### Hepatitis A

#### Signs and Symptoms
- Abrupt onset of fever, headache, malaise, anorexia, vomiting, diarrhea, abdominal pain
- Jaundice
- Rare fatalities, particularly risk if chronic liver disease including chronic hepatitis B or C
- Younger children and very rare adults may have asymptomatic infection

#### Incubation
15–50 days, with an average of 30 days

#### Case classification
- **Clinical**: acute illness, discrete onset of a consistent symptoms (fever, headache, nausea, diarrhea, anorexia, vomiting, abdominal pain) and either jaundice (bilirubin ≥ 3.0) or elevated ALT (≥ 200)
- **Confirmed**: Clinical & either IgM or PCR positive OR clinical with epi link to a confirmed case

#### Differential diagnosis
- Hepatitis B or C (do tests), chemical hepatitis (e.g., alcohol, some medications, natural products), autoimmune hepatitis, biliary disease (gallstones), malignancy, metabolic (e.g., Wilson’s)

#### Treatment
Supportive

#### Duration
Illness may be prolonged or relapse for months with continued virus excretion; communicable before onset until asymptomatic although longer excretion in children and if relapses

#### Exposures
Contaminated food or water, particularly during travel; contact with a case (household, sexual)

#### Laboratory Testing
- Serologic testing is available commercially; CDC genotypes for outbreak
- Spin serum, separate, freeze, send to PHL. CDE will complete special CDC manifest. See: [https://www.cdc.gov/laboratory/specimen-submission/pdf/form-50-34.pdf](https://www.cdc.gov/laboratory/specimen-submission/pdf/form-50-34.pdf).

#### Public Health Actions
- Identify potential sources of exposure: close contact with acute hepatitis A case, restaurant or group meals, contact with diapered children or staff in childcare setting, unchlorinated natural water, raw or partially cooked shellfish, travel outside the United States or contact with a recent arrival, poor hygiene (illicit drug use, experiencing homelessness)
- Additional investigation and intervention may be needed if suspected source is a commercial food or food service facility, shellfish, child care facility, or drinking water supply
- Exclude from food handling, child care or healthcare, or attending school or child care until diarrhea resolves and it is 7 days from onset of jaundice, unless other restrictions apply
- Investigate any symptomatic close contact as a new case
- Recommend hepatitis B vaccination if susceptible and with any ongoing risk for hepatitis B
- Identify persons with risk for exposure to case in communicable period including household and sexual contacts, ate food prepared by case, shared drugs, or childcare contacts
- Contacts who are susceptible should receive post-exposure prophylaxis See: [https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm](https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm)
  - For persons under 12 months: immune globulin (0.1 mL/kg). **For other healthy persons:** initiate first hepatitis A vaccine dose (single antigen) and schedule for second dose; if age >40 years or chronic illness: consider immune globulin along with hepatitis A vaccine. Note that IG dose differs for travel pre-exposure prophylaxis (Sec. 7B).
  - Warn contacts receiving PEP they may still develop hepatitis A and need good hand hygiene.
- If hepatitis A suspected based on exposure or other information, educate case about hygiene, particularly if doing food preparation for others, health care, or child care even if no lab confirmation is available
- Routine vaccination for risk groups (including persons experiencing homelessness)

#### Infection Control:
- Standard precautions in hospital plus contact precautions if diapered or incontinent patient
- Educate case about hand washing
1. DISEASE REPORTING

A. Purpose of Reporting and Surveillance

1. To identify individual cases, disease outbreaks and potential sources of ongoing transmission to prevent further spread of hepatitis A.

2. To identify contacts and assure timely prevention measures.

3. To educate contacts about signs and symptoms of disease, to facilitate early diagnosis.

4. To educate cases and contacts about transmission of hepatitis A and how to reduce their risk of infection.

B. Legal Reporting Requirements

1. Health care providers: notifiable to local health jurisdiction within 24 hours.

2. Health care facilities: notifiable to local health jurisdiction within 24 hours.

3. Laboratories: Hepatitis A virus (acute) by IgM positivity notifiable to local health jurisdiction within 24 hours (hepatocellular enzyme levels to accompany report). Specimen submission is on request only in outbreak setting.

