Español | Other Languages





Vaccine Safety

Vaccine Safety Home

Shingles (Herpes Zoster) Vaccines

Safety Information

Shingles Disease and How to Protect Against It

Shingles, or herpes zoster, is a painful skin rash that develops on one side of the face or body. It is caused by the varicella-zoster virus (VZV), the same virus that causes chickenpox. Anyone who has had chickenpox in the past can get shingles because VZV remains in the body after a person recovers from chickenpox. VZV can reactivate many years later, causing shingles.

Shingles is more common in older adults, people who have medical conditions that weaken the immune system, and people who take medications that suppress their immune systems. Getting vaccinated is the best way to prevent shingles.

Learn more about shingles.

Available Vaccines

There are currently two shingles vaccines licensed and available for use in the United States: Shingrix® (recombinant zoster vaccine) and Zostavax® (zoster vaccine live). While both shingles vaccines are safe and effective, they are different in their composition, effectiveness, and potential side effects.

CDC recommends Shingrix as the preferred vaccine, over Zostavax, to prevent shingles and the complications from the disease. Shingrix provides stronger protection against shingles compared to Zostavax.

- **Shingrix** [PDF 18 Pages] The Food and Drug Administration (FDA) licensed Shingrix in 2017 to prevent shingles. CDC recommends that adults age 50 years and older receive two doses of Shingrix. Shingrix is the preferred vaccine to prevent shingles.
 - See the Recommendations of the Advisory Committee on Immunization Practices (ACIP) for Shingrix (2018).
- **Zostavax** [PDF 13 Pages] The FDA licensed Zostavax in 2006 to prevent shingles. CDC recommends one dose of Zostavax for adults age 60 years and older. This vaccine may be used in certain cases, such as when a person prefers Zostavax or is allergic to Shingrix.
 - See the Recommendations of the ACIP for Zostavax (2008).

Zostavax will no longer be sold in the United States starting July 1, 2020.

Some pharmacies and clinics may still have Zostavax in stock. This vaccine is safe and may be used until the supply expires (before or by November 2020).



Child and Adult Immunization Schedules

Get CDC's official recommended immunization schedules for children, adolescents, and adults.

Common Side Effects

Vaccines, like any medicine, can have side effects. Because the two herpes zoster vaccines are different in composition, their potential side effects can differ.



Severe allergic reactions following vaccination are rare, but can be life threatening.

Symptoms of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness.

If such reactions occur, call 9-1-1 and get the person to the nearest hospital.

Shingrix

Common Side Effects

- Pain, redness, and swelling at the injection site
- Muscle pain
- Tiredness
- Headache
- Shivering
- Fever
- Upset stomach

Most side effects are mild to moderate— lasting 2-3 days—and could affect normal daily activities. Side effects are more common in younger people.

Who Should Not Get Shingrix

People with a history of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or after a previous dose of Shingrix.

People who currently have shingles, and women who are pregnant or breastfeeding, should wait to get Shingrix.

Zostavax

Common Side Effects

- Redness, pain, swelling, warmth, or itching at the injection site
- Headache

Most side effects are mild to moderate, and last 1-3 days.

Who Should Not Get Zostavax

Pregnant women, some people who have medical conditions or are taking medications that could weaken the immune system (ask your doctor if you have concerns), and people with a history of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine.

More information about contraindications and precautions.

Report Possible Adverse Events To VAERS

The Vaccine Adverse Event Reporting System (VAERS) is an early warning system, co-managed by CDC and FDA, that monitors for potential vaccine safety problems.

Healthcare providers and vaccine manufacturers are required by law to report certain adverse events following vaccination to VAERS; patients and caregivers can also submit reports.

For more information, see Report an Adverse Event to VAERS .

A Closer Look at the Safety Data

Both Shingrix and Zostavax shingles vaccines have been shown to be safe and well tolerated. Common side effects, such as soreness and redness at the injection site, are usually mild to moderate in intensity and resolve quickly on their own.

Shingrix

In 8 clinical trials of more than 10,000 participants:

- Grade 3 reactions (vaccination-related reactions severe enough to prevent normal activities) were common (17%) after patients received Shingrix.
- About 1 out of 10 adults who received Shingrix reported grade 3 injection-site symptoms such as pain, redness, and swelling.
- About 1 out of 10 reported grade 3 systemic reactions such as myalgia (muscle pain), fatigue (feeling tired), headache, shivering, fever, and gastrointestinal illness.
- Most people (78%) who got Shingrix reported at least some pain at the injection site.

Zostavax

- A 2013 study showed that patients with a history of a previous shingles rash had the same side effects after Zostavax as those with no history of shingles. See Safety of zoster vaccine in elderly adults following documented herpes zoster .
- A 2012 study found a small risk for allergic reactions 1 to 7 days after Zostavax. See Safety of zoster vaccine in adults from a large managed-care cohort: a Vaccine Safety Datalink study
 ☐ .
- In rare cases, people who got vaccinated with Zostavax experienced a blister-like rash; some were found to have been caused by the vaccine.

