

# Rhinoviruses

## Rhinovirus Picornaviridae

Type NK ss (+) RNA

Source human

Transmission droplets, close personal contact

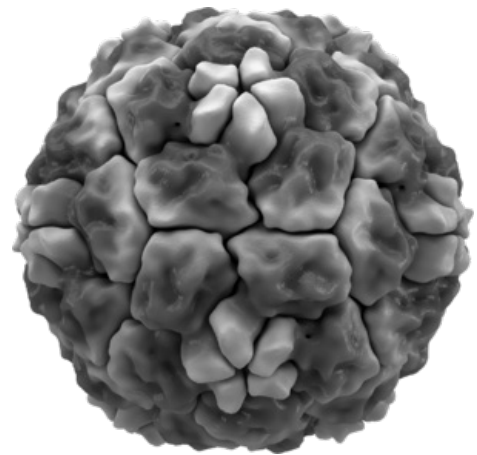
Occurrence cosmopolitan

Incubation time 20 - 48 hours

Disease respiratory system

Diagnostics PCR from nasal secretion, culture on human fibroblasts

Therapy symptom therapy, there is no specific treatment, the need to pay attention to hand and surroundings hygiene



Rhinovirus isosurface

Rhinoviruses (from Greek, rhis = nose) belong to the family Picornaviridae. These are **non-enveloped ssRNA viruses of positive polarity**. They are among **the most common human viruses** and cause diseases such as infectious rhinitis. Rhinoviruses are most prevalent in spring and autumn, affecting individuals of all ages.

## Characteristics

Due to its acidolability, the virus is unable to multiply in the digestive system and requires a low temperature (33 ° C) to replicate, which is achieved on the nasal mucosa. Rhinoviruses are also environmentally resistant, detergent-resistant and can survive on a variety of subjects for up to hours.

## Pathogenesis

The virus spreads through respiratory droplets or contact with a contaminated object. It enters the body through the nasal cavity, mouth or conjunctiva, most of which multiplies in the nasal mucosa. Infected cells release inflammatory mediators, which cause swelling of the mucosa, which results in the patient feeling a stuffy nose.

## Immunity

Transient - mucosal IgA is formed within a week, but disappears within a year and a half.

## Another disease caused by rhinoviruses

- bronchitis and lung inflammation in children and the elderly
- sinusitis and otitis media,
- worsening of bronchial asthma and chronic bronchitis.

## Resources

## External links

Rhinovirus

## References

HURYCH, Jakub and Roman ŠTÍCHA, et al. Medical Microbiology - Repetitorium [online]. first edition. 2020. pp. 219,220. Also available from <<http://www.mediciboni.cz/mikrobiologie/>>. ISBN 978-80-7553-844-4.