4. Local health jurisdictions: notifiable to the Washington State Department of Health (DOH) Office of Communicable Disease Epidemiology (CDE) within 7 days of case investigation completion or summary information required within 21 days.

C. Local Health Jurisdiction Investigation Responsibilities

1. Begin investigation as soon as possible.

2. Administer appropriate infection control measures (see Section 5).

3. Report all confirmed cases (case definition below) to CDE. Complete the hepatitis A case report form (https://www.doh.wa.gov/Portals/1/Documents/5100/210-030-ReportForm-HepA.pdf) and enter the data into the Washington Disease Reporting System (WDRS).

2. THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

The hepatitis A virus (HAV) is a picornavirus.

B. Description of Illness

Onset is usually abrupt with fever, malaise, anorexia, nausea, diarrhea, and abdominal pain, followed within a few days by jaundice. Clinical illness ranges from asymptomatic to a disabling illness lasting weeks to several months. Rate of hospitalization is 11-22%. Up to 15% of cases are prolonged or relapsing for up to 6 months. Virus may be excreted during relapses. Fulminant hepatitis is rare, occurring most often in those with chronic liver disease, and may be fatal or require liver transplantation. Children under 6 years are likely to be asymptomatic, while older children and adults will develop symptoms.
Specific diagnostic testing is needed to distinguish hepatitis A from other viral hepatitides. Chronic infection does not occur and infection results in life-long immunity, demonstrated by detecting IgG antibody to hepatitis A virus (anti-HAV) in serum.

Hepatitis A is endemic in many developing countries; the incidence has been decreasing in the United States as routine use of childhood hepatitis A vaccine increases.

C. Hepatitis A in Washington

From 1989 to 2005, the state’s hepatitis A incidence fell from 70 to 1 case/100,000 population (<50 cases/year) as vaccination increased. Most recent exposures are during travel to endemic areas (mainly Mexico, Central America, or Asia). Other exposures are contact with an infected person in a child care center or household, oral sexual contact, poor hygiene associated with illicit drug use, restaurant meals, and ingestion of contaminated food or water. Multiple states had outbreaks during 2016-2018 affecting persons with reduced hygiene due to using street drugs or experiencing homelessness.

D. Reservoirs

Reservoirs for hepatitis A virus are acutely infected humans (with or without symptoms).

E. Modes of Transmission

Transmission is mainly person-to-person via the fecal-oral route, but also through fecal contamination of food or water by an infected food handler or through sewage. Certain foods such as produce or shellfish can be contaminated through hepatitis A-containing feces in water. Special risks for transmission include poor sanitation during food preparation, children adopted from overseas, and child care facilities with diapered children. Travel-associated cases are common. Recent outbreaks in this country have been linked to contaminated produce imported from endemic areas and outbreaks among persons with reduced hygiene due to experiencing homelessness or using street drugs.

The virus can remain infectious for at least one month at room temperature on environmental surfaces, and transfer on fomites is probably important in some settings (e.g., feces on toys in a child care facility). The virus is inactivated by high temperature (>185°F) and by some disinfectants including chlorine and formalin. Parenteral transmission (e.g., needlestick, transfusion) is rare because viremia is brief and virus levels are low, but in the past clotting factor concentrates were a risk.

F. Incubation Period

15–50 days, with an average of 30 days.

G. Period of Communicability

The highest levels of hepatitis A virus are present in feces from 1–2 weeks before the onset of symptoms until about 7 days after the patient becomes jaundiced (third week of illness). Children may excrete for longer periods than adults and if asymptomatic may not be recognized as having an infection. Virus may be excreted during illness relapses.

H. Treatment

No specific therapy is available; treatment is supportive.
3. CASE DEFINITIONS

A. Clinical Description

An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain),

AND

a) jaundice or elevated total bilirubin levels ≥ 3.0 mg/dL, OR b) elevated serum alanine aminotransferase (ALT) level ≥ 200 IU/L

AND

the absence of a more likely diagnosis.

