



Information about zoonotic hepatitis E virus for consumers

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.

For consumers, the most common source of a hepatitis E virus infection is raw or insufficiently cooked food containing pork or pig liver, such as sausages. Foods containing wild boar and deer also carry a potential risk. Since hepatitis E virus is not only present on the surface of the meat and organs of an infected animal, but also inside them, meat products should be cooked until well-done. Freezing does not destroy hepatitis E virus, and the virus survives well also at room temperature. When preparing food, cross-contamination can also occur: viruses can be transferred through hands and kitchen utensils from meat to other foods. In Finnish food, the risk of infection is quite low, as only a few pigs carry the virus at slaughter age. In Finland, for example, cooked cold cuts, wieners and grilled sausages sold in stores are safe without extra preparation, as they have reached a sufficiently high temperature already at the manufacturing stage. Raw sausages, on the other hand, must be cooked by the consumer to be safe to consume. Cold smoked sausages are also produced without heat treatment. To assess their safety, further studies are needed, as hepatitis E virus has been detected in some foreign salami-type sausages on sale.

Pet food should also be handled hygienically, as hepatitis E virus infection can also be contracted from raw foods contains pig, wild boar, or deer.

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 animal.

How can you protect yourself from zoonotic hepatitis E virus?

The consumers can protect themselves against hepatitis E virus by cooking foods containing pork, wild boar and deer until well-done. Therefore, it is not necessary to avoid foods containing the meat or organs of pigs, wild boars or deer. Exposure to hepatitis E virus cannot be completely ruled out in products that do not go through heat treatment procedures (for example cold smoked sausages). The consumers who



belong to risk groups should preferably avoid non-heat-treated meat products, especially if the meat is imported to Finland. In Finnish products, it is unlikely that hepatitis E virus would occur. It is important to follow kitchen hygiene rules when preparing raw foods and preparing food from them. Washing hands after touching raw pork products is a simple and effective measure to prevent the spread of the virus. When handling raw pork products, persons should avoid touching their face, especially their mouth, with hands. In addition, hygienic handling involves ensuring that raw meat and organs do not come in contact with other food products, such as vegetables, even via cutting boards or knives. If raw pork, wild boar, or deer meat is fed to dogs or cats, the food bowl should be cleaned after feeding to prevent food debris from forming a risk in the home. Persons in close contact with pigs, wild boars or deer, should wash their hands after touching the animals and avoid touching their face before washing hands