

Chickenpox

What is chickenpox?

Chickenpox, a highly contagious disease caused by a virus called varicella zoster, is one of the most commonly reported childhood diseases. Usually mild and not life-threatening to otherwise healthy children, it may be severe in infants, adults and persons with impaired immune systems. Infection confers long immunity; second attacks are rare.

How is chickenpox spread?

Chickenpox is one of the most readily communicable diseases. It can be spread from person to person by direct contact with fluid from the blisters or with secretions from the respiratory tract or by handling an infected person's clothing or bedding. Airborne transmission is possible through sneezing and coughing. Susceptibility to chickenpox is universal among those not previously infected. The greatest number of cases occur in the winter and early spring.

What are the symptoms of chickenpox?

Symptoms, which usually start about two weeks after exposure (range is 10 to 21 days), include a fever, a feeling of tiredness and an itchy rash. The rash--or the pox--generally starts as little red spots on the chest, stomach or back and then on the face. The infected person may get only a few spots or a cluster of spots, or he or she may develop hundreds of spots during the first three to five days of the rash. The spots change into clear blisters filled with fluid. These blisters become cloudy, can break open and form a crust or scab in two to four days. The scabs can be very itchy. Chickenpox is contagious one to two days before the rash appears and until all blisters have formed scabs.

Who is most at risk of complications from chickenpox?

Children usually do not develop complications. Those at increased risk for complications (generally pneumonia or bacterial infection of lesions) are immunocompromised persons, infants younger than 1 year of age, adolescents and adults, newborns whose mothers had chickenpox around the time of delivery, or premature infants whose mothers have not had chickenpox. Approximately one in every 400 persons who get chickenpox requires hospitalization. There are about 90 deaths a year from chickenpox in the United States.

Chickenpox infection apparently remains latent and may recur years later as herpes zoster (shingles). The incidence of shingles increases with age. Persons with HIV infection are also at increased risk of shingles.

Is there a vaccine for chickenpox?

In 1995, the federal Food and Drug Administration approved a vaccine to immunize children and other susceptible individuals against chickenpox. Children vaccinated at 12 months through 12 years of age require one dose. After age 13, natural varicella is more severe, complications are more frequent, and two doses of vaccine, given four to eight weeks apart, are needed.

All adolescents 13 years of age and older and adults who may be susceptible to chickenpox should be assessed for possible vaccination. Specific efforts should be focused on those at highest risk of exposure and of transmitting disease to others. Vaccination is recommended for susceptible persons who will have close contact with persons at high risk for serious complications. This includes health care workers and susceptible family contacts of immunocompromised individuals.

Vaccination should be considered for susceptible persons in the following groups who are at high risk of exposure:

- Persons who live or work in environments in which there is a high likelihood of transmission of chickenpox; for example, teachers of young children, day care workers, and residents and staff in institutional settings.
- Persons who live or work in environments in which transmission of chickenpox may occur, for example, college students, inmates and staff of correctional institutions and military personnel.
- Nonpregnant women of childbearing age. Women should be asked if they are pregnant and advised to avoid pregnancy for one month following each dose of vaccine.
- International travelers. Immunization should be considered for international travelers without evidence of immunity to the chickenpox virus, especially if they expect to have close personal contact with local populations. Chickenpox is endemic in most countries throughout the world.

Is vaccination for chickenpox required for attendance in day care and schools?

Yes, effective July 1, 2002, the following children are required to show proof of immunity to varicella:

- Children 2 years of age and older entering a child care facility, a school operated program below the kindergarten level or a Head Start center for the first time on or after July 1, 2002. Children who have attended a child care facility prior to July 1, 2002, but enroll in a new facility on or after July 1, 2002, must comply with the varicella requirement.
- Children entering kindergarten for the first time on or after July 1, 2002 (effective 2002-2003 school year).
- Children entering for the first time on or after July 1, 2002, a school program where grade levels are not assigned must be immunized if they will reach 5 years of age prior to the 2002-2003 school year.

The immunization rules allow doctors, health officials (for example, local health department staff) and child care or school health professionals (for example, school nurses or health aides) to verify that a parent's or legal guardian's description of chickenpox disease history indicates past infection and to accept such history as documentation that a child has had the disease. If a parent indicates on the child health exam form that the child has had chickenpox, a health care provider must still verify this, including the date (or approximate date) of illness, and sign the health exam form. Laboratory evidence of past varicella infection is also acceptable.

If exposure occurs, can chickenpox be prevented?

Some newborn babies, any immunodeficient child, and any susceptible persons older than 14 years of age who have not had chickenpox before may need a shot of varicella-zoster immune globulin (VZIG) to try to prevent chickenpox after being exposed. VZIG needs to be given as soon as possible but within 96 hours after exposure to chickenpox.

How is chickenpox treated?

If a person develops chickenpox, acetaminophen can be given to reduce fever. Do not give aspirin to young children; it may cause Reye syndrome. Calamine lotion and antihistamines can help reduce itching.

Acyclovir is a drug that is now given to some people within the first day after rash onset to make the symptoms of chickenpox milder. Check with your physician.