B. Laboratory Criteria for Diagnosis

• Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive

OR

• Nucleic acid amplification test (NAAT; such as polymerase chain reaction [PCR] or genotyping) for hepatitis A virus RNA positive

C. Case Definition (2019)

Confirmed: 1) a case that meets the clinical case definition (acute onset with either jaundice or elevated aminotransferase level) and is laboratory confirmed OR 2) a case that meets the clinical case definition and occurs in a person with an epidemiologic link to a person with laboratory-confirmed hepatitis A infection (i.e., household or sexual contact with an infected person during the 15–50 days before the onset of symptoms).

4. DIAGNOSIS AND LABORATORY SERVICES

A. Diagnosis

The diagnosis is confirmed by detecting anti-HAV IgM in serum of a person with a compatible acute illness and documenting either jaundice or an elevated aminotransferase level. IgM can be detected at symptom onset and usually persists for 4–6 months. Since false positives anti-HAV IgM results occur, especially in older persons without consistent symptoms*, IgM tests should be done only for acute illnesses suggestive of hepatitis A.

Anti-HAV IgM can be detected after receipt of hepatitis A vaccine. Approximately 10–20% of adults will have detectable anti-HAV IgM 2–3 weeks after a dose of vaccine. Anti-HAV IgG is evidence of immunity, from either past infection or vaccination.


B. Services Available at the Washington State Public Health Laboratories (PHL)

Serology for hepatitis A is widely available at commercial laboratories. During an outbreak, Office of Communicable Disease Epidemiology may request a blood specimen from cases for molecular sequencing at the Centers for Disease Control and Prevention. Spin down serum immediately and refrigerate. Office of Communicable Disease
Epidemiology can complete the special CDC paperwork for hepatitis testing. See: https://www.cdc.gov/hepatitis/hev/pdfs/hrl_persamplehndlglgshpg_20080615.pdf.

Note that PHL require all clinical specimens have two patient identifiers, a name and a second identifier (e.g., date of birth) both on the specimen label and on the submission form. Due to laboratory accreditation standards, specimens will be rejected for testing if not properly identified. Also include specimen source and collection date.

C. Specimen Collection

Anti-HAV IgM serology is tested from symptom onset to 4–6 months after onset. For cases in special outbreak investigations, obtain a serum or EDTA tube, spin promptly, separate the serum into a shipping tube, and ship cold with PHL Virology form: https://www.doh.wa.gov/Portals/1/Documents/5230/302-017-SerVirHIV.pdf.

5. ROUTINE CASE INVESTIGATION

Interview the case and/or others who may be able to provide pertinent information.

A. Evaluate the Diagnosis

Confirm that the illness is consistent with acute hepatitis A infection. False positive IgM results are common, particularly in older persons without acute illness (see Section 4A).

B. Identify Potential Sources of Infection

Ask the case about potential exposures 15–50 days before onset of illness, including:

1. Close contact (e.g., household member, sex partner, shared a meal) with any person having an illness compatible with hepatitis A. Any person with compatible illness should be reported and investigated in the same manner as the index case. Obtain each person’s name and contact information.

2. Any restaurant or other food service meals. Obtain the name and location of the restaurant and date of the meal(s).

3. Any social gathering or other group setting where the case ate a meal. Obtain the date, location, and sponsor of the event.

4. Contact with diapered children, with children in child care or other setting for preschool children, or with staff of these facilities.

5. Exposure to unchlorinated drinking water at home, at work and during trips (obtain trip locations and dates).

6. Sources and dates of consumption of any raw or partially cooked shellfish (obtain name and location of restaurant or retail outlets).

7. Travel outside the United States or contact with a recent arrival (e.g., adopted child).

8. Illicit drug use, both injection and non-injection [due to associated poor hygiene].

C. Identify Exposed, Susceptible Contacts and Potential Sites of Transmission

Identify persons with significant opportunity for fecal-oral exposure during the period of communicability (1–2 weeks before the onset of symptoms until about 7 days after the patient becomes jaundiced), including:
1. Household and sexual contacts;
2. Persons who have eaten food prepared or handled by the case;
3. Child care contacts;
4. Persons who have shared illicit drugs with the case;
5. Others with ongoing close personal contact with the case.

