# **Shingles (Zoster): Questions and Answers** *Information about the disease and vaccine*

## What causes shingles?

Both chickenpox and shingles are caused by the same virus, the varicella zoster virus (VZV). After a person has had chickenpox, the virus rests in the body's nerves permanently. Approximately 30% of all people who have been infected with chickenpox will later develop herpes zoster, commonly known as zoster or shingles.

# Why do some people develop shingles and others don't?

Shingles occurs when VZV reactivates and causes recurrent disease. It is not well understood why this happens in some people and not others. The risk of getting shingles increases as a person gets older. People who have medical conditions that keep the immune system from working properly, or people who receive immunosuppressive drugs are also at greater risk to get shingles.

### What are the symptoms of shingles?

Shingles usually starts as a rash with blisters that scab after 3 to 5 days. The most frequently mentioned symptom is pain. The rash and pain usually occur in a band on one side of the body, or clustered on one side of the face. The rash usually clears within 2 to 4 weeks.

Before the rash develops, there is often pain, itching, or tingling in the area where the rash will develop. Other symptoms of shingles can include fever, headache, chills, and upset stomach.

### What are possible complications from shingles?

Very rarely, shingles can lead to pneumonia, hearing problems, blindness, scarring, brain inflammation (encephalitis), or death.

For about one person in five, severe pain can continue even after the rash clears up, a situation called post-herpetic neuralgia (PHN). As people get older, they are more likely to develop PHN, and it is more likely to be severe and long lasting. The pain may be sharp or throbbing, and it may extend beyond the area of the original rash. The skin may be unusually sensitive to touch and to changes in temperature. PHN can last for months, or even years.

### Is there a treatment for shingles?

Several antiviral medicines can be used to treat shingles. These medications should be started as

soon as possible after the rash appears. They can help shorten the length and severity of the episode. Antiviral treatment is most effective if administered within 24 to 72 hours of the appearance of the rash. Pain medicine may also help with pain caused by shingles.

## Is there a test for shingles?

Yes. Shingles is usually diagnosed based on symptoms and the appearance of the rash. Definite diagnosis is made by growing the varicella virus from a skin lesion.

## Can you catch shingles from an infected person?

No, shingles cannot be passed from one person to another such as through sneezing, coughing, or casual contact. While it is possible for the VZV virus to be spread from a person with active shingles to a person who has never had chickenpox or never been vaccinated against chickenpox (if they have direct contact with the rash), the person exposed would develop chickenpox, not shingles.

### How common is shingles in the United States?

It is estimated that one million cases of shingles occur annually.

### Can you get shingles more than once?

Yes, but rarely. Most people will have only one occurrence of shingles in their lifetime, but second and third occurrences have been reported.

### When did zoster vaccine first become available?

Zoster vaccine (Zostavax by Merck) was licensed on May 25, 2006.

### What kind of vaccine is it?

The zoster vaccine is a live, attenuated vaccine. This means the live, disease-producing virus was modified, or weakened, in the laboratory to produce an organism that can grow and produce immunity in the body without causing illness.

### How is this vaccine given?

This vaccine is given by an injection, usually in the fat into the back of the upper arm.

### Who should get this vaccine?

The Advisory Committee on Immunization Practices recommends that all adults age 60 years and older

Technical content reviewed by the Centers for Disease Control and Prevention

www.immunize.org/catg.d/p4221.pdf • Item #P4221 (12/13)

receive one dose of zoster vaccine, including persons who have already had an episode of shingles. Vaccination can be done during a routine healthcare visit.

In 2011, the Food and Drug Administration (FDA) approved the use of the zoster vaccine for the prevention of shingles in individuals 50 to 59 years of age. ACIP does not recommend routine zoster vaccination of people age 50 through 59 years, but a clinician may give it to people in this age group if desired.

#### How effective is this vaccine?

Zoster vaccine was studied in approximately 38,000 individuals throughout the United States who were age 60 years and older as part of its pre-licensure testing. Half received the vaccine and half received a placebo. Study participants were followed for an average of three years to see if they developed shingles and, if they did, how long the pain lasted.

Researchers found that the vaccine reduced the occurrence of shingles by about 50% among persons age 60 years and older. In this study the vaccine was most effective for those age 60–69 years (64%); effectiveness declined with increasing age to 41% for those age 70–79 years and 18% for those age 80 years and older. A later study showed the vaccine to be about 70% effective in preventing shingles among persons age 50–59 years.

In individuals vaccinated with zoster vaccine who still developed shingles, the duration of pain was shorter than for those who received a placebo. The severity of the pain did not appear to differ among the two groups.

# Does the vaccine help prevent post-herpetic neuralgia?

In people who were age 70 years and older who still developed shingles after being vaccinated, the vaccine reduced the frequency of post-herpetic neuralgia. However, the primary benefit of the vaccine in preventing post-herpetic neuralgia is by reducing the risk of developing shingles in the first place.

#### Who recommends this vaccine?

The vaccine has been recommended by CDC's Advisory Committee on Immunization Practices, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the American College of Physicians.

### How safe is this vaccine?

In a clinical trial involving more than 38,000 adults, zoster vaccine was administered to about half of the study participants. The other half received a placebo.

The occurrence of possible side effects was similar in the vaccine and placebo groups (1.9% and 1.3%, respectively).

As with all vaccines, the manufacturer, CDC, and the FDA will continue to monitor the vaccine to provide additional safety information.

# What side effects have been reported with this vaccine?

The most commonly reported side effects are redness (36%), pain or tenderness (35%), swelling (26%), and itchiness (7%) at the injection site.

#### Who should NOT receive zoster vaccine?

- People who are allergic to the antibiotic neomycin, or any component of the vaccine (including gelatin) should not receive this vaccine.
- Zoster vaccine is a live vaccine and should not be given to individuals who have a weakened immune system caused by treatments that they are taking such as radiation or corticosteroids, or due to conditions such as HIV/AIDS, cancer of the lymph, bone, or blood.
- Pregnant women should not receive this vaccine.

#### Is the cost of shingles vaccine covered by Medicare?

All Medicare Part D plans cover the shingles vaccine, meaning that a pharmacy can bill Medicare for the cost of the vaccine. Your share of payment varies by plan. Medicare Part B does not cover the shingles vaccine. If you have private insurance, your plan may or may not cover the vaccine; contact your insurer to find out.

If you get the vaccine at a pharmacy, it is very important that it be administered in the pharmacy. Shingles vaccine should NEVER be transported from a pharmacy to a doctor's office. It must be given as soon as it is removed from storage in a pharmacy freezer.

# **Does the zoster vaccine cause shingles?** No.

# Can a person who has received the vaccine infect others with this virus?

No. It is safe to be around infants and young children, pregnant women, or people with weakened immune systems after you get the shingles vaccine. Transmission of the chickenpox virus from a person who has received the shingles vaccine has never been documented. Some people who get the shingles vaccine will develop a chickenpox-like rash near the place where they were vaccinated. As a precaution, this rash should be covered until it disappears.