

Shingles

reprinted from www.aidsmeds.com, united states

What is it?

Shingles is an infection caused by the same virus that causes chickenpox (the varicella-zoster virus, which is a type of herpes virus). You cannot develop shingles unless you have had a previous infection of chickenpox (usually as a child). Shingles can occur in people with suppressed immune systems, which includes people with HIV and people over 60 years of age (especially those with diabetes, cancer, or other diseases that can suppress immunity).

Up to 95 percent of people in the United States have antibodies against the varicella-zoster virus and many develop chickenpox at some point in their lives, usually when they are school-aged children. Even though the pox lesions heal, the virus does not die—it continues to live quietly in nerve roots near the spinal cord. While the immune system cannot kill the virus completely, it can prevent the virus from becoming active again, usually for the rest of an infected person's life. However, if the immune system becomes suppressed, the virus can escape the nerve roots and become active. Instead of coming back as chickenpox (varicella), it comes back as shingles (zoster).

When shingles occurs, it only affects one side of the body, usually in the form of a belt-like streak along a single line of nerves. The most common site is the back, upper abdomen, or face. It can also affect the eyes and more rarely the inner ear. Shingles can be very painful, but it can be treated.

You cannot transmit shingles to someone who has had chickenpox in the past or has been vaccinated against the varicella-zoster virus. However, the rash that occurs with shingles can “shed” the varicella-zoster virus. Someone who has not had chickenpox or has not been vaccinated against this virus can develop chickenpox if they come into contact with a shingles rash.

Approximately 3% to 5% of people infected with the varicella-zoster virus will experience shingles at some point in their lives, most of them after the age of 50. Shingles is 15 to 25 times more likely to occur in HIV-positive people, regardless of the CD4 cell count. In other words, the CD4 cell count doesn't need to be low for shingles to be a risk; it can develop even when the immune system appears relatively healthy. In HIV-positive people with significant immune suppression (CD4 cell count below 50), there is an increased risk of zoster infection of other parts of the body, including the retina at the back of the eye. This can result in rapid blindness.

What are the symptoms?

The first signs of shingles is often fever, chills, fatigue, headache, and an upset stomach, which can lead people to mistakenly believe they have the flu. These symptoms are often followed by sensations of numbness, tingling or pain on one side of the body or face. Many people describe the pain as burning, throbbing and stinging, with intermittent sharp stabs of severe pain. Some people experience severe itching or aching rather than pain.

After several days of these symptoms, a belt-like rash that extends from the midline of the body outward will develop. The rash will be made up of grape-like clusters of small, clear, fluid-filled blisters on reddened skin. Within three days after the rash appears, the fluid-filled blisters will turn yellow, dry up, and crust over. Shingles rash can sometimes take longer to crust over in HIV-positive people with severely suppressed immune systems. Here's what a shingles rash can look like...



After the rash crusts over, it can take two weeks or longer for the shingles to heal completely, sometimes leaving pitted scars.

In about 10 to 25 percent of cases, shingles can occur in the eye, which is known as “ophthalmicus” shingles. The symptoms range from pain and redness of the eye to impaired vision and chronic twitching of the eyelid. In the worst cases, this can lead to permanent damage and blindness. Also, rarely, shingles can spread to the nerves in the inner ear, which can lead to hearing loss, vertigo and loss of balance.

It can take up to six weeks for shingles pain to go away completely. Sometimes, shingles can do long-lasting damage to a nerve, which may result in pain, numbness, or tingling for months or years after the rash has healed completely (this is called “post-herpetic neuralgia”).

How is shingles diagnosed?

Initial flu-like symptoms can be mistaken for other diseases. As soon as the rash develops, however, shingles is relatively easy to diagnose, as the rash is fairly unique. In turn, your doctor may be able to tell you what it is—and have you start treatment immediately—simply by looking at the rash. To be sure, or if your doctor has doubts, he or she can take a small sample of the rash and send it to a lab to look for the varicella-zoster virus.

How is shingles treated?

Like most herpes viruses, varicella-zoster cannot be cured. However, shingles can be treated. Treatment can speed up healing time, reduce pain, and delay or prevent shingles from recurring. Most of the time, pills taken by mouth can be used to treat shingles. Sometimes, if the infection is severe or doesn't respond effectively to the pills, it might be necessary to be admitted to the hospital to receive intravenous (IV) treatment.

There are three treatments available for the treatment of shingles:

- **Acyclovir** (Zovirax): Acyclovir has been studied and used for many years as a treatment for shingles. It has been studied specifically in people with HIV and has been shown to be safe and effective. Treatment is most effective if it is initiated within 48 to 72 hours after the first symptoms appear. Intravenous acyclovir is used to treat more serious outbreaks

of shingles. The oral dose used to treat shingles is 800 mg taken five times a day for seven to ten days (until the rash has crusted over). Taking lower doses of the drug for a prolonged period of time can help prevent shingles from recurring. However, this is usually recommended only for patients who have a history of frequent recurrences.

