



**CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
DIVISION OF DISEASE CONTROL**

## **CHICKENPOX (Varicella)**

### **What is chickenpox?**

Chickenpox (also known as varicella) is an infection caused by the varicella-zoster virus (VZV), a member of the herpes virus family. Varicella is highly contagious and is the most commonly reported childhood disease.

### **What are the symptoms of chickenpox?**

Initial symptoms include a fever of up to 102°F and a general feeling of tiredness followed by a rash occurring 1-3 days later. The rash usually appears as itchy blisters that appear first on the scalp, then on the chest and back (where the rash tends to be heaviest), and finally on the arms and legs. The blisters crust over and fall off usually within six days from first appearance. The disease is usually mild in children, with severity increasing among persons with weakened immune systems, infants less than one year of age, and adults.

### **How is chickenpox spread?**

Chickenpox is spread when a person susceptible (not immune) to chickenpox comes in direct contact with the secretions (saliva, airborne discharge from the nose, or discharges from the lesions) of a person already infected with chickenpox. Pregnant women who develop chickenpox can also transmit disease to their unborn or newborn babies.

### **How soon after infection do symptoms appear?**

Symptoms commonly appear 14-16 days after infection, with a range of 10-21 days.

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

A person is able to transmit chickenpox from 1-3 days before the onset of the rash until the time when the blisters crust over (scab), usually no more than six days after the appearance of the rash. The scabs from the chickenpox rash are not infectious.

## Who gets chickenpox?

Chickenpox only exists in humans and is highly infectious (9 out of 10 susceptible persons in close contact with an infectious person – such as school or house mates – develop chickenpox themselves). Before the licensure of varicella vaccine in 1995, almost everyone developed chickenpox, usually as children when exposed in child-care or elementary school. Chickenpox is so highly infectious that at least 90 percent of persons developed chickenpox before 15 years of age.

## Does past infection with chickenpox make a person immune?

Chickenpox generally results in lifelong immunity, but in rare cases some persons – especially those with weakened immune systems – can develop chickenpox again. Much more common is for the varicella-zoster virus to recur as herpes zoster. Herpes zoster (commonly referred to as shingles) is the recurring infection caused by VZV, usually in older persons, or in persons of any age whose immune systems are weakened.

## What are the complications associated with chickenpox?

Some persons who have chickenpox develop bacterial infections around their lesions which in rare cases may result in hospitalization or death. Other complications of chickenpox include extreme dehydration, encephalitis (swelling of the brain), and pneumonia. Unborn babies whose mothers develop chickenpox during their first 20 weeks of pregnancy may develop deformities of the skin, muscles, bones, eyes, and brain. This is referred to as congenital varicella syndrome. Newborn babies exposed to chickenpox during birth often develop overwhelming infections, leading to death in approximately 30% of these newborns. This is known as perinatal varicella. Persons with weakened or underdeveloped immune systems are at increased risk of developing complications relating to chickenpox.

## Is there a vaccine for chickenpox?

Yes. A vaccine to protect against chickenpox was first licensed in the U.S. in 1995. It is recommended for most persons 12 months of age and older who have never had chickenpox. (Some persons with weakened immune systems or with severe allergies to vaccine ingredients and pregnant women should not receive the vaccine. Ask your doctor or nurse for additional information about the chickenpox vaccine). Children 12 months to 12 years of age need only 1 dose of vaccine, while persons 13 years of age and older need 2 doses of varicella vaccine, with the doses separated by at least 4 weeks.

## **What can be done to prevent the spread of chickenpox?**

The best way to prevent spread to susceptible persons is to vaccinate those medically eligible with the varicella vaccine. Even after exposure, the varicella vaccine, may still be effective in preventing disease if the vaccine is administered within five days of exposure to chickenpox. Immunodeficient or pregnant women can be given varicella-zoster immune globulin (VZIG) within five days of exposure to chickenpox to prevent or significantly modify the disease. Individuals infected with the disease should remain home and avoid exposing others who may be susceptible until after the rash has crusted over (scabbed). Care should be especially taken to avoid exposing persons who are at higher risk of developing complications and who cannot get the vaccination, such as infants, pregnant women, and those with weak immune systems.