctive rash of scarlet fever. Some people are more sensitive to the toxin than others, so not everyone in a family who is infected will have the rash, even if they have the throat infection. Sometimes the area of infection is the skin rather than the throat, a condition called impetigo.

- Who's At Risk
- Scarlet fever is rare in children under the age of 2 years, because antibodies from the mother's immune system protect the child up to that age.
- The peak ages for infection are 4–8 years. By age 10, most children have developed their own immunity to the toxin.
- Because infection is spread by respiratory secretions, infection rates are higher in crowded situations.
Scarlet fever is contagious to people who come into close contact with an infected child.
Complications are rare but can include:
 - deeper tissue infections
 - rheumatic fever
 - kidney disease.

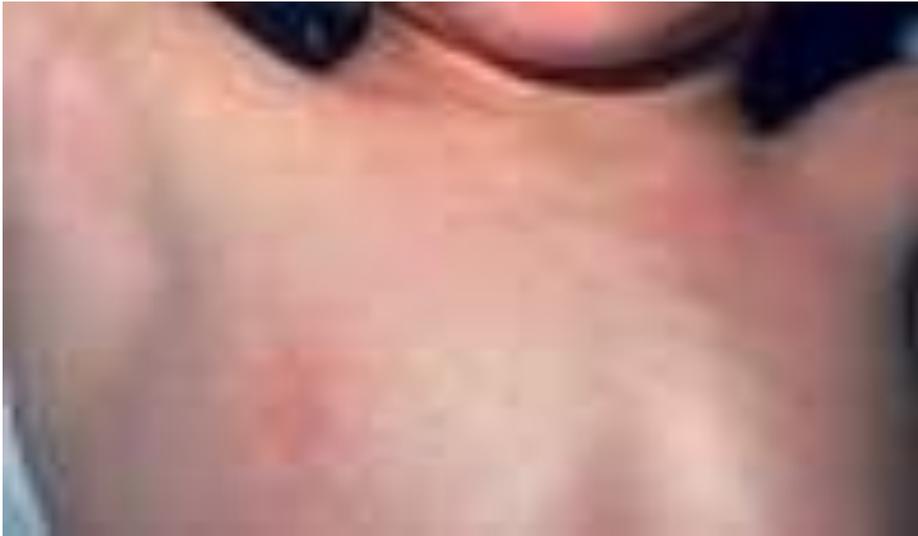
- Signs and Symptoms
- Scarlet fever is accompanied by a sandpaper-like rash of 1–2 mm red bumps, which merge together, starting on the neck, then moving to the trunk, and finally to the arms and legs . It is a bit itchy. If scarlet fever develops on body creases (armpits, elbow folds), red streaks may appear. Fever, chills, body aches, nausea, vomiting, and loss of appetite may occur.

- Self-Care Guidelines
- It is difficult to avoid infection of others who are not immune in the household. However, you might try to:
- Keep eating and clothing items used by an ill child away from other people, and wash them in hot soapy water.
- The child's caregivers should wash their hands frequently.
- Keep the child comfortable with acetaminophen for fever relief.
- Have your child eat soft foods, drink plenty of liquids, and apply lotions such as calamine for itching, if needed.

- When to Seek Medical Care
- Call your child's doctor if you suspect that the child may have scarlet fever.
- If *Streptococcus* infection is confirmed, antibiotics will be prescribed, to be taken for about 10 days.



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German Measles

German measles (rubella) is caused by the rubella virus and spreads among humans through contact with respiratory secretion. The incubation period of German measles is 14–21 days and a rash accompanied by fever appears 1–7 days later. German measles occurs more commonly in the spring and summer months. Even in a person with a weak immune system, German measles is usually a mild illness. However, if a pregnant woman becomes infected, German measles can cause severe damage to the fetus .

- Who's At Risk
- There is a higher incidence of German measles in people who are in confined situations such as military bases and schools.

- Signs and Symptoms
- irritability, fatigue, headache, fever, and minor respiratory symptoms 1–7 days before the rash appears. Lymph nodes in the neck and other areas may become swollen.
- Children may have pain when trying to move their eyes .
- Pink, flat spots begin to appear on the face. Within one day, the rash fades from the face and spreads to the trunk and extremities.

- The pink, flat spots (macules) merge together on the trunk but remain separated (discrete) on the extremities.
- Peeling often occurs later in the rash areas.
- The rash may itch, and it is usually gone in about 3 days. As many as 25% of outbreaks may have no rash.
- The affected child is contagious to others from a week before to a week after the rash appears.

- Self-Care Guidelines
- German measles is generally mild, and an affected child can be cared for at home.
- To relieve discomfort and fever, give the child acetaminophen .
- Avoid contact between the child and any woman who might be pregnant. If there is contact, tell the woman to call her doctor for advice.



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