



**Chickenpox Vaccination Program  
Question and Answers**

Prepared by

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## **Chickenpox Vaccination Program Questions and Answers**

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*Adapted from the Immunization Action Coalition (with permission) and the Centers for Disease Control and Prevention (CDC).*

## Chickenpox – The Disease

### Overview

#### 1) What causes chickenpox?

Chickenpox is caused by a virus, the varicella-zoster virus (VZV). VZV causes both varicella (chickenpox) and zoster (shingles). VZV is a member of the herpes virus family, similar to herpes-simplex virus.

#### 2) How common is chickenpox in the United States?

Because it is so easy to catch chickenpox, about 95% of adults in the United States have been infected. Until a vaccine became available, there were an estimated four million cases of chickenpox per year. Although 95% sounds like a big number, about 200,000 American adults born in any given year are susceptible to chickenpox.

#### 3) How does chickenpox spread from one person to another?

Chickenpox spreads from person to person by direct contact or through the air by coughing or sneezing. Chickenpox is highly contagious. It can also be spread by touching the fluid from a blister of a person with chickenpox, or from direct contact with a sore from a person with shingles.

#### 4) How long is a person with chickenpox contagious?

Patients with chickenpox are contagious for 1-2 days before the rash appears and continue to be contagious until all the blisters are crusted over (usually 6-8 days).

#### 5) Is there a treatment for chickenpox?

Most cases of chickenpox in otherwise healthy children are treated with bed rest, fluids, and medications to control fever and itching. Children with chickenpox should NOT receive aspirin, because aspirin may increase the risk of Reye's syndrome (a rare and serious childhood disease that can be life-threatening). The recommended medication for fever control is acetaminophen (Tylenol®). Chickenpox may be treated with an antiviral drug in serious cases, depending on the patient's age, health, the extent of the infection, and the timing of the treatment.

Varicella vaccine can prevent chickenpox. Most people who receive varicella vaccine will not get chickenpox.

#### 6) Can you get chickenpox more than once?

Most people become immune to chickenpox after having the disease. However, second cases of chickenpox do occur. The frequency of second cases is not known with certainty, but this appears to be an uncommon event.

#### 7) If I think someone has been exposed to chickenpox, what should I do as a medic or corpsman?

If the person has had chickenpox or has been vaccinated, nothing needs to be done. A susceptible person (one who has never had chickenpox) should receive the chickenpox vaccine as soon as possible after being exposed to the virus (within three days, and possibly up to five days). There is evidence that the vaccine may prevent illness or reduce the seriousness of the disease, if given within this time frame. Even if the person was not infected with the chickenpox virus from the exposure, receiving the vaccination will prevent future disease.

#### 8) Can the vaccine protect you if you've already been exposed to chickenpox?

Yes, it is 70% to 100% effective, if given within 72 hours of exposure.

### **9) How are chickenpox and shingles related?**

Both chickenpox and shingles are caused by the same virus. After a person has had chickenpox, the virus stays in the body permanently, inside the nerves. About 10% to 20% of people infected with chickenpox later develop the disease known as herpes zoster, or shingles. Symptoms of shingles are pain, itching, blisters, and loss of feeling along a nerve. Most cases occur in people older than 50, and the risk of developing shingles increases with age.

## **Chickenpox Disease – Symptoms**

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

The most common symptoms of chickenpox are rash, fever, coughing, fussiness, headache, and loss of appetite. The rash usually develops on the scalp and trunk, and then spreads to the face, arms, and legs. The rash usually forms 200 to 500 itchy blisters in several successive crops. The rash may even spread into the mouth or other internal parts of the body.

### **2) How do I know if someone has chickenpox?**

Usually chickenpox can be diagnosed by disease history and appearance alone. Adults who need to know if they've had chickenpox in the past can have this determined by a blood test.

### **3) How long does it take to show signs of chickenpox after being exposed?**

It takes from 10 to 21 days to develop symptoms after being exposed to a person infected with chickenpox. The usual time period is 14 to 16 days.

### **4) How long is a person with chickenpox contagious?**

Patients with chickenpox are contagious for 1 to 2 days before the rash appears and continue to be contagious until all the blisters are crusted over (usually 6 to 8 days).

### **5) How long does chickenpox last?**

The illness usually lasts about 5 to 10 days.

## **Chickenpox Disease – Complications**

### **1) How serious is chickenpox?**

Many cases of chickenpox are mild, but deaths from chickenpox can occur. Before the development of a vaccine, about 100 people died every year in the United States from chickenpox. Most of these people were previously healthy. Chickenpox also accounted for about 11,000 hospitalizations each year. Even children with average cases of chickenpox are uncomfortable and need to be kept out of daycare or school for a week or more.

