

# Zoster Vaccine: Q&A

## CDC Answers Your Questions

For complete information on CDC's recommendations for the use of zoster vaccine, go to [www.immunize.org/acip](http://www.immunize.org/acip)

*Experts from the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention answer your questions about zoster vaccine.*

### To whom should zoster vaccine be given?

The Advisory Committee on Immunization Practices (ACIP) recommends a single dose of zoster vaccine (Zostavax, Merck) for all adults age 60 years and older whether or not they report a prior episode of herpes zoster. Persons with chronic medical conditions may be vaccinated unless a contraindication or precaution exists for their condition. For a copy of the ACIP recommendations on zoster vaccine, go to [www.cdc.gov/mmwr/PDF/rr/rr5705.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5705.pdf).

### Is there an upper age limit for receipt of the zoster vaccine? Some providers are reluctant to give zoster vaccine to persons age 80-plus years.

There is no upper age limit for receiving zoster vaccine. The incidence of herpes zoster increases with increasing age; about 50% of persons living until age 85 years will develop zoster. ACIP recommends the vaccine for everyone age 60 and older, even though the vaccine's efficacy decreases with an increase in the recipient's age. The clinical trials found an approximately 18% efficacy in people age 80 and older as compared with 64% efficacy in people age 60 through 69 years. In general, with increasing age at vaccination, the vaccine is more effective in reducing the severity of zoster and post-herpetic neuralgia than in reducing the occurrence of zoster.

### Before administering zoster vaccine is it necessary to ask (or test) if the person has ever had chickenpox or shingles?

No. All persons age 60 years or older – whether they have a history of chickenpox or shingles or not – should be given zoster vaccine unless they have a medical contraindication to vaccination (described below). It is

also not necessary to test for varicella antibody prior to giving the vaccine.

### What are the contraindications and precautions to zoster vaccine?

Contraindications for administering zoster vaccine to patients:

- Severe allergic reaction to a vaccine component or following a prior dose
- Immunosuppression from any cause (disease or treatment of a disease)
- Pregnancy

The only precaution for administering zoster vaccine to patients is the presence of a moderate or severe acute illness. Vaccination should be deferred until the illness improves.

### Zoster vaccine is approved by the FDA for people age 50 years and older. Does ACIP recommend that clinicians vaccinate people in their 50s?

At its October 2013 meeting, ACIP declined to vote to expand the recommendations for the use of zoster vaccine to include people age 50 through 59 years for the following reasons: (1) though the burden of herpes zoster disease increases after age 50, disease rates are lower in this age group than they are in persons age 60 years and older; (2) there is insufficient evidence for long term protection provided by the vaccine; and (3) persons vaccinated at younger than age 60 years may not be protected when the incidence of zoster and its complications are highest. However, zoster vaccine is approved by the FDA for persons age 50 through 59 years and clinicians may vaccinate persons in this age group without an ACIP recommendation.

### I know that ACIP only recommends zoster vaccine for adults age 60 years and older, although it is licensed for use in those 50 years and older. If I choose to vaccinate patients age 50–59 years, are there any criteria as to which patients in this age group might benefit most from zoster vaccination?

CDC had the following to say about your question in a November 22, 2011, issue of

*MMWR* titled “Update on Herpes Zoster Vaccine: Licensure for Persons Aged 50 Through 59 Years” (available at [www.cdc.gov/mmwr/preview/mmwrhtml/mm6044a5.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6044a5.htm)):

“For vaccination providers who choose to use Zostavax among certain patients aged 50 through 59 years despite the absence of an ACIP recommendation, factors that might be considered include particularly poor anticipated tolerance of herpes zoster or post-herpetic neuralgia symptoms (e.g., attributable to preexisting chronic pain, severe depression, or other comorbid conditions; inability to tolerate treatment medications because of hypersensitivity or interactions with other chronic medications; and occupational considerations).”

### The Zostavax package insert says to inject the vaccine into the deltoid region of the upper arm. We always give subcutaneous vaccines in the triceps area of the arm. Are we administering the vaccine incorrectly?

No. The subcutaneous tissue overlying the triceps muscle of the upper arm is the usual location for subcutaneous vaccine injection for an adult. Merck included this wording in their package insert because this was the method the vaccine was given in the clinical trials.

