

What it is:

A viral zoonotic infectious disease that causes inflammation of the liver. It is an **RNA** virus belonging to the *Hepeviridae* family. Various **animal species can serve as reservoirs** and potential sources of infection for humans. Generally self-limiting in most immunocompetent patients, it can evolve into severe forms in vulnerable entities, such as pregnant women and individuals with pre-existing liver impairment.

Classification



GENOTYPES 1 and 2

Primarily associated with **human infections** in relation to epidemics in developing countries, and are mainly **transmitted through contaminated water**.



GENOTYPES 3 and 4

Common in animals in industrialized countries and can **infect humans** through the **consumption of undercooked meat**, mainly from domestic and wild swine (pigs and wild boars).

Categories



PIGS



RABBITS



DEER

In addition to **humans**, the Hepatitis E virus has been identified/detected in various animal species. In Italy, **domestic swine** (pigs) and **wild swine** (wild boars) are considered the main reservoirs of the virus. Other animals, such as **domestic and wild ruminants** (e.g., sheep/goats, cervids, etc.), and lagomorphs (e.g., rabbits and hares), are also susceptible to infection.

Origin and Transmission

- **Primarily via the oral-fecal route**, through the ingestion of contaminated water or food (e.g., from fecal residues and/or from organs of infected animals, such as liver and guts/intestines).
- **In humans**, infection can occur by consuming raw or undercooked meat from infected animals, such as pigs and game, as well as seafood from contaminated waters.
- More rarely, **the person-to-person transmission** has been described through blood transfusions and organ transplants.
- **Seasonal spread** in certain areas, with peaks of incidence varying depending on climate conditions and local dietary habits.
- **In tropical countries** with poor hygienic conditions, cases tend to increase during the rainy season, when contaminated water is more prevalent.
- **In industrialized countries**, infection is often linked to the consumption of contaminated food and can occur throughout the year.

Symptoms and Impacts

ANIMALS

They do not show obvious symptoms. In some cases, clinical signs such as **loss of appetite**, **lethargy**, and, rarely, **jaundice** may appear. The lack of clear symptoms in animals makes it difficult to quickly identify infection outbreaks and implement containment measures.

HUMANS

It can range from an asymptomatic form to acute liver disease.

Common symptoms:

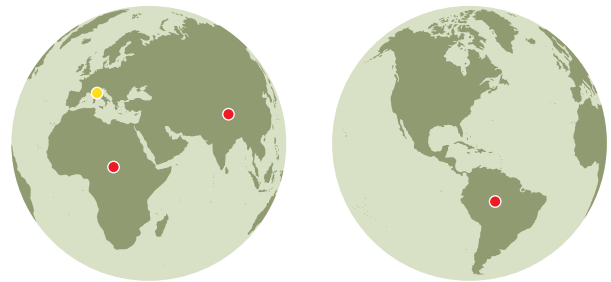
After a relatively **long incubation period** (15-64 days), fatigue, nausea, vomiting, abdominal pain, and jaundice. In most cases, the disease is self-limiting and resolves spontaneously.

It can evolve into severe forms:

- In **pregnant women**, the virus can cause a fulminant form of hepatitis with a **mortality rate of up to 25%**, especially in the third trimester of pregnancy.
- In **individuals with pre-existing liver diseases**, the infection can significantly worsen liver function.
- **Immunocompromised individuals**, such as organ transplant recipients or people with HIV or on immunosuppressive therapy, may develop chronic forms of Hepatitis E, with progressive liver damage.

Geographical Distribution

Endemic in many developing regions of the world, particularly in **Asia, Africa, and Latin America**, where sanitary conditions may be inadequate. However, sporadic cases and outbreaks have been consistently reported in **Europe, including Italy**, in relation to the consumption of contaminated food products.



Preventive Measures

To reduce the risk of HEV infection in humans, it is essential to adopt **proper hygiene measures**, such as ensuring **access to safe drinking water** sources and practicing **correct food handling and cooking**, particularly for pork and game meat. **Currently, there is no vaccine available for Hepatitis E in Europe**; therefore, prevention relies primarily on safe hygiene and food practices.

References

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