

Varicella (Chickenpox)

The Disease

Varicella — or chickenpox — is one of the most common childhood diseases. It is caused by the *varicella-zoster* virus. Most people in the United States get chickenpox while they are still children. Until the late 1990's there were about 4 million cases a year. But now that people are using varicella vaccine, that number has begun to drop.

The most recognizable feature of chickenpox is an itchy rash all over the body. Children with chickenpox can also be drowsy and have a fever.

Chickenpox Fact: The reason varicella is called chickenpox has nothing to do with chickens. Chickenpox got its nickname because the blisters look like **chick peas**.

Chickenpox can be spread very easily from person to person. It is spread through the air, by coughing or sneezing, or even talking. It can also be spread by contact with fluid from the blisters. It usually takes 2-3 weeks from the time a child is exposed to chickenpox virus until he or she becomes ill. The disease is contagious from 1 or 2 days before the rash appears until all the blisters are dried up, which usually takes 4 to 5 days.

Chickenpox is usually a mild disease, uncomfortable but not dangerous. Still, serious problems do occur. The blisters can become infected, and some children get encephalitis (infection of the brain). Of every 100,000 infants under one year old who get chickenpox, about 4 die. For older children, 1 to 14 years old, about 1 in 100,000 dies. If a woman gets chickenpox just before or after giving birth, her baby can get very sick, and about 1 in 3 of these children die if they are not treated quickly.

Even when chickenpox is not serious, it can create problems for the family because the parents may have to miss work to care for the sick child. About 1 child out of 500 who get chickenpox must be hospitalized. For adults who get chickenpox, 1 in 50 must be hospitalized.

After a person has chickenpox, the virus stays in the body. Years later, it can cause a painful disease called zoster, or shingles.

Varicella Immunization

Varicella vaccine is a live-virus vaccine. It has been used in some parts of the world, such as Japan, for over 20 years. It was licensed in the United States in 1995.

A single dose of varicella vaccine is recommended for children between 12 and 18 months of age. It is usually given at the same time as the MMR shot. Children who miss this shot can still get a single dose of the vaccine up to their 13th birthday. Adolescents or adults who haven't gotten the vaccine by their 13th birthday will need two doses, 4 to 8 weeks apart. A child who has already had chickenpox disease does not need to get the shot.

It appears that the vaccine prevents chickenpox in about 70% to 90% of people who get the shot, and prevents *severe* chickenpox in over 95%. The vaccine used in Japan is still protecting those people who were vaccinated 20 years ago. In the United States, people who were vaccinated during testing, before the vaccine was licensed, are still immune to chickenpox. The vaccine is expected to give life-long immunity.

Occasionally even children who respond to the vaccine get a very mild case of chickenpox (about 1-2 children out of a hundred).

There is some concern that a child who gets chickenpox vaccine can actually give chickenpox to other, unprotected, family members. This appears to happen extremely rarely, and only when the child who was vaccinated develops a rash. To be safe, anyone with a suppressed immune system should consider avoiding contact with a child who develops a rash after getting the chickenpox vaccination - just as they should avoid anyone who has a case of chickenpox.

Side Effects from Varicella Immunization

Varicella vaccine is very safe. Some children (about 1 out of 5) get red or sore where the shot was given. Some children also get a mild rash (about 5 spots), about 1 to 3 weeks after the shot. Febrile seizures (seizures caused by fever) have occurred in less than 1 out of a thousand children; and other serious problems, such as inflammation of the brain (encephalitis) or loss of muscle coordination, have been reported very rarely. These problems happen so rarely that experts cannot tell whether or not they are caused by the vaccine, or just happen at the same time by chance.

Like any vaccine, or medicine, varicella vaccine could theoretically trigger a serious reaction in someone who is allergic to one of its components. But severe allergic reactions

to childhood vaccines are very rare (estimated at around one per million doses), and no child is ever known to have died from an allergic reaction to a vaccine.

Precautions

There are several reasons a doctor might want to delay giving a child a varicella vaccination or not give it at all:

- A child who is known to have a **severe allergy** to gelatin or the antibiotic neomycin should not get varicella vaccine.
- A child who had a life-threatening **allergic reaction** after a dose of varicella vaccine should not get another dose.
- A child with a **suppressed immune system** (because of a disease such as cancer or HIV infection, or medication such as steroids) should be evaluated by a doctor before getting varicella vaccine.
- A child who has recently gotten a **transfusion or other blood product** might have to wait several months before getting varicella vaccine.
- A child who has a **moderate or severe illness** on the day a varicella (or any) vaccination is scheduled should probably delay the vaccination until he or she has recovered.

After Getting Varicella Vaccine . . .

If the child has **any** serious or unusual problem after getting varicella vaccine, or any other vaccine, call a doctor or get the child to a doctor right away.