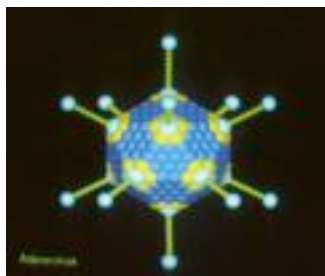


## Adenovirus



Adenoviruses cause a wide variety of diseases, which may occur singly or currently. The most important are infections of the upper (sometimes lower) respiratory tracts, the eyes, and the intestinal tract.

Adenoviruses are nonenveloped, 70 – 90 nm in size, and icosahedral. Their morphogenesis occurs in the cell nucleus, where they also aggregate to form large crystals. Their genome is a linear, double – stranded DNA.

They mainly infect cells of the epithelium in the eyes, the pharynx, the respiratory and the intestinal tract. After an incubation period of 5-10 days different symptoms can occur (see tab.).

Humans are the source of infection. Susceptibility is the rule. Generalized contamination of the population begins so early in the childhood that Adenovirus infections play more a significant role in children than in adults. About 5% of all common colds at infants under 5 years might be caused by Adenoviruses and they are the second most frequent diarrhea pathogen after rotaviruses.

Transmission of respiratory adenoviruses is primarily by droplet infection, but also as smear infections since the virus is also excreted in stool. Eye infections can be contracted from bathing water or, in the case of Adenovirus type 8 in particular, iatrogenically from insufficiently sterilized ophthalmological instruments. The enteral infections are also transmitted by the fecal-oral route, mainly by contact rather than in water or food.

Species	Disease	Symptoms	Mechanism of infection
Adenovirus	Infections of the respiratory tract	The take the form of rhinitis or abacterial pharyngitis, depending on the type as well as presumably on the disposition of the patient. They may also develop into acute, influenzalike infections or even, especially in small children, into a potentially fatal pneumonia.	The respiratory tract is most often infected by the types 1, 2, 5 and 6.
	Eye infections	May occur alone but are often concurrent with pharyngitis, range from follicular conjunctivitis to a form of keratoconjunctivitis that may even cause permanent partial loss of eyesight.	The eye is entryway of the adenovirus type 3 and 7, especially if PCF is transmitted by bathing water.
	Intestinal infections		

Infections may be diagnosed by:

Microscopy: Determination of Adenovirus in cell cultures  
 Serology: Determination of specific antibodies based on the ELISA-technique

Version 10.2010

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## NovaLisa™ Adenovirus IgA/IgG/IgM ELISA:

The NovaLisa™ Adenovirus IgA/IgG/IgM ELISA is intended for the qualitative determination of IgA-, IgG- and IgM-class antibodies against Adenovirus in human serum or plasma (citrate).

### Antigens:

Highly purified antigens of strain Adenoid 6

### Specific performance characteristics:

	Intraassay			Interassay			Sensitivity %	Specificity %
	n	Mean	CV %	n	Mean	CV %		
IgA	20	1.27	2.8	12	28.5	3.8	> 90	> 90
IgG	24	0.82	6.1	12	25.0	4.3	>95	71.4*
IgM	20	0.36	11.3	12	0.30	8.3	90	>95

\* preliminary due to small number of samples

### Order information:

ELISA	Number of determinations	Product number
Adenovirus IgA	96	ADVA0010
Adenovirus IgG	96	ADVG0010
Adenovirus IgM	96	ADVM0010