Determine whether the contacts of the case are immune or susceptible to hepatitis A. Persons are considered immune to hepatitis A if they have received at least one dose of hepatitis A vaccine at least 28 days prior to the exposure, or if they have a history of laboratory confirmed hepatitis A. Serologic testing of contacts to determine immune status is generally not recommended because screening would result in delay of post-exposure prophylaxis. Symptomatic household and other close contacts of a confirmed case should be referred to a healthcare provider and tested for acute hepatitis A infection.

**Post-exposure Prophylaxis** Based on age and health status, susceptible persons recently exposed to hepatitis A virus should be administered one dose of single-antigen vaccine or immune globulin (IG) (0.1 mL/kg body weight) as soon as possible, within 2 weeks after exposure. Both vaccine and IG may be appropriate for some persons. Post-exposure prophylaxis has not been shown to prevent disease when given more than 2 weeks after exposure. Educate recipients on good hand hygiene habits because even timely post-exposure prophylaxis may not prevent infection.

- **For children aged <12 months and persons for whom vaccine is contraindicated:**
  IG should be used. Note: pregnancy is generally not a contraindication for vaccine.

- **For healthy persons aged over 12 months:** single-antigen hepatitis A vaccine at the age-appropriate dose is preferred to IG because of the vaccine’s advantages, including long-term protection and ease of administration, and the equivalent efficacy of vaccine to IG.

- **For persons over 40 years, immunocompromised persons (including infected with HIV), those with chronic liver disease, and persons with chronic liver disease:** consider giving IG in addition to a dose of vaccine.

Completion of the hepatitis A vaccine series according to the licensed schedule is necessary for long-term protection against hepatitis A.

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1Centers for Disease Control and Prevention. Update: Recommendations of the Advisory Committee on Immunization Practices for Use of Hepatitis A Vaccine for Postexposure Prophylaxis and for Preexposure Prophylaxis for International Travel. November 2, 2018 / 67(43);1216–1220. [https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm](https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm)

Summary available at: [https://www.cdc.gov/hepatitis/hav/havfaq.htm#protection](https://www.cdc.gov/hepatitis/hav/havfaq.htm#protection)


3*Notes from the Field:* Acute Hepatitis A Virus Infection Among Previously Vaccinated Persons with HIV Infection — Tennessee, 2018. [https://www.cdc.gov/mmwr/volumes/68/ww/mm6814a3.htm?s_cid=mm6814a3_w](https://www.cdc.gov/mmwr/volumes/68/ww/mm6814a3.htm?s_cid=mm6814a3_w)
D. Infection Control Recommendations/Case Management

1. Hospitalized patients should be treated using standard precautions. In addition, contact precautions should be used for diapered or incontinent persons. These contact precautions should be maintained in infants and children less than 3 years of age for the duration of the hospitalization; for children 3–14 years of age for 2 weeks after onset of symptoms; and for persons over 14 years of age for 1 week after the onset of symptoms.

2. The case should be educated regarding effective hand washing, particularly after using the toilet, changing diapers, and before preparing or eating food. All persons exposed to the case or the same source as the case should be educated about symptoms of hepatitis A infection in both children and adults, and methods to prevent transmission. They should be informed that persons may be infectious without being ill and that vaccine or IG prophylaxis may not always prevent infection.

3. Hepatitis B vaccination should be recommended for any susceptible person at ongoing risk for exposure to hepatitis B (e.g., reports illicit drug use or multiple sexual partners).

4. School restrictions: Children should not attend school if they have diarrhea.

5. Work and Child Care Restrictions: Persons should not work as food handlers, child care or healthcare workers, or attend child care during while infectious (until diarrhea has resolved and 7 days have passed since onset of jaundice). Restrictions can be modified or lifted at the discretion of the local health jurisdiction. See Section 6 for further guidance on management of food workers and child care attendees infected with hepatitis A virus.

E. Environmental Evaluation

No evaluation, unless a commercial food or food service facility, child care center, or public water supply appears to be implicated as the source of infection.

1. Commercial food or food service facility (see Section 6: Managing Special Situations)

2. Child care facility (see Section 6: Managing Special Situations)

3. Water supply: If a contaminated public or private water supply is implicated as the source of infection, contact local or state environmental health personnel for assistance.