- **Valacyclovir** (Valtrex): Valacyclovir is a “pro-drug” of acyclovir. Unlike acyclovir, valacyclovir needs to be broken down by the body before its active ingredient—acyclovir—can begin controlling the disease. This allows for higher amounts of acyclovir to remain in the body, thus requiring a lower dose of the drug to be taken by mouth. For the treatment of shingles, 1,000 mg of valacyclovir is taken three times a day for seven days or until the rash has completely crusted over. Treatment is most effective if it is initiated within 48 to 72 hours after the first symptoms appear. Like acyclovir, valacyclovir rarely causes side effects. Valacyclovir is actually the preferred form of acyclovir to use for the treatment of shingles (IV acyclovir is still the preferred choice for the treatment of severe shingles).
- **Famciclovir** (Famvir): Famciclovir is the pill form of a topical cream called penciclovir (Denavir). The dose of famciclovir is 500 mg three times a day for seven days or until the rash has completely crusted over. Treatment is most effective if it is initiated within 48 to 72 hours after the first symptoms appear.

Oral drugs to treat shingles work best if they are started within three days of the start of symptoms. Thus, it's always best to contact your healthcare provider immediately if you notice burning, sharp pain, tingling, or numbness in or under your skin on one side of your body or face.

In some cases, shingles does not respond to acyclovir, valacyclovir, or famciclovir, probably due to the emergence of drug-resistant forms of the virus. Fortunately, this has occurred in only a few HIV-positive people. Because acyclovir is similar to both valacyclovir and famciclovir, simply switching to these two drugs is not usually effective. At the present time, foscarnet (Foscavir) is the most common treatment for acyclovir-resistant shingles. The drug must be administered via an intravenous (IV) line, usually three times a day, often in a hospital or under the close supervision of an in-home nurse.

Painkillers can also be used to manage the discomfort of shingles. Most of the time, mild painkillers (e.g., Tylenol and Advil) are helpful. Stronger painkillers, including some that can be taken by mouth or applied directly to the skin (e.g., Lidoderm brand lidocaine patches), are also available and can be obtained with a doctor's prescription. In some cases a doctor may use a corticosteroid, like prednisone, to relieve pain and possibly speed healing time. There are no data on the use of immune suppressing drugs like prednisone to treat shingles in people with HIV, however.

During an episode of shingles, it is important to keep the sores and the area around the sores as clean and dry as possible. This will help your natural healing processes. Keeping the sores clean can also prevent them from becoming infected with bacteria, which can sometimes occur. Some doctors recommend warm showers in order to cleanse the affected area. Afterwards, towel dry gently, or dry the area with a hair dryer on a low or cool setting. To prevent chaffing, some people also find it helpful to avoid tight-fitting undergarments. Most creams and lotions do no good and may even irritate the area.

Can shingles be prevented?

There are two kinds of live vaccines against the varicella-zoster virus. One vaccine, called Varivax is typically recommended for children and guards against initial infection and chickenpox. The other vaccine, called Zostavax, is used to protect a person from developing shingles.

The Varivax vaccine is recommended for HIV-positive children who've never had chicken pox, are at least eight years old, and have a CD4 count of at least 200. While there haven't been any studies testing the

safety and effectiveness of Varivax in HIV-positive adolescents and adults who've never had chicken pox, many expert groups recommend it for older HIV-positive people, provided that their CD4 count is at least 200. If the vaccine ends up causing disease—a possibility when live vaccines are used—treatment with acyclovir is recommended.

Zostavax, the vaccine to prevent shingles in people who have already had chickenpox, is not currently recommended for HIV positive adults. This is because it is more potent than Varivax and may cause more extensive side effects, including severe rash and disseminated disease, in people with compromised immune systems. Zostavax has not yet been fully evaluated in people with compromised immune systems, including people with HIV. It is probably best that the vaccine be avoided by all HIV-positive people, regardless of their immune system status, until necessary clinical trials are completed.

At the present time, keeping the immune system healthy is the best way to prevent shingles. This means keeping your viral load low and your CD4 cells high using anti-HIV drug treatment and by adopting a healthy lifestyle.

Are there any experimental treatments?

If you would like to find out if you are eligible for any clinical trials involving new treatments for shingles, there is an interactive web site run by ACRIA, the AIDS Community Research Initiative of America. Another useful service for finding clinical trials is *AIDSinfo.nih.gov*, a site run by the U.S. National Institutes of Health. They have "health information specialists" you can talk to at their toll-free number at 1-800-HIV-0440 (1-800-448-0440).



For more treatment information, call Project Inform's toll-free National HIV/AIDS Treatment Hotline at 1-800-822-7422.

a note about this publication

This publication is reprinted here from another source (www.aidsmeds.com). We do not always have the resources at Project Inform to produce our own treatment information on every treatment topic. In these cases, we try to provide reliable information from other sources but cannot confirm that every fact in these publications is accurate. This information is designed to support, not replace, the relationship that exists between you and your doctor or medical provider.

TEXT LAST UPDATED: NOVEMBER 2008