

## Human pathogen information sheet – hygiene keeps you safe!

### What are hantaviruses?

Hantaviruses occur around the world and cause a number of severe diseases. The pathogens are transmitted to humans via rodents such as mice and rats, and in Germany mostly by the bank vole. Various rodents spread different types of the virus, usually without falling ill themselves. The number of cases in humans fluctuates from year to year, probably depending on the rodent population and on how many animals carry the virus.

### How do hantaviruses spread?

#### *Via rodents*

The viruses are excreted by infected rodents in their spittle, faeces and urine. Even when dried, the pathogens are infectious for several days. Direct contact with the affected rodents is not necessary for infection. Usually, hantaviruses are inhaled, e.g. together with swirled up dust that contains the pathogens. Infection is possible by an animal bite as well. Viruses from contaminated earth may enter the body through small skin injuries, e.g. to the hands, when working in the garden. An infection from food that has become contaminated with excrement from infected rodents is also possible.

*Important: The pathogen types occurring in our area are not passed on from person to person.*

### What symptoms do the patients show?

The severity of disease progression can depend on the type of virus. Sometimes it will run its course unnoticed and without any symptoms.

The most common form in Germany usually starts out with sudden-onset fever persisting for about 3 to 4 days, accompanied by flu-like symptoms such as headaches, muscle pain and aching limbs. Additionally, there may be a reddening of the throat, coughing or visual problems as well as heightened sensitivity of the eyes to light. After a few days, patients frequently experience severe stomach pain with diarrhoea and vomiting. Cardiovascular problems are also possible. As the disease progresses, there may be temporary limitations to kidney function. The form of the disease observed in Germany usually heals without lasting damage and deaths are very rare.

### What's the incubation period – and how long are you contagious?

As a rule, the first symptoms appear 2 to 4 weeks after infection.

Patients are not contagious as transfer from person to person is not expected in the virus types occurring in Germany.

### Who is most at risk?

Persons in risk areas (see below) are particularly endangered during the following work:

- ▶ Work in forestry, cutting wood
- ▶ Work in agriculture
- ▶ Gardening
- ▶ Staying in or cleaning sheds, stables and houses where there are or were rodents, particularly when dust is swirled up
- ▶ Activities outdoors in areas with lots of rodents, such as jogging or camping

### What should I do if I fall ill?

- ▶ If you suspect that you may have hantavirus, see your doctor. All necessary steps will be taken then.
- ▶ Only the symptoms are usually treated (e.g. pain, fever or treatment for renal failure).
- ▶ Patients do not need to be isolated, since they are not contagious.

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### How can I protect myself?

In Germany, the danger of infection is higher in rural areas than in most urban areas. This also applies to the South and West of the Federal Republic. There, the probability of catching hantavirus is higher than in other parts of the country.

#### *Areas with increased risk of catching hantavirus include:*

- ▶ The Schwäbische Alb
- ▶ The Spessart
- ▶ The Fränkische Alb
- ▶ Northeast Hesse
- ▶ Lower Francony
- ▶ Western Thuringia
- ▶ The Odenwald
- ▶ The Teutoburger Forest
- ▶ Upper Swabia
- ▶ The Osnabrück area
- ▶ The Bavarian Forest
- ▶ The Münster region

*There is no effective vaccine against hantavirus yet.*

#### *Important advice for your protection:*

- ▶ Wash your hands thoroughly after being outdoors or in basements, attics or sheds.
- ▶ Fight mice and rats particularly in the area of human residential areas, such as basements, attics or sheds.
- ▶ Keep food safe and firmly closed to avoid attracting rodents. This also applies to animal feed.
- ▶ Dispose of waste in closable garbage bins and cans.
- ▶ Do not put food residue and animal waste in the compost.
- ▶ Dispose of nesting opportunities for rodents, such as bulky waste or waste heaps.
- ▶ Avoid contact with the excretions of rodents, specifically of mice.

If you have to remove mouse cadavers or faeces:

- ▶ Air the room for at least 30 minutes first and do not use a vacuum cleaner, since the viruses may be emitted through the exhaust air.
- ▶ If required, wear suitable breathing masks when cleaning (fine dust mask FFP3) and use disposable gloves.
- ▶ Moisten mouse droppings or corpses (e.g. with water and a detergent) to reduce the amount of dust produced.
- ▶ Put the animal corpse into a plastic bag that is closed carefully, and dispose of in household waste.
- ▶ Afterwards, clean the affected areas thoroughly with a household cleaner and dispose of the rags or sponges used.
- ▶ Important: Wash your hands afterwards!

### Where can I find out more?

Your local health authority can provide you with further advice and information. Since hantavirus infections must be reported, they will also have the latest information and be very experienced in dealing with the disease.

More (specialist) information is also available online from the Robert Koch Institute ([www.rki.de/hantaviren](http://www.rki.de/hantaviren)) and the Friedrich-Loeffler-Institute ([www.fli.bund.de](http://www.fli.bund.de)). For information on how hygiene can guard against infection, please visit the Federal Centre for Health Education website ([www.infektionsschutz.de](http://www.infektionsschutz.de)).



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