

Chickenpox (Varicella)

What is chickenpox?

Chickenpox, also called varicella, is an itchy rash illness caused by a virus.

What are the symptoms of chickenpox?

Rash is often the first sign of disease in children. Adults may have fatigue and fever one to two days before the rash. In unvaccinated individuals, the rash appears as red-raised spots that turn into itchy, fluid-filled vesicles. Fluid may drain from vesicles before they dry and crust. New crops of spots develop over several days, and spots in several stages of development are present at the same time.

Vaccinated individuals who develop chickenpox usually have mild symptoms with fewer than 50 spots (that rarely contain fluid), shorter duration of illness, and low or no fever.

What are the complications of chickenpox?

Complications of chickenpox include:

- Skin and soft tissue infections
- Dehydration
- Pneumonia
- Encephalitis (inflammation of the brain)

Most healthy children and adults recover from chickenpox without additional health problems. Severe disease is more likely to occur in the following:

- Infants less than 1 year of age
- Persons 15 years of age and older
- Persons with weakened immune systems
- Pregnant women
- The fetuses of women who develop chickenpox during pregnancy. The risk of fetal complications has been shown to be low (less than 2%), but is highest when pregnant women develop chickenpox during 13-20 weeks' gestation.
- Newborns whose mothers develop chickenpox rash from 5 days before to 2 days after delivery.

Since the vaccine became available in the United States, chickenpox-related deaths have declined from 115 in 1995 to 16 in 2003. Before vaccine was available, 11,000 people were hospitalized each year. Two studies have shown that hospitalizations

have declined 75% from 1993 to 2001 and 88% from 1994 to 2004.

Who gets chickenpox?

Before the chickenpox vaccine became available in 1995, almost everyone got chickenpox. Most people have life-long immunity after recovering from chickenpox disease. Anyone who has not had chickenpox disease and has not received the chickenpox vaccine can get chickenpox. However, no vaccine is 100% effective and some individuals who have been vaccinated can get chickenpox.

How is chickenpox diagnosed?

The diagnosis of chickenpox is based on the presence of the blister-like rash and a history of exposure. Chickenpox can be confirmed by testing a sample of fluid from a blister; however, lab testing is not routinely done.

Is there a treatment for chickenpox?

Healthcare providers may prescribe an antiviral medication to individuals at risk for more serious disease. If started within 24 hours of rash onset, antiviral medications may reduce the number of days over which new lesions appear, the duration of fever, and other symptoms.

Other treatments may help reduce and relieve symptoms. Calamine lotion and Aveeno (oatmeal) baths may help relieve some of the itching. **Aspirin or aspirin-containing products should not be used to relieve fever in children.** The use of aspirin has been associated with development of Reye syndrome (a severe disease affecting all organs, but most seriously affecting the liver and brain, and may cause death). Non-aspirin medications such as acetaminophen (commonly known as Tylenol[®]) are recommended.

Is there a vaccine for chickenpox?

Yes. Vaccination recommendations include the following:

- All children less than 13 years of age should get two doses of chickenpox vaccine if they have never had chickenpox disease. They should get their first dose between 12 and 15 months and the second dose at 4 to 6 years of age.
- All adolescents 13 years of age and older and adults, especially non-pregnant women of childbearing age, who have never had

Chickenpox (Varicella) – page 2

chickenpox and have never been vaccinated, should get two doses 4 to 8 weeks apart.

- A second catch-up chickenpox dose is recommended for children, adolescents, and adults who previously had only one dose.
- Pregnant women who are not known to be immune should be vaccinated **after** their baby is born. Chickenpox vaccine should not be given to women during pregnancy.
- During a chickenpox outbreak, people who have only received one dose of vaccine should receive a second dose.

How do I know if I am immune to chickenpox?

Most adults have had chickenpox disease and are immune to chickenpox. Children may be immune due to vaccination or disease. Evidence of immunity to chickenpox includes any of the following:

- Documentation of age-appropriate vaccination.
 - Preschool children older than 12 months of age: 1 dose
 - School-aged children, adolescents, and adults: 2 doses
- Laboratory evidence of immunity or laboratory confirmation of disease.
- Born in the United States before 1980 (except for health-care personnel, pregnant women, and immunocompromised persons, for whom more stringent criteria are appropriate).
- Diagnosis or verification of a history of chickenpox or shingles disease by a health-care provider.

How effective is the chickenpox vaccine?

Studies have repeatedly shown that one dose of varicella vaccine is 70-90 percent effective in preventing chickenpox and 95 percent effective in preventing severe illness. One study has investigated the effectiveness of two doses of the vaccine. Two doses were found to be 98 percent effective in preventing chickenpox and essentially 100 percent effective in preventing severe illness.

How is chickenpox spread?

Chickenpox spreads very easily from person to person by direct contact with fluid from blisters or

through the air when someone with chickenpox coughs or sneezes.

The time period between exposure and the onset of illness is usually 14 to 16 days, but can range from 10 to 21 days.

Chickenpox is hard to recognize in those who have been vaccinated because the rash may be very mild. Vaccinated persons who get chickenpox are infectious to others and need to stay home while ill.

When and for how long is a person able to spread chickenpox?

- A person with chickenpox can spread the virus to others from 1 to 2 days before the rash appears until all blisters have formed scabs. This usually takes until 4 to 7 days after the rash appears.
- Vaccinated individuals who develop chickenpox are also considered infectious; however, most cases have fewer spots, which rarely contain fluid. These cases can spread the virus until all spots have faded or no new spots have developed within a 24-hour period, whichever is later.

What can be done to prevent the spread of chickenpox?

Vaccination is the best way to prevent the spread of chickenpox.

In addition, avoid close contact with others who are ill, wash hands often and stay at home if ill.

Chickenpox in children is usually not serious. Why not let children get the disease?

It is never possible to predict who will have a mild case of chickenpox and who will have a serious or even deadly case of disease. Now that safe and effective vaccine is available, it is not worth taking this chance.



Vaccine-Preventable Disease Surveillance
P.O. Box 64975
St. Paul, MN 55164-0975
651-201-5414 or 1-877-676-5414
www.health.state.mn.us/immunize