### When reconstituted, the volume of zoster vaccine is 0.65 mL. Should 0.65 mL or 0.5 mL be administered to the patient?

The recommended dose for zoster vaccine is the full reconstituted amount.

### How effective is zoster vaccine in preventing shingles?

In the key pre-licensure clinical trial, vaccine recipients had a 51% reduction in shingles, less severe illness when shingles did occur, and 66.5% less postherpetic neuralgia, compared with placebo recipients. During these trials, no significant safety issues were identified.

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**What adverse reactions have been reported with this vaccine?**

The most commonly reported adverse reactions are redness (36%), pain or tenderness (35%), swelling (26%), and itchiness (7%) at the injection site. No serious adverse reactions have been associated with zoster vaccine.

**The Zostavax package insert says that the vaccine is contraindicated in a person with a history of primary or acquired immunodeficiency states, leukemia, lymphoma, or other malignant neoplasms affecting the bone marrow or lymphatic system. Does this mean that a person who was treated for lymphoma many years ago and is now healthy should not receive zoster vaccine?**

No. A person who was treated for leukemia, lymphoma, or other malignant cancers in the past and is now healthy and not receiving immunosuppressive treatment may receive zoster vaccine. However, a person who is immunosuppressed for any reason (disease or treatment) should not receive the vaccine.

**How long should we wait before giving zoster vaccine to a patient who has had a blood transfusion?**

There is no waiting period for administering zoster vaccine following transfusion. The amount of antigen in zoster vaccine is so substantial that it overpowers any antibody to herpes zoster that may be in the blood product. This is not the case for varicella and MMR vaccines, however. Wait 3 or more months before administering these vaccines to a patient who has received an antibody-containing blood product.

**If a person was exposed to shingles by a spouse within the last few days is there a recommended waiting period before the exposed spouse can receive zoster vaccine?**

There is no waiting period in such a situation. Zoster vaccine can be given right away or at any time to any person for whom the vaccine is recommended. Shingles is not caused by exposure to another person with shingles. People with shingles can only possibly cause a susceptible person to develop varicella (chickenpox), not zoster.

**How should zoster vaccine be stored?**

All varicella-containing vaccines, including zoster vaccine, must be stored frozen at a temperature of between -58°F and +5°F (-50°C and -15°C) until it is reconstituted. CDC recommends the use of a separate stand-alone freezer to store frozen vaccines. A storage unit that is frost-free or has an automatic defrost cycle is preferred. The diluent should be stored separately at room temperature or in the refrigerator.

Zoster vaccine may be stored at refrigerator temperature between 36°F and 46°F (2°C and 8°C) for up to 72 continuous hours prior to reconstitution. Vaccine stored between 36°F and 46°F (2°C and 8°C) that is not used within 72 hours of removal from a freezer should be discarded.

**How should zoster vaccine be transported to an off-site clinic location?**

Neither CDC nor the vaccine manufacturer recommends transporting varicella-containing vaccines, including zoster vaccine.

**People are picking up zoster vaccine at local pharmacies and transporting it to the physician's office to be given. Should this vaccine be given?**

This practice is not acceptable. If the vaccine has been exposed to temperature conditions outside of those specified in the package insert, the provider must contact Merck for guidance prior to administering the vaccine. Merck's contact information is included in the package insert.

**If zoster vaccine that has been damaged by a temperature excursion has been inadvertently administered to a patient, when should the dose be repeated?**

According to the ACIP's General Recommendations on Immunization, an invalid dose of a live attenuated vaccine (such as zoster vaccine) should be repeated no less than 4 weeks after the invalid dose. This information is located at [www.cdc.gov/mmwr/pdf/rr/rr6002.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf), pages 18–19.

**REFERENCES**

Prevention of Herpes Zoster: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*, June 6, 2008; 57(05): 1–30. Available at [www.cdc.gov/mmwr/PDF/rr/rr5705.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5705.pdf).

Update on Herpes Zoster Vaccine: Licensure for Persons Aged 50 Through 59 Years. *MMWR*, November 11, 2011; 60(44):1528. Available at [www.cdc.gov/mmwr/pdf/wk/mm6044.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6044.pdf).