

# Herpes Zoster

## Traveler Summary

### Key Points

- Herpes zoster (shingles) is a viral infection caused by the reactivation of the varicella (chickenpox) virus (which was dormant following a chickenpox infection). Shingles is not transmitted person to person, although contact with shingles blisters can cause chickenpox in someone who has never had chickenpox or chickenpox vaccination.
- Risk of shingles exists for anyone who has had chickenpox in the past but is highest among older adults and persons with a weakened immune system. Travel poses no additional risk.
- Symptoms include a localized, extremely painful rash on one side of the body that progresses to blisters then to dry, crusted lesions. Other symptoms include headache, sensitivity to light, and malaise.
- Consequences of infection most commonly include chronic nerve pain at the site of the healed rash and, less commonly, bacterial infection of the lesions and involvement of the eyes or other organ systems.
- Prevention includes minimizing the use of medications that suppress the immune system (when possible).
- Shingrix (preferred vaccine) is routinely given as 2 doses (spaced 2-6 months apart) to all persons 50 years and older and certain persons 18 years and older with a weakened immune system, regardless of travel plans or previous vaccination with the older vaccine (Zostavax [discontinued in the US]).
- Vaccine side effects with Shingrix are most commonly muscle aches, fatigue, fever, shivering, and severe injection-site pain, swelling, and redness. Approximately 1 in 6 persons have symptoms severe enough to prevent them from engaging in regular activities. Symptoms usually resolve in 2 to 3 days after vaccination.
- Duration of vaccine protection following a completed series is expected to be long-term. A booster dose is not recommended.

### Introduction

In adults with a normal immune system, herpes zoster (shingles) is a localized, extremely painful skin eruption caused by the reactivation of dormant varicella (chickenpox) virus, which after a previous chickenpox infection, had become dormant in nerve tissue and remained suppressed by a competent immune system. The virus may become reactivated due to factors such as aging of the immune system, stress, or taking certain medications that suppress the immune system. Shingles generally affects only a single nerve distribution on one side of the body or face, but it may spread to other areas in persons with a highly weakened immunity.

### Risk Areas

Risk is not related to geography or travel destination but almost 1 of every 3 persons in the US will develop shingles at some time. Approximately 1 million cases occur each year in the US, with about half of all cases occurring among persons 60 years and older due to waning immunity. Incidence, risk of complications, and severe disease are also increased in persons with weakened immune systems.

### Transmission

Shingles itself is not transmitted person to person; however, transmission of the varicella virus via contact with (or inhalation of aerosols from) shingles blister fluids can cause chickenpox in persons who are not immune to chickenpox (e.g., individuals without history of disease or previous chickenpox vaccination).

### Risk Factors

Risk of shingles exists for anyone who has had chickenpox but is highest among older adults and persons with a weakened immune system. Intrauterine exposure to the varicella virus or having had chickenpox when younger than 18 months may increase the risk of shingles later in life. Travel poses no additional risk.

### Symptoms

Symptoms include abnormal skin sensations and pain of varying severity, which develops into a painful, itchy rash localized to one side of the body that (over 3-5 days) progresses into clusters of clear blisters, which then become dry and crusted. The blisters usually heal in 2 to 4 weeks and may result in permanent skin scarring. In persons with compromised immunity, the rash may spread (affecting more areas of the body) and may resemble chickenpox. Other symptoms include headache, sensitivity to light, and malaise.

## Consequences of Infection

Persons with weakened immune systems are at risk of developing complications resulting from shingles. Chronic, persistent pain (postherpetic neuralgia [PHN]), located in the area where the rash appeared, is a common complication occurring after the rash has resolved. PHN can last for weeks, months, or years and usually occurs in about 13% of persons 60 years and older (but is rare in persons younger than 40 years). Other complications include eye involvement, bacterial infection of the lesions, central nervous system involvement, and other organ involvement, such as the lungs and liver. Most people have only 1 episode of shingles in their lifetime, but second and third episodes are possible.

## Need for Medical Assistance

Persons who develop symptoms of shingles should seek medical attention. Antiviral drugs, if given within 3 days of symptom onset, have been shown to reduce the duration and severity of illness and may reduce the risk of developing PHN.

## Prevention

### Nonvaccine

Minimize the use of medications that suppress the immune system when possible. No study has demonstrated a beneficial effect of general stress reduction or an increased susceptibility due to travel. Persons with active shingles blisters should cover them and avoid contact with susceptible persons in their household and in occupational settings until their blisters have dried and crusted.

### Vaccine

Shingrix is routinely recommended for all persons 50 years and older (especially for adults with chronic medical conditions) and certain persons 18 years and older with a weakened immune system, regardless of history of previous episodes of shingles or previous vaccination with Zostavax. Vaccination reduces the risk of shingles by more than 91% and PHN by about 90%.

The older vaccine, Zostavax (discontinued in the US), should no longer be used, except in cases where Shingrix is unavailable, contraindicated, or based on individual preference.

### Side Effects

The most common side effects of Shingrix include muscle aches, tiredness, fever, shivering, and severe injection-site pain, redness, and swelling. Approximately 1 in 6 persons have symptoms severe enough to prevent them from engaging in regular activities. Symptoms usually resolve in 2 to 3 days after vaccination.

Vaccine-related rash, hypersensitivity, and facial paralysis have been reported with Zostavax.

Persons with underlying medical conditions or those who have concerns about the vaccine should speak to their health care provider before vaccine administration.

### Timing

For all persons 50 years and older and certain persons 18 years and older with a weakened immune system, the primary routine series for Shingrix vaccine consists of 2 doses given 2 to 6 months apart. A shorter interval of 1 to 2 months apart may be used in persons with a weakened immune system if a shorter interval is determined to be beneficial.

A booster dose is not recommended, although persons previously vaccinated with Zostavax should be revaccinated with Shingrix.