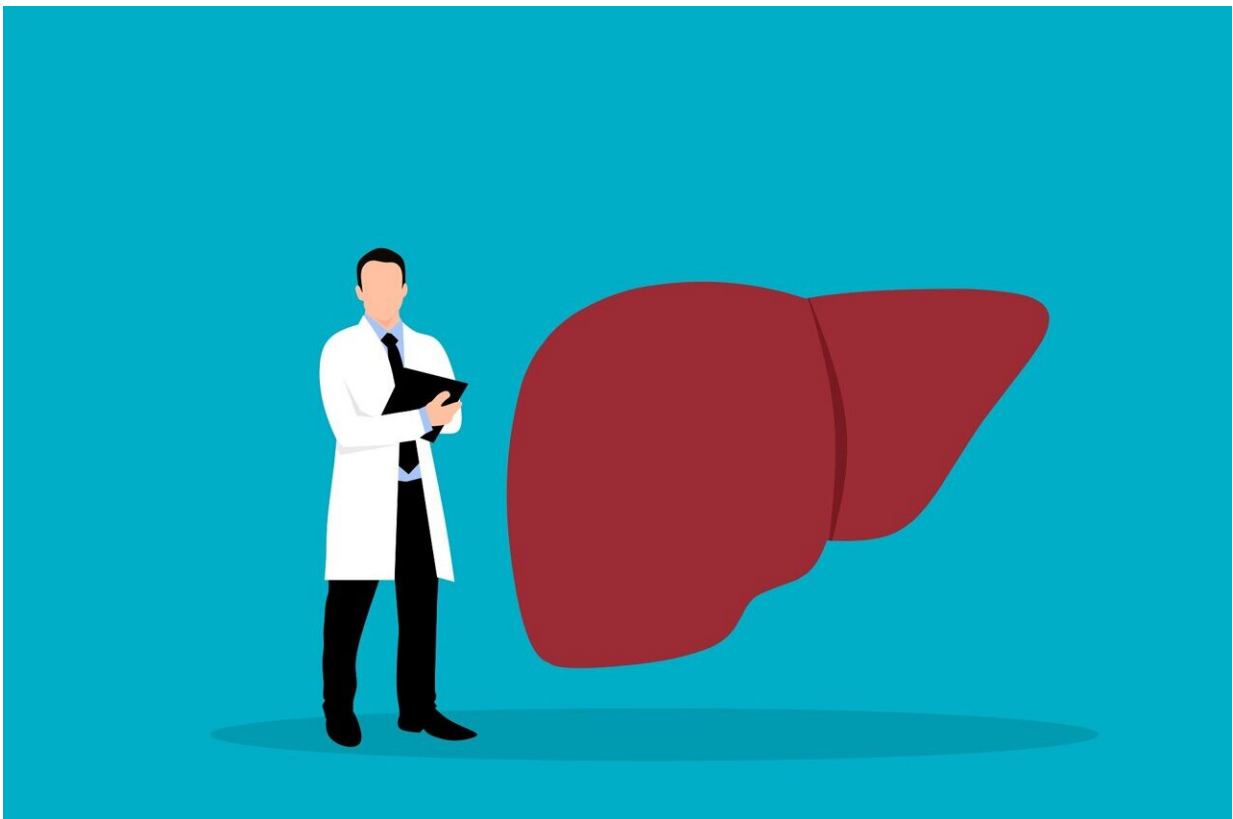


Chad hepatitis E outbreak: How the dangerous liver disease spreads and how it can be treated

May 17 2024, by Kolawole Oluseyi Akande



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The World Health Organization recently [announced](#) an outbreak of hepatitis E in the eastern Ouaddai province of Chad. Between January and April 2024, 2,093 suspected hepatitis E cases were reported from two health districts. The Conversation Africa asked Kolawole Oluseyi Akande, a consultant gastroenterologist and hepatologist, to explain the causes, symptoms, spread and treatment of hepatitis E.

What is hepatitis and how many types are there?

Hepatitis is an [inflammation of the liver](#). It is the way the liver responds to various injuries or harmful agents.

Hepatitis is caused by a [variety of infectious viruses and noninfectious agents](#), leading to a range of health problems, some of which can be fatal.

