



## Information about zoonotic hepatitis E virus for pig farmers

### What is zoonotic hepatitis E virus?

Zoonotic hepatitis E virus, abbreviated HEV, causes hepatitis, i.e. liver inflammation. The virus can spread between humans and animals, either directly or via food. Zoonotic hepatitis E virus is mainly found in pigs, but it has also been found in wild boars and cervids, such as moose and white-tailed deer. The virus occurs widely around the world, including Finland. The prevalence of infections in wild animals and pigs for slaughter is mainly lower in Finland than in other countries. Therefore, the risk of contracting zoonotic hepatitis E virus is not high, and in Finland only a low number of cases are recorded each year.

Some hepatitis E viruses are zoonotic, while some can spread only from person to person or only among certain animal species. This text focuses only on zoonotic hepatitis E virus.

### Where can you get infected with zoonotic hepatitis E virus?

Zoonotic hepatitis E virus is excreted in the faeces of an infected animal. For humans to be infected, viruses must end up in the mouth, for example via one's hands, when working with pigs. The virus can be present in the blood and organs of pigs or game animals, so the infection can be obtained through contaminated food made from pig products.

Pig farmers are continuously exposed to hepatitis E virus, as most pigs become infected in Finland at some point during their lives. Pigs are most often infected at a young age, and 2-4 months old pigs most often shed the virus. The infection does not cause any symptoms in pigs. The virus survives for a long time at room temperature.

Pig farmers are likely to be infected directly by pigs and the environment of piggeries, i.e. in practice via feces, urine or blood. From an infected pig, viruses can end up in the person's mouth or on the mucous membranes directly or indirectly, for example through contaminated hands or protective gloves. One can also become infected if feces or blood end up in an unprotected wound.

### What symptoms does zoonotic hepatitis E virus cause?

In humans, the intensity of symptoms varies in zoonotic hepatitis E infection, but most often the infection is asymptomatic or mild. The virus can cause liver inflammation. In mild cases, the symptoms may resemble flu, accompanied by yellowing of the eyes and skin, i.e. jaundice, as signs of a liver infection. The patient usually recovers without treatment, but the symptoms can be alleviated with supportive care if necessary. However, people with reduced immunity, such as the elderly, transplant patients and those with liver disease, can become seriously ill. In such cases, the infection can also persist for a long time, leading to liver failure and, in the most severe case, even death. The hepatitis vaccines that are currently used in Finland or elsewhere in the Western world are not targeted against hepatitis E virus.

In animals, hepatitis E virus infection is asymptomatic, and infection cannot be diagnosed visually in a living or dead animal.

### How can you protect yourself from zoonotic hepatitis E virus?

Since infected pigs cannot be identified and eradicating the virus from the pig farm is not feasible, pig farmers can protect themselves from hepatitis E virus by working hygienically and following general disease protection measures. In the pig farms, the most important thing is to wear protective coveralls, gloves, and boots, the purity of which is ensured by washing them at least at +60 °C. Persons working in piggeries should avoid touching their face while working and should not eat in the piggery. Hands should always be washed after removing protective clothing and leaving the piggery. Any wounds should be covered, and protective gloves should always be worn in case of hand wounds.