



Comparison of chickenpox and shingles (varicella and herpes zoster)

The first infection with the varicella-zoster virus causes chickenpox. After recovery, the virus remains latent (sleeping) in spinal nerves and may reactivate years later, causing shingles. Either Varilrix® or Varivax® can be used to prevent chickenpox. Zostavax® is used to reduce the risk of virus reactivation and shingles. The following table compares chickenpox with shingles and identifies the correct vaccine to use.

| Chickenpox (varicella) | Shingles (herpes zoster) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disease | Disease |
| <ul style="list-style-type: none"> Primary infection with varicella-zoster virus Systemic Usually widespread rash over trunk and face with some on the arms and legs Usually children Contact with infected droplets of saliva in the air initially, then contact with liquid from rash blisters may cause chickenpox Infectious from 1–2 days before the rash appears until after the rash blisters have dried up Signs and symptoms <ul style="list-style-type: none"> Mild fever, loss of appetite, headache, tiredness Itchy rash that becomes blisters Varicella zoster-virus establishes latent infection in dorsal root ganglia and cranial nerves | <ul style="list-style-type: none"> Secondary infection from reactivation of latent varicella-zoster virus Only occurs when there has been a prior varicella zoster-virus infection Localised Rash occurs in the area the infected nerve supplies, typically on the back/chest or face Usually adults aged 50 years or older Contact with liquid from rash blisters may cause chickenpox Infectious once the rash becomes blisters until after the rash blisters have dried up Signs and symptoms <ul style="list-style-type: none"> Altered sensation, e.g. tingling, burning, numbness, where the rash will appear Mild fever, tiredness Unilateral, localised rash that becomes blisters Nerve pain |
| Prevention | Risk reduction |
| Varilrix® or Varivax® (these two vaccines are interchangeable) | Zostavax® |
| <ul style="list-style-type: none"> Only used to prevent primary varicella (chickenpox) infection Live, attenuated vaccine Approved for use from 9 months and 12 months of age respectively Dose <ul style="list-style-type: none"> Infants aged 9 months to under 12 months of age: two doses with the second dose at/after 12 months of age Children aged 12 months to under 13 years: the parent can choose whether to give either one or two doses. One dose gives good protection, two doses give optimal protection Individuals aged 13 years to under 50 years: two doses Vaccine efficacy <ul style="list-style-type: none"> Children under 13 years: against all chickenpox, 70–90% protected after one dose; 97–99% protected after two doses Individuals aged 13 years or older: against moderate to severe chickenpox, 79–91% protected after two doses | <ul style="list-style-type: none"> Only used to reduce the risk of secondary (herpes zoster/shingles) infection Live, attenuated vaccine 10 and 14 times stronger than Varilrix® and Varivax® vaccines respectively Approved for use from 50 years of age Can be given irrespective of a history of varicella or herpes zoster Do not test for varicella antibodies before or after giving Zostavax® Dose <ul style="list-style-type: none"> Adults aged 50 years or older: one dose Vaccine efficacy <ul style="list-style-type: none"> Individuals aged 50–59 years: against shingles 70% Individuals aged 60–69 years: against shingles 64% Individuals aged 70–79 years: against shingles 41% Individuals aged 80 years or older: against shingles 18% |
|  |  |

References

- Ampofo K, Saiman L, LaRussa P, Steinberg S, Annunziato P, Gershon A. Persistence of immunity to live attenuated varicella vaccine in healthy adults. *Clin Infect Dis.* 2002;34(6):774-9.
- Centers for Disease Control and Prevention. Prevention of varicella recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep.* 2007;56(RR-04):1-40.
- U.S. Food and Drug Administration. Package insert - Zostavax (refrigerator stable). [Internet] Silver Spring (MD): U.S. Food and Drug Administration; 2014 [updated 2014 February]; Available from: <http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM285015.pdf>.
- World Health Organization. Varicella and herpes zoster vaccines: WHO position paper, June 2014. *Weekly Epidemiological Record (WER)* 2014;25(89):265-88.