4. Sewage disposal: If the case’s home is served by a failing sewage system, contact local or state environmental health personnel to prevent exposure of others to the sewage effluent.


6. MANAGING SPECIAL SITUATIONS

A. Possible Foodborne or Waterborne Outbreaks

Call Office of Communicable Disease Epidemiology immediately if you suspect a common-source outbreak (206-418-5500 or 877-539-4344).

B. Management of Hepatitis A in a Food Handler

If acute hepatitis A is diagnosed in a food handler (including paid and unpaid work), the following actions should be taken:

1. Exclude the case patient from the food service facility until diarrhea has resolved \textit{and} one week has passed after the onset of jaundice.
2. A food employee must report to the person in charge if they have a notifiable condition: [https://app.leg.wa.gov/wac/default.aspx?cite=246-215-02205](https://app.leg.wa.gov/wac/default.aspx?cite=246-215-02205). Working with the facility manager or owner, evaluate all food handlers at the facility for current or recent hepatitis.

3. Administer hepatitis A vaccine or immune globulin (IG) prophylaxis to all susceptible food handlers at that facility (see Section 5C).

4. Ask the facility manager or other designee to monitor all food handlers at risk for hepatitis A infection for one full incubation period (50 days) after the last exposure to the index case even if vaccine or IG was administered.

5. Consider a public announcement for post-exposure hepatitis A vaccination or IG prophylaxis for patrons of a food service facility if:
   - The food handler directly handled food served uncooked or food after it was cooked during the person’s infectious period, AND
   - The food handler had diarrhea or poor hygiene practices, AND
   - Post-exposure prophylaxis can be given to patrons within two weeks of last exposure

6. Educate the manager regarding the epidemiology of hepatitis A infection and the importance of hand hygiene and avoiding bare hand contact with uncooked food.

C. Management of Hepatitis A in a Child Care Setting

Because most hepatitis A virus infections in young children are asymptomatic, illness among adult staff members or household contacts is often the first (and only) indication of an outbreak in a child care facility.

1. Interview the operator and inspect the written attendance records to identify other possible cases among staff or attendees during the previous month. Note: [WAC 110-300A-3030](https://app.leg.wa.gov/wac/default.aspx?cite=110-300A-3030) specifies that a child care facility operator keep a routine log of illnesses.

2. Review food handling, hand washing techniques, and diaper changing practices with the operator and staff. Personal hygiene (especially handwashing for staff and children) and proper hygiene while changing diapers should be reviewed with child care staff.

3. If other cases are suspected, refer those currently ill to a health care provider for assessment.

4. Exclude persons with hepatitis A infection from child care facilities until diarrhea has resolved and one week has passed after the onset of jaundice.

5. Parents of children in the same child care group as a hepatitis A case should be notified of the occurrence of hepatitis A in the group. Facility operators are required to notify these parents that their child was exposed to a communicable disease through a letter or posted notification ([WAC 110-300A-3030](https://app.leg.wa.gov/wac/default.aspx?cite=110-300A-3030)). Hepatitis A is often asymptomatic in young children, but the local health jurisdiction (LHJ) may use this notification to ask parents about consistent symptoms (especially diarrhea) in their children and instruct the child care facility to include in the notification that the parents should:
   - Monitor children carefully for signs of hepatitis A infection such as diarrhea.
   - Seek medical care if such symptoms occur and inform the provider of the occurrence
of hepatitis A in the facility.

- Notify the child care facility operator or LHJ should symptoms occur.
- Not bring symptomatic children to the child care facility nor place them in another group of children.
- Know about the illness and how transmission can be prevented

6. If more than one case is suspected among attendees or workers, inspect the facility.

7. Instruct the facility operator to call the LHJ immediately if new cases of diarrhea occur.

8. LHJs should follow up with the facility to ensure that surveillance and appropriate prevention measures are done. Manage newly symptomatic children as outlined above.