How CDC Monitors Vaccine Safety

CDC and FDA monitor the safety of vaccines after they are approved or authorized. If a problem is found with a vaccine, CDC and FDA will inform health officials, health care providers, and the public.

CDC uses 3 systems to monitor vaccine safety:

- The Vaccine Adverse Event Reporting System (VAERS): an early warning system, co-managed by CDC and FDA, to monitor for potential vaccine safety problems. Anyone can report possible vaccine side effects to VAERS.
- The Vaccine Safety Datalink (VSD): a collaboration between CDC and 13 healthcare organizations that conducts vaccine safety monitoring and research.
- The Clinical Immunization Safety Assessment (CISA) Project: a partnership between CDC and several medical research centers that provides expert consultation and conducts clinical research on vaccine-associated health risks.

More Resources

- Shingrix Vaccine Information Statement
- Zostavax Vaccine Information Statement
- What Everyone Should Know about Shingles Vaccine (Shingrix)
- What Everyone Should Know About Shingles Vaccine (Zostavax)
- CDC's Shingles Disease Website
- Shingles: Clinical Overview

Related Scientific Articles

English D. Willis, Meredith Woodward, Elizabeth Brown, Zoran Popmihajlov, Patricia Saddier, Paula W. Annunziato, Neal A. Halsey, Anne A. Gershon, Herpes zoster vaccine live: A 10 year review of post-marketing safety experience ☑. *Vaccine*. 2017 Dec 19:35(52):7231-7239.

Cunningham AL, Lal H, Kovac M, Chlibek R, Hwang SJ, Diez-Domingo J, et al. Efficacy of the herpes zoster subunit vaccine in adults 70 years of age or older. MEJM. 2016:375(11), 1019-32.

Lal H, Cunningham AL, Godeaux O, Chlibek R, Diez-Domingo J, Hwang SJ, Levin MJ, McElhaney JE, Poder A, Puig-Barberà J, Vesikari T. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults . NEJM. 2015:372(22):2087-96.

Cohen J. A New Vaccine to Prevent Herpes Zoster . NEJM. 2015:372:2149-2150 [Link:]

Baxter R, Tran TN, Hansen J, Emery M, Fireman B, et al. Safety of Zostavax™-A cohort study in a managed care organization.

Vaccine. 2012 Oct 19;30(47):6636-41.

Gagliardi AM, Gomes Silva BN, Torloni MR, Soares BG. Vaccines for preventing herpes zoster in older adults . *Cochrane Database Syst Rev.* 2012 Oct 17;10:CD008858.

Hales CM, Harpaz R, Ortega-Sanchez I, Bialek SR. Update on Recommendation for Use of Herpes Zoster Vaccine . *MMWR.* 2014 Aug 22; 63(33):729-731.

Harpaz R, Ortega-Sanchez IR, Seward JF. Advisory Committee on Immunization Practices (ACIP) Centers for Disease Control and Prevention (CDC). Prevention of herpes zoster: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2008 Jun 6;57(RR-5):1-30.

Mills R, Tyring SK, Levin MJ, Parrino J, Li X, et al. Safety, tolerability, and immunogenicity of zoster vaccine in subjects with a history of herpes zoster.

Vaccine. 2010 Jun 7;28(25):4204-9.

Morrison VA, Oxman MN, Levin MJ, Schmader KE, Betts RF, et al. Safety of Zoster Vaccine in Elderly Adults Following Documented Herpes Zoster . *J Infect Dis.* 2013;208(4):559-563.

Murray AV, Reisinger KS, Kerzner B, Stek JE, Sausser TA, et al. Safety and tolerability of zoster vaccine in adults ≥60 years old.

☐ Hum Vaccin. 2011 Nov;7(11):1130-6.

Schmader KE, Levin MJ, Gnann JW Jr, McNeil SA, Vesikari T, et al. Efficacy, safety, and tolerability of herpes zoster vaccine in persons aged 50-59 years. Clin Infect Dis. 2012 Apr;54(7):922-8.

Simberkoff MS, Arbeit RD, Johnson GR, Oxman MN, Boardman KD, et al. Safety of herpes zoster vaccine in the shingles prevention study: A randomized trial. Ann Intern Med. 2010 May 4;152(9):545-54.

Tseng HF, Liu A, Sy L, Marcy SM, Fireman B, et al. Safety of zoster vaccine in adults from a large managed-care cohort: A Vaccine Safety Datalink study.

J Intern Med. 2012 May;271(5):510-20.

Vermeulen JN, Lange JM, Tyring SK, Peters PH, Nunez M, et al. Safety, tolerability, and immunogenicity after 1 and 2 doses of zoster vaccine in healthy adults \geq 60 years of age. \square *Vaccine*. 2012 Jan 20;30(5):904-10.

Last Reviewed: September 9, 2020