### **2) What are possible complications from chickenpox?**

The most common complication is bacterial infection of the skin or other parts of the body, including the bones, lungs, joints, and blood. The virus can also lead to pneumonia or infection of the brain. These complications are rare but serious. Complications are more common in infants, adults, and people with weakened immune systems.

Chickenpox poses a significant threat to immunocompromised people. The best way to prevent infection in each patient is by immunizing susceptible family members and close contacts of the person.

## Chickenpox – The Vaccine

### Overview

#### **1) Who recommends this vaccine be given to children and susceptible adults?**

The Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) have all recommended this vaccine.

#### **2) When did the chickenpox vaccine become available?**

The chickenpox (varicella) vaccine was licensed for use in Japan and Korea in 1988 and in the United States in 1995.

#### **3) What kind of vaccine is it?**

The chickenpox (varicella) vaccine is a live attenuated vaccine. This means the live, disease-producing virus was modified, or weakened, in a laboratory to produce a virus that can multiply and produce immunity without causing illness.

#### **4) Who should get this vaccine?**

Chickenpox vaccine is recommended for the following:

- All infants (one dose given between 12-18 months of age)
- All older children who have never had chickenpox (one dose until age 13: for children and adults 13 or older, two doses of vaccine are needed, given 4-8 weeks apart)
- Adolescents and adults who have never had chickenpox, especially if they are at high risk of exposure to the virus. This includes teachers of young children, day care workers, parents of young children, college students, and others.
- Non-immune adolescents and adults who live or work with people at high risk for serious complications from chickenpox. This includes health care workers and family contacts of people with compromised immune systems.

#### **5) Will I ever need any additional doses of chickenpox (varicella) vaccine?**

Booster doses are not currently recommended. But scientists are conducting studies to see if a dose of chickenpox (varicella) vaccine later in life might prevent reactivation of varicella virus, the disease known as zoster or “shingles.”

#### **6) How safe is this vaccine?**

Millions of doses of chickenpox (varicella) vaccine have been given in the United States, and studies continue to show that the vaccine is safe.

#### **7) How effective is this vaccine?**

The chickenpox vaccine is very effective. More than 95% of children between 12 months and 12 years of age develop immunity to the disease after one dose of vaccine. For older children and adults, 78% to 82% develop immunity after one dose. And 99% develop immunity after the recommended two doses. Although some vaccinated children will still get chickenpox, they generally will have a much milder form of the disease, with minimal blisters, lower fever, and a more rapid recovery.

#### **8) Can the vaccine cause chickenpox?**

Because this vaccine is made from a live, but weakened, virus, about 1% of recipients develop a mild form of the disease, consisting of a limited rash, most often with only 5 to 6 blisters. Usually there is no fever. These people are then protected from the more serious, naturally occurring form of the virus.

### **9) Can the vaccine cause herpes zoster (shingles)?**

Yes, this is possible but uncommon. The risk from getting shingles from the naturally occurring virus is 4 to 5 times higher than from the vaccine virus. Fewer than 50 cases of shingles in vaccinated people have been reported. All of these cases have been mild and without complications.

## **Chickenpox Vaccine – Administration**

### **1) How is this vaccine administered?**

The chickenpox vaccine is given as a shot. A 0.5 ml dose is given subcutaneously.

### **2) Should adults be tested before vaccination to see if they are already immune to chickenpox?**

Currently, 90% to 95% of adults are immune to chickenpox because of having had the disease as children. If you know you had chickenpox disease earlier in life, you don't need testing or vaccination, unless you are working in an environment where your immune status must be documented (such as a hospital). If you are uncertain of your medical history, blood testing can be done to see if immunization would be useful.

### **3) What side effects have been reported with this vaccine?**

Possible side effects are generally mild and include redness, stiffness, and soreness at the injection site; such localized reactions occur in about 20% of children immunized. A small percentage of people develop a mild rash, usually around the spot where the shot was given.

## **Chickenpox Vaccine – Contraindications**

### **1) Who should NOT receive the chickenpox vaccine?**

- Children with weakened immune systems and those with life-threatening allergies to gelatin or the antibiotic neomycin
- Pregnant women should not receive this vaccine, as the possible effects on fetal development are unknown. Non-pregnant women of childbearing age who have never had the disease may be immunized against chickenpox to avoid contracting the disease while pregnant.

Sources:

[The Immunization Action Coalition and the Hepatitis B Coalition](#)

[Military Vaccine \(MILVAX\) Agency](#)

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