9. Closure of the facility should be considered if it has been shown that transmission is occurring within the facility and if exclusion and sanitation controls are not adequate to stop ongoing transmission. Before closing a facility, the LHJ should assess the potential for spread to other child care settings in the community by dispersal of the children. Parents should be cautioned regarding placing their children in other child care groups, since asymptomatic shedding of the organism may occur.

10. Post-exposure prophylaxis

- Administer single antigen hepatitis A vaccine or IG (see Section 7B for dosing) to all susceptible staff and attendees in the following situations:
  - Acute hepatitis A occurs in >1 attendee or staff OR
  - Acute hepatitis A occurs in >2 households of attendees at a child care facility
- If the center does not provide care to diapered children, post-exposure prophylaxis needs to be recommended only to contacts in the same classroom as the case.
- If acute hepatitis A occurs in >3 families at any child care facility, post-exposure prophylaxis should also be considered for household members of children in diapers who attends the facility.

11. To identify new infections quickly, the local health jurisdiction should begin surveillance for hepatitis-like illness among households connected to the facility for 50 days after onset of the last case.

7. ROUTINE PREVENTION

A. Immunization Recommendations

The hepatitis A vaccines currently licensed in the United States include single antigen vaccines Havrix® and Vaqta®, and the combination vaccine Twinrix® which contains both hepatitis A and hepatitis B viral antigens. Havrix and Vaqta are licensed for persons 12 months of age or older and are given as a two dose series separated by 6–12 months and 6–18 months respectively. Twinrix is licensed for persons 18 years and older and is given as a three dose series at 0, 1, and 6 months; use Twinrix only for pre-exposure prophylaxis and only if the three dose series is likely to be completed in a timely manner.

Routine vaccination with hepatitis A vaccine is recommended for the following groups:
• All children between their first and second birthdays (12 through 23 months of age).

• Anyone 1 year of age and older traveling to or working in countries with high or intermediate prevalence of hepatitis A, such as those in Central or South America, Mexico, Asia (except Japan), Africa, and eastern Europe (for specific recommendations see: www.cdc.gov/travel). Vaccinate at least a month before travel, if possible giving two single antigen doses over six months. In addition to vaccine consider giving IG (see below) if insufficient time until travel, immunosuppressed, age ≥ 40 years, chronic liver disease, or increased risk of infection or severe disease.

• Children and adolescents 2 through 18 years of age who live in states or communities where routine vaccination has been implemented because of high disease incidence.

• Men who have sex with men.

• People who use street drugs.

• People with chronic liver disease, particularly chronic hepatitis B or C infection.

• People who are treated with clotting factor concentrates.

• People who work with HAV-infected primates or in hepatitis A research laboratories.

• Members of households planning to adopt a child and persons who will care for a newly arriving adopted child, from a country where hepatitis A is common.

• People experiencing homelessness; encourage healthcare providers serving the population to offer hepatitis A or double antigen (A, B) vaccine routinely, single antigen vaccine during an outbreak for pre- or post-exposure prophylaxis.

Other people might get hepatitis A vaccine in certain situations:

• Unvaccinated children or adolescents present in communities where outbreaks of hepatitis A are occurring.

• Unvaccinated people who have been exposed to hepatitis A virus.

• Anyone 1 year of age or older who wants protection from hepatitis A.

• Infants 6-11 months prior to international travel (but should also receive 2 vaccine doses after age 12 months)

For more information, see:


Centers for Disease Control and Prevention. Updated Recommendations from the Advisory Committee on Immunization Practices (ACIP) for Use of Hepatitis A Vaccine in Close Contacts of Newly Arriving International Adoptees. MMWR 2009;1006-7 https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5836a4.htm

VIS: https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hep-a.html
B. Prophylaxis with Immune Globulin (IG)

IG pre-exposure prophylaxis for travel to high or intermediate hepatitis A endemicity is appropriate for:

- Children < 12 months and persons for whom vaccine is contraindicated (e.g., allergic)
- Unvaccinated people with travel beginning in ≤ 2 weeks; for those who are eligible also administer hepatitis A vaccine at a separate anatomic site
- Older adults, immunocompromised persons, and persons with chronic liver disease or other chronic medical conditions receiving hepatitis A vaccine may receive IG simultaneously at a separate anatomic injection site

IG post-exposure prophylaxis is appropriate for contacts of hepatitis A cases who are:

- Household members or in the same living setting (e.g., shelter)
- Sexual contacts
- In institutional settings

Due to concerns about decreased potency of IG to protect against hepatitis A, in September 2017 CDC updated dosing recommendations for hepatitis A prophylaxis.