Common causes include viruses (viral hepatitis), excessive consumption of alcohol (alcohol hepatitis), excessive fat in the liver (steato-hepatitis), drugs and toxins (toxic hepatitis) and autoimmunity ([autoimmune hepatitis](#)).

There are also a number of types of the disease. The most common, especially in developing countries like Chad, are the viral hepatitises. There are [five main viruses that cause viral hepatitises](#). They are hepatitis A, B, C, D and E viruses. They are not strains of the same virus but different viruses. The outbreak in Chad was of hepatitis E.

All the various types of hepatitis cause [liver disease](#) but differ in modes of transmission, severity of the illness, geographical distribution and prevention methods. An estimated [354 million people](#) globally live with hepatitis B or C.

[Globally](#), approximately 939 million (1 in 8) individuals have ever experienced hepatitis E infection. Fifteen million to 110 million individuals have recent or ongoing hepatitis E infection as at 2020. It is widespread with [prevalence rates](#) of 21.8%, 15.8%, 9.3%, 8.5% and 7.3% in Africa, Asia, Europe, North America and South America respectively. Its presentation ranges from asymptomatic to severe acute failure which can lead to death.

How does hepatitis E spread?

Of the [eight genotypes of hepatitis E virus](#), four are known to affect humans.

Genotypes 1 and 2 are spread by faeco-oral routes, especially through drinking contaminated water. This is why these types of hepatitis E are common in underdeveloped countries of Asia and Africa with poor sanitation, poor hygiene, and lack of safe drinking water.

They are the types that can affect large numbers of people in epidemics. Genotypes 3 and 4 are [spread](#) through ingestion of contaminated meat, especially swine, goats and cattle, and sometimes through contamination of water by feces of animals.

So, these are diseases of animals that can spread to humans (zoonotic diseases) and therefore tend to affect people who deal with animals like farmers, butchers and veterinarians.

There is [evidence](#) that hepatitis E virus can be spread through blood transmission. A few [developed countries](#), such as the Netherlands, United Kingdom, France and Japan, have incorporated hepatitis E RNA screening of blood donations before transfusion. The RNA screening is the most reliable way of detecting hepatitis E virus in the blood or stool.

What are the risks to humans?

Hepatitis E is a global health problem with about [20 million cases](#) occurring annually, three million symptomatic cases and 60,000 deaths.

Hepatitis E can cause acute hepatitis without symptoms, or mildly symptomatic, or sometimes severely symptomatic illness. Pregnant women are more likely to experience severe illness. It could also be severe in people with already established liver diseases, the elderly, and those whose immunity is low (immunocompromised).

In a survey of 177 asymptomatic food handlers across 12 restaurants in Ibadan, south-west Nigeria, we [found](#) 9% had evidence of acute hepatitis E in their blood. Asymptomatic people with hepatitis E virus can [transmit](#) the virus if their blood is given to another person.

In pregnancy it can lead to severe disease or death of the mother and the baby. The mortality rate in pregnancy may be as high as [30%](#).

Symptoms of hepatitis include malaise, weakness, yellowness of the eyes, upper abdominal pain, dark urine and if there is liver failure, alteration in the level of consciousness and bleeding tendencies.

Hepatitis E is not distinguishable, based on symptoms and signs, from other forms of [viral hepatitis](#). Hepatitis E is the [most frequent cause](#) of acute hepatitis globally. In certain circumstances, especially in organ transplant patients, hepatitis E can lead to chronic hepatitis (lasting for more than three months) and this can lead to liver cirrhosis. This is [quite common in developed countries where there are many](#) organ transplant patients who are on immunosuppressive medications.

Is it preventable?

Yes. What's needed is adequate personal hygiene, proper waste disposal systems and the provision of safe and clean water. Another way to prevent hepatitis E is to avoid uncooked or undercooked meat.

A [study](#) suggests that heating food to 71°C for 20 minutes could inactivate hepatitis E virus.

There is also a vaccine against hepatitis E available in [China](#), but this is not widespread yet.

How is it controlled?

Treatment of hepatitis E when symptomatic includes bed rest and avoidance of drugs and substances that can further damage the liver.

Ribavirin and interferon alpha are drugs that are sometimes used, although not for [pregnant women](#).

Those with acute liver failure or liver cirrhosis may need a liver transplant.

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