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Hepatitis A Virus



- Hepatitis A is a viral liver disease that can cause mild to severe illness.
- It is spread by faecal-oral (or stool to mouth) transmission when a person ingests food or drink contaminated by an infected person's stool.

- The disease is closely associated with poor sanitation and a lack of personal hygiene habits, such as hand-washing.
- An estimated 1.4 million cases of hepatitis A occur annually.
- Epidemics can be explosive in growth and cause significant economic losses: 300 000 were affected in one Shanghai outbreak in 1988.
- Improved sanitation and the Hepatitis A vaccine are the most effective ways to combat the disease.

**Hepatitis A** is a liver infection caused by the hepatitis A virus (HAV). The virus is spread when an uninfected (or unvaccinated) person eats or drinks something contaminated by the stool of an HAV-infected person: this is called faecal-oral transmission. The disease is closely associated with inadequate sanitation and poor personal hygiene. Unlike hepatitis B and C, hepatitis A infection does not cause chronic liver disease and is rarely fatal, but it can cause debilitating symptoms.



#### Related links

- General information on viral hepatitis
- <u>WHO hepatitis A vaccine position paper</u> <u>pdf, 193kb</u>

**Hepatitis A** occurs sporadically and in epidemics worldwide, with a tendency for cyclic recurrences. Worldwide, HAV infections account for an estimated 1.4 million cases annually. Epidemics related to contaminated food or water can erupt explosively, such as an epidemic in Shanghai in 1988 that affected about 300 000 people.

The disease can wreak significant economic and social consequences in communities. It can take weeks or months for people recovering from the illness to return to work, school or daily life. The impact on food establishments identified with the virus, and local productivity in general, can be substantial.

## Symptoms

The symptoms of hepatitis A range from mild to severe, and can include fever, malaise, loss of appetite, diarrhoea, nausea, abdominal discomfort, dark-coloured urine and jaundice (a yellowing of the skin and whites of the eyes). Not everyone who is infected will have all of the symptoms. Adults have signs and symptoms of illness more often than children, and the severity of disease and mortality increases in older age groups. Infected children under six years of age do not usually experience noticeable symptoms, and only 10% develop jaundice. Among older children and adults, infection usually causes more severe symptoms, with jaundice occurring in more than 70% of cases. Most people recover in several weeks - or sometimes months - without complications

## Who is at risk?

Anyone who has not had been infected previously or been vaccinated can contract hepatitis A. People who live in places with poor sanitation are at higher risk. In areas where the virus is widespread, most HAV infections occur during early childhood. Other risk factors for the virus include injecting drugs, living in a household with an infected person, or being a sexual partner of someone with acute HAV infection.

## Transmission

HAV is usually spread from person to person when an uninfected person ingests food or beverages that have been contaminated with the stool of a person with the virus. Blood borne transmission of HAV occurs, but is much less common. Waterborne outbreaks, though infrequent, are usually associated with sewage-contaminated or inadequately treated water. Casual contact among people does not spread the virus.

## Treatment

There is no specific treatment for hepatitis A. Recovery from symptoms following infection may be slow and take several weeks or months. Therapy is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhoea.

# Prevention

Improved sanitation and Hepatitis A immunization are the most effective ways to combat the disease.

Adequate supplies of safe-drinking water and proper disposal of sewage within communities, combined with personal hygiene practices, such as regular hand-washing, reduce the spread of HAV.

Several hepatitis A vaccines are available internationally. All are similar in terms of how well they protect people from the virus and their sideeffects. No vaccine is licensed for children younger than one year of age.

Nearly 100% of people will develop protective levels of antibodies to the virus within one month after a single dose of the vaccine. Even after virus exposure, one dose of the vaccine within two weeks of contact with the virus has protective effects. Still, manufacturers recommend two vaccine doses to ensure longer-term protection of about 5 to 8 years after vaccination. Millions of people have been immunized with no serious adverse events. The vaccine can be given as part of regular childhood immunizations programmes and with vaccines commonly given for travel.

## Where is the disease found?

Geographic areas can be characterized as having high, intermediate or low levels of HAV infection.

• High: In developing countries with very poor sanitary conditions and hygienic practices, the lifetime risk of infection is greater than 90%. Most infections occur in early childhood and those infected do not experience any noticeable symptoms. Epidemics are uncommon because older children and adults are generally immune. Disease rates in these areas are low and outbreaks are rare.

- Intermediate: In developing countries, countries with transitional economies and regions where sanitary conditions are variable, children escape infection in early childhood. Ironically, these improved economic and sanitary conditions may lead to higher disease rates, as infections occur in older age groups, and large outbreaks can occur.
- Low: In developed countries with good sanitary and hygienic conditions infection rates are low. Disease may occur among adolescents and adults in high-risk groups, such as injecting-drug users, homosexual men, persons travelling to high-risk areas, and in isolated populations, e.g. closed religious communities.

### Immunization efforts

Planning for large-scale immunization programmes should involve careful economic evaluations and consider alternative or additional prevention methods, such as better sanitation and health education for improved hygiene.

Whether or not to include the vaccine in routine childhood immunizations depends on the local context, including the level of risk for children. Several countries, including Argentina, China, Israel and the United States have introduced the vaccine in routine childhood immunizations. Other countries recommend the vaccine for persons at increased risk of hepatitis A, including travellers to countries where the virus is endemic, men who have sex with men, or persons with chronic liver disease (because of their increased risk of serious complications if they acquire HAV infection). Recommendations for hepatitis A vaccination in outbreaks should also be site-specific, including the feasibility of rapidly implementing a widespread immunization campaign. Vaccination to control community-wide outbreaks is most successful in small communities, when the campaign is started early and when high coverage of multiple age groups is achieved. Vaccination efforts should be supplemented by health education to improve sanitation and hygiene practices.



#### www.who.int/en/

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