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# Hepatitis E

## Frequently Asked Questions

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### 1. What is Hepatitis E?

Hepatitis E is a disease that causes inflammation of the liver (hepatitis). It is caused by infection with the Hepatitis E Virus. The disease was first documented in 1955 when it caused a hepatitis epidemic in New Delhi, India, after faecal contamination of the city's drinking water. It causes a sudden illness which usually improves, even in the absence of treatment. In rare cases it can develop into liver failure, or cause long-term illness.

### 2. Are there different types of Hepatitis E?

There are 4 types of Hepatitis E based on viral genetics and these are called genotypes. Genotype 1 and 2 are only found in humans, and are usually responsible for outbreaks. Genotype 3 and 4 also occurs in animals, especially swine (pigs), and human cases caused by these genotypes are infrequent.

### 3. Who can get Hepatitis E?

Hepatitis E affects individuals from all ages. The disease occurs more commonly in teenagers and young adults. People living in, or traveling to areas with inadequate sanitation and hygiene practices are at greater risk.

### 4. Where does Hepatitis E occur?

Hepatitis E occurs worldwide, but is more common in developing countries in Asia, Africa and the Middle East. Outbreaks usually occur in areas where there is poor sanitation, but cases can also occur in industrialized countries in Europe, Asia and North America. Although not many clinical cases of Hepatitis E have been described in South Africa, it has been shown to occur in the country.

### 5. How is Hepatitis E transmitted?

The virus is transmitted via the faecal-oral route, meaning water and food contaminated with human faeces. The virus can also spread through consumption of raw or undercooked meat from infected animals, transfusion of infected blood and from mothers to their babies immediately before or after birth.

### 6. What is the incubation period for Hepatitis E?

The incubation period ranges from 2-10 weeks, with an average of 5-6 weeks.

## **7. What are the signs and symptoms of Hepatitis E?**

Symptoms of infection include fatigue, fever, loss of appetite, nausea, vomiting, abdominal pain, joint pain and jaundice (yellow discolouration of skin and eyes, with dark urine and pale clay-coloured stools). Symptoms last between 1 – 6 weeks, and hospitalization is usually not required. Individuals can also be infected with Hepatitis E and not show any symptoms.

## **8. What are the complications of Hepatitis E?**

Long-term (chronic) illness can arise, but occurs mostly in individuals who have compromised immune systems. This includes those receiving chemotherapy, individuals who underwent solid-organ transplantation, and HIV-infected individuals. In rare cases infection with Hepatitis E virus can lead to liver failure (fulminant hepatitis) and death. Pregnant women are at higher risk for fulminant hepatitis.

## **9. How is Hepatitis E diagnosed?**

During the incubation period, there is an increase of virus particles within the blood. By the time that symptoms start showing, both IgG and IgM antibodies to Hepatitis E virus can be detected in the serum. When IgG antibody levels increase and IgM antibody levels decrease, the virus is being cleared and recovery is taking place. Hepatitis E virus infection is clinically indistinguishable from other viral hepatitis, and further serological or molecular testing is necessary. Diagnosis is based on detecting antibodies to Hepatitis E virus in serum through immunoassays. In South Africa the National Health Laboratory Service (Braamfontein laboratory) and several private sector laboratories (including Ampath, Lancet and Pathcare) offers serological testing for Hepatitis E antibodies (IgG and IgM). A more specialized test involves detecting the genetic material (RNA) of the virus through reverse transcription polymerase chain reaction (RT-PCR), but this test is not routinely performed in the country.

## **10. Is Hepatitis E a notifiable condition?**

Yes, Hepatitis E is a notifiable condition. According to the National Health Act, 2003 (Act No. 61 of 2003), Hepatitis E is a category 2 notifiable medical condition and should be notified through a written or electronic notification to the Department of Health within 7 days of diagnosis by health care providers as well as private and public health laboratories.

## **11. How is Hepatitis E treated?**

There is no specific treatment available for acute Hepatitis E, and the infection usually resolves on its own. Supportive treatment can be administered and patients are usually advised to ensure adequate intake of nutrition and fluids, to rest and to avoid alcohol consumption. In severe cases, hospitalization will be required. Due to the increased risk of liver failure and death in pregnant women, particularly in second or third trimester, pregnant women with hepatitis E should be closely monitored. Specific antiviral therapy may be considered in high risk patients.

## **12. How can Hepatitis E be prevented?**

Since the virus is mainly transmitted through the faecal-oral route, the most important aspects of prevention are proper sanitation, provision of safe drinking water, safe food practices, and adequate personal hygiene. Travellers to areas where Hepatitis E infection is more common, for example India, Bangladesh, Egypt, Mexico, and China; should refrain from consuming raw or undercooked food and only consume filtered water. A vaccine against Hepatitis E virus has been developed in China, but is currently not available in South Africa.

### **13. Where can I find out more information?**

Additional information on Hepatitis E can be accessed from the following sources:

#### **For the public:**

- World Health Organization fact sheet on Hepatitis E:  
<http://www.who.int/mediacentre/factsheets/fs280/en/>
- US Centers for Disease Control and Prevention Viral Hepatitis - Hepatitis E Information: <http://www.cdc.gov/hepatitis/hev/>

#### **For health care professionals:**

- US Centers for Disease Control and Prevention Hepatitis E FAQs for Health Professionals: <http://www.cdc.gov/hepatitis/hev/hevfaq.htm>
- Medical / clinical related queries:
  - Centre for Vaccines and Immunology, National Institute for Communicable Diseases (NICD) Tel: +27 11 386 6387
  - NICD Hotline Tel: +27 82 883 9920 (for use by healthcare professionals only)
- Laboratory related queries:
  - NHLS Braamfontein Immunology Laboratory Tel: +27 11 489 9412