



Varicella-Zoster Virus



Primary infection with Varicella-zoster virus (human herpes virus type 3, HHV3) causes chickenpox. Following reactivation, zoster (shingles) develops.

Varicella-Zoster Virus is highly contagious and is transmitted aerogenically. The primary infection (chickenpox) is still almost exclusively a childhood disease today. Like with all herpes viruses a Varicella-zoster virus infection leads to a lifelong persistence.

The portal of entry is the nasopharyngeal space and the conjunctiva. From there, the virus undergoes a viremic phase in which it is transported by the blood to the skin, where the typical exanthema is produced. The disease confers an effective immunity. In immunodeficient patient, a VZV infection (or reaction) can affect other organs (lungs, brain) and manifest a severe, frequently lethal, course.

The initial infection with VZV manifests in the great majority of persons as chickenpox, an episodic papulous exanthem. After the symptoms of chickenpox have abated, the VZV persists in the spinal ganglia and perhaps in other tissues as well. Following reactivation, zoster (shingles) develops, whereby the virus once again spreads neurogenically and causes neuralgia as well as the typical zoster efflorescence in the skin segment supplied by the sensitive nerves. Reactivation is induced by internal or external influences and becomes possible when cellular VZV immunity drops off, after about of the age of 45 assuming normal immune defences.

Species	Disease	Symptoms	Mechanism of infection
Varizella-Zoster Virus (VZV)	Chickenpox	fever, exanthem accompanied by itch and small blisters	Aerogenic transmission by infected droplets
	Zoster (shingles)	Complications: pneumonia, meningitis, encephalitis	Smear infection

Infections may be diagnosed by:

Microscopy, PCR

Serology: Determination of specific antibodies based on the ELISA-technique

NovaLisa™ VZV IgA/IgG/IgM ELISA:

The NovaLisa™ VZV IgA/IgG/IgM ELISA is intended for the qualitative determination of IgA-/IgG- resp. IgM- class antibodies against Varicella-Zoster-Viruses in human serum or plasma (citrate).

Antigens:

Purified Varicella-Zoster-Virus antigens

Specific performance characteristics:

	Intraassay			Interassay			Sensitivity %	Specificity %
	n	Mean	CV %	n	Mean	CV %		
IgA	3	0,68	3,8	7	0,65	5,3	>90	>90
IgG	21	1,35	2,4	24	1,296	4,9	92,9	>95
IgM	8	1,19	5,2	16	1,19	4,2	88	>98

Order information:

ELISA	Number of determinations	Product number
Varicella-Zoster-Virus IgA	96	VZVA0490
Varicella-Zoster-Virus IgG	96	VZVG0490
Varicella-Zoster-Virus IgM	96	VZVM0490