

VARICELLA AND SHINGLES

In primary infection, the varicella virus invades the cutaneous membrane (the skin) and irritates sensory nerve endings. Symptoms include itchy pustules. The virus can be spread when the pustules are open.

*initial site for VZV (varicella zoster virus) is believed to be mucosal epithelium of upper respiratory tract.

*transmission— aerosol droplets or contact with pustules

*infect WBCs (especially T cells) and travel to the skin

*may infect sensory receptors in the skin, then travel up the axon and incorporate into the DNA in the cell body in the DRG.

The virus may then enter the sensory neurons and travel up to the dorsal root ganglion of one or more dermatomes. There it can remain dormant indefinitely. Secondary infection may occur during periods of immunosuppression. The virus may reactivate and cause pustules in the skin of the affected dermatome.

Although there may be exceptions, answers are given to typical questions students ask about this disease:

Are chickenpox and shingles the same thing?

They are caused by the same virus. Chickenpox is the initial disease when the virus is encountered from pustules on someone with either chickenpox or shingles. Shingles occurs when the virus reenters the lytic cycle after being in the dormant lysogenic cycle for an indefinite period of time.

Can you get chickenpox from someone with the shingles?

Yes, if you have not acquired previous immunity to the virus.

Can you get shingles from someone with chickenpox?

No, because shingles is caused by the reactivation of the virus that was hiding in your dorsal root ganglia. Shingles is not caused by being exposed to someone infected with the virus.

What is the difference between the shingles and the chickenpox vaccine?

They contain the same vaccine; the shingles vaccine is at least 14X more concentrated, to try to evoke a strong immune response even in elderly people.