

# Hepatitis A

## Traveler Summary

### Key Points

- | Hepatitis A is a viral infection of the liver occurring worldwide (especially in developing countries) that is acquired through consumption of fecally contaminated food or through close contact with infected persons via the fecal-oral route (including oral-anal sex).
- | Risk is increased for travelers going to countries with poor general sanitation or those who engage in unsafe oral or anal sex practices with infected persons.
- | Symptoms are generally mild and may include nausea, loss of appetite, stomach pain, weakness, fever, dark urine, and jaundice (yellow eyes and skin).
- | Consequences of infection rarely occur but can include liver failure, especially in older adults and people with underlying liver disease.
- | Prevention includes observing standard food and beverage precautions, hand-hygiene measures, and safer sex practices.
- | Hepatitis A (HepA) vaccine is routinely given as 2 doses, 1 each at 0 and 6 to 18 months. A single dose at any time before departure will provide protection for healthy persons. A combination hepatitis A and hepatitis B (HepA-HepB) vaccine is also available.
- | Vaccine side effects are most commonly injection-site reactions.
- | Duration of vaccine protection following a completed series is at least 40 years; no booster is required.
- | Postexposure prevention for persons exposed to hepatitis A virus (HAV) includes HepA vaccine, plus immune globulin (IG) in certain individuals (ideally within 2 weeks of exposure).

### Introduction

Hepatitis A, caused by HAV, is an infection of the liver occurring worldwide that is acquired through consumption of fecally contaminated foods or contact with infected persons via the fecal-oral route (including oral or anal sex), resulting in liver inflammation and dysfunction.

### Risk Areas

HAV infection occurs worldwide but is most common in developing countries (especially in Africa, Asia, Central and South America, the Middle East, and the Western Pacific) with inadequate sanitation, limited access to clean water, and poor hygienic conditions. Most developed countries with good sanitary conditions and hygienic practices have lower rates of HAV infection; however, risk may be increased in certain areas with variable sanitary conditions or due to consumption of imported HAV-contaminated food from global sources.

### Transmission

HAV is predominantly transmitted through consumption of fecally contaminated foods (e.g., undercooked shellfish, raw or inadequately cooked or frozen foods [including fruits and vegetables]), water, or ice. The virus is also spread through person-to-person contact via the fecal-oral route (including oral or anal sex) or via food contaminated by acutely infected food handlers; transmission via contaminated blood is uncommon. The virus can be shed in stool several weeks before and up to 3 weeks after onset of symptoms.

HAV is relatively resistant to heat and freezing; thus, it survives well in the environment outside the human host. The virus can persist on hands for several hours and in room-temperature food for considerably longer.

### Risk Factors

Risk is high for travelers going to developing countries and highest for travelers going to countries with intermediate or high levels of transmission and who will have a prolonged stay, live in or visit rural areas, eat or drink frequently in high-risk situations, have close physical contact with local persons (especially young children) in settings with poor sanitary conditions,

or have unsafe oral or anal sex with infected persons. In any affected country, even the most hygienic restaurant could be risky because of a food handler who is a symptom-free carrier of HAV. Risk is also increased for travelers who will travel outside prearranged, fixed itineraries (including common tourist packages), although cases can also occur with standard tourist itineraries or accommodations. Consumption of undercooked shellfish in low-infection rate countries may also cause disease.

## Symptoms

Symptoms most commonly appear within 15 to 50 days (average: 28 days) following exposure and include nausea, loss of appetite, stomach pain, weakness, fever, dark urine, and jaundice (yellow eyes or skin). HAV infection can range from mild illness (lasting 1-2 weeks) to severe disease (lasting several months). In young children, HAV usually causes either symptom-free infection or very mild illness without jaundice; adults are more likely to have symptomatic infection.

## Consequences of Infection

Serious illness rarely occurs, but complications can include severe liver inflammation, which may progress to liver failure in older adults and persons with underlying liver disease. Prolonged or worsening symptoms, lasting from 6 months to a year, may occur in some infected older children and adults. Death is rare in previously healthy individuals.

## Need for Medical Assistance

Travelers who develop symptoms of or who have been exposed to HAV should seek medical attention. Due to the long incubation period, HepA vaccination (alone or with IG) may prevent or reduce the duration and severity of HAV infection, if given as soon as possible after exposure (ideally within 2 weeks).

## Prevention

### Nonvaccine

Observe food and beverage precautions and hand-hygiene measures (regardless of immunization status); see *Food and Beverage Precautions*. Also observe safer sex practices.

### Vaccine

HepA vaccines (inactivated) are given as routine childhood vaccinations and to certain at-risk persons. Following 2 doses, most persons will be protected for at least 40 years. A combined HepA-HepB vaccine is also available for persons 18 years and older. HAV infection results in lifelong protection against the disease after recovery.

For travel, HepA vaccination is recommended for:

- ┆ Susceptible travelers 6 months and older, traveling to or living in developing countries and areas of intermediate or high risk for HAV transmission, especially persons who plan frequent trips or have prolonged stays. Some experts recommend that travelers consider HepA vaccination regardless of destination.
- ┆ Susceptible travelers going to some developing countries who engage in risk behaviors (see Transmission, above).

IG, a human blood-derived product that can be used for all ages, is given as temporary protection if HepA vaccine cannot be used or is unavailable. Some older adults and persons with certain medical conditions may receive IG in addition to HepA vaccine.

### Side Effects

The most common side effects of HepA vaccine are mild and transient and include injection-site reactions such as pain, redness, warmth, swelling, and tenderness. Headache in some adults, feeding problems in children, and secondary respiratory tract infections have also been reported.

Persons with underlying medical conditions or those who have concerns about the vaccine should speak to their health care provider before vaccine administration.

### Timing

HepA vaccine is given as follows:

- | Routine, for infants and children aged 1-18 years: 2 doses, 1 each at 0 and 6 to 18 months.
- | Unimmunized travelers:
  - | Children aged 6-11 months: 1 dose (noncountable toward completion of the routine series) followed later by 2 additional age-appropriate doses according to the routine schedule
  - | Persons 1 year and older: 2 doses at least 6 months apart
- | A single dose at any time before departure, even on the way to the airport, will provide full protection for healthy persons; dose 2 should be given 6 to 18 months later.

HepA-HepB combination vaccine is given as follows:

- | Persons 18 years and older: 3 doses, 1 each at 0, 1, and 6 months.
- | If earlier protection is needed for travel, an accelerated schedule may be given: 4 doses, 1 each on days 0, 7, and 21 to 30 and a booster dose at 12 months. This regimen should be considered for departures occurring in less than 6 months (if hepatitis B virus protection is also needed) and should not be used unless at least 2 doses can be given prior to departure.

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