Note that MMR and varicella vaccines, which are live virus vaccines, should be administered at least 2 weeks before or at least 3 months after administering of IG.

**Pre-exposure** IG dosing depends on duration of travel:

- Up to one months of travel: 0.1 mL/kg
- Up to two months of travel: 0.2 mL/kg
- Over two months of travel: 0.2 mL/kg repeated every 2 months

If a child receives IG for travel, initiate a hepatitis A vaccine series when the child reaches the appropriate age.

**Post-exposure** IG dosing is 0.1 mL/kg with no maximum dose.

For more information, see:

[https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm?s_cid=mm6636a5_e](https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm?s_cid=mm6636a5_e)

C. General Prevention Recommendations

In addition to routine vaccination and post-exposure prophylaxis for hepatitis A, all persons should always wash hands after using the bathroom or changing a diaper, and before preparing or eating food. Persons with diarrhea should not prepare food for others.

**ACKNOWLEDGEMENTS**

This document is a revision of the Washington State Guidelines for Notifiable Condition Reporting and Surveillance published in 2002 which were originally based on the Control of Communicable Diseases Manual (CCDM), 17th Edition; James Chin, Ed. APHA 2000. We would like to acknowledge the Oregon Department of Human Services for developing the format and select content of this document.


**UPDATES**

Minor revisions in October 2009 with updated recommendation for hepatitis A vaccination related to adoption.

January 2011: The Legal Reporting Requirements section has been revised to reflect the 2011 Notifiable Conditions Rule revision. Case definition updated to specify ALT level.

November 2011: Updated Immunization Recommendations under Routine Prevention

February 2012: In Section 3 Case definition updated to no longer has a specified ALT level

February 2014: Controlling Further Spread section combined with Routine Case Investigation section.

April 2016: Front page added

October 2017: Added section 7B for updated prophylaxis with IG

March 2018: Update for WDRS and national outbreaks

December 2018: Post-exposure prophylaxis use of vaccine expanded to all ages > 12 months; routine vaccination recommended for persons experiencing homelessness; double antigen vaccine (A,B) recommended as appropriate.

January 2019: a) bilirubin level ≥ 3.0 or jaundice, b) ALT ≥ 200, absence of more likely diagnosis, PCR as confirming laboratory test; post-exposure prophylaxis use of vaccine expanded to all ages > 12 months; expanded pre-travel recommendations, routine vaccination recommended for persons experiencing homelessness; double antigen vaccine (A,B) recommended as appropriate.

June 2019: Single antigen vaccine should be used for pre-exposure or post-exposure prophylaxis during an outbreak.
APPENDIX: SAMPLE PRESS RELEASE AND COMMENTS

Target the announcement as specifically as possible. Itemize implicated foods, dates and times served, etc. Keep in mind that foods prepared by a certain worker are not necessarily served during the worker’s shift hours. Local health jurisdictions may decide that there is no reason to run your own prophylaxis clinic. Find out if the restaurant plans to pay for prophylaxis up front. If they are, say so in the announcement. Alert exposed people who are too late for prophylaxis to signs and symptoms of hepatitis. Encourage them to seek medical attention promptly should illness develop. This kind of alert does not indicate that a hepatitis outbreak has occurred. It indicates the health department is taking action to prevent one. Make sure the difference is clear. Provide “boilerplate” background information about hepatitis A last. For text copies of the alert contact Office of Communicable Disease Epidemiology (206 418-5500) or 877-539-4344).

Alert Version 1: (Name) County Announces Hepatitis A Alert

The (Name) County Health Department announced today that recent patrons of the (Name) Restaurant, (address) in (City), may have been exposed to hepatitis A. "On July 3 (change date), a case of hepatitis A in a restaurant worker was reported to the Health Department," said (Admin name), Madison County Health Department Administrator.

“To prevent illness, persons who have not been vaccinated against hepatitis A and ate at the salad bar or had any sandwich with lettuce between 11 a.m. and 4 p.m. (change time) on June 24, 26, 29, 30 (change date), or July 1 (change date) should get an injection of immune globulin or hepatitis A vaccine as soon as possible, but not more than two weeks after their exposure,” said (Admin name). Your health care provider or the (Name) County Health Department can determine which preventive measure is best for you. Immune globulin and hepatitis A vaccine are available from most health care provider offices, emergency rooms, and urgent care clinics, but you should call ahead to ensure availability. Immune globulin and hepatitis A vaccine will also be given at the (Name) County Health Department, (address), on Wednesday and Thursday, July 5 and 6 (change date), from 3-7 p.m. (change time). No appointment is necessary. A donation of ($##) is requested, but no one will be refused immunization because of inability to pay.

Persons who ate foods suspected to carry risk on June 19 or 20 (change date) may also have been exposed, but it is now too late for immune globulin or hepatitis A vaccine to prevent illness. If you ate at the restaurant and develop symptoms of hepatitis A (see below), contact your physician.

The purpose of this alert is preventive; no cases resulting from exposure at the restaurant have been reported. The restaurant has been inspected and is believed to be safe at the present time. This alert concerns the (address or city) restaurant only—not other restaurants in the (Name) chain.

Hepatitis A is a viral disease of the liver. It is spread from person to person by the “fecal-oral” route, often by inadequate handwashing after using the toilet or changing diapers. Typical symptoms of hepatitis A include fatigue, fever, malaise, loss of appetite, abdominal pain, nausea, vomiting, and jaundice (yellowing of the skin or eyes). Symptoms usually develop 2–6 weeks after exposure. Some infections may be very mild or even asymptomatic.
Alert Version 2: HEPATITIS A ALERT, (DATE)

COMMUNICABLE DISEASE CONTACT
FOR THE PUBLIC: XXX-XXXX
FOR MORE INFORMATION
Call: (name) XXX-XXXX

The (Name) County Department of Health has confirmed hepatitis A in a foodhandler working at the (Name) Restaurant, located at (address) in (City). The foodhandler worked during a period in which hepatitis A infection could have been transmitted through food. The Department of Health makes the following recommendations for persons who ate food at the restaurant:

1. Persons who ate any (list risk food items) on (dates within 14 days) should receive prophylaxis.

2. Persons eating these items before (date over 14 days ago) may have been exposed, but it is too late for prophylaxis to be effective. Such persons should consult with the Department of Health for information about hepatitis A symptoms and ways to prevent transmission or see information provided below.

3. Persons having ONLY (list safe food items) do NOT need to receive immune globulin or vaccine.

Any person who received immune globulin within the past three months, ever received hepatitis A vaccine, or ever had laboratory confirmed hepatitis A infection does not need prophylaxis.

Prophylaxis shots can be obtained from personal health care providers or for $xx charge from (Name) County Department of Health clinics. IF TRUE: (Name) Restaurant has agreed to pay for shots received at Department of Health clinics.

Prophylaxis must be received no later than 14 days after exposure to be effective in preventing illness. For example, someone who ate on (date) should receive prophylaxis no later than today, (date). Persons eating the implicated foods more than two weeks ago should watch for the following:

Symptoms of hepatitis A: nausea, loss of appetite, vomiting, fatigue, fever, abdominal cramps, dark-colored urine, light or whitish-colored stools, and jaundice (a yellow color to the eyes or skin).

Incubation period: two to six weeks from exposure to symptoms.

Transmission: hepatitis A virus is passed in the stools (not saliva or other body fluids). The virus infects another person when it is eaten.

Prevention: Thorough handwashing with soap and hot water after using the toilet and before handling food is the most important factor in preventing spread. Prophylaxis shots are highly effective if received within 14 days of exposure.

Persons suspecting that they have symptoms of hepatitis should contact their health care provider. Persons working as foodhandlers who experience symptoms of hepatitis should not work, and should be seen by a health care provider. Persons with questions should contact their personal health care provider or the (Name) Department of Health at XXX-XXXX.