

Hepatitis B

Overview

- Anyone with a positive hepatitis B surface antigen (HBsAg) needs ongoing monitoring and needs to be considered for treatment. A healthy carrier does not exist.
- Infection causes acute hepatitis, which may progress to chronic infection.
- Chronic hepatitis B infection (HBsAg positive) can cause hepatocellular carcinoma even in the absence of liver cirrhosis.
- Transmission occurs from mother to child (vertical), via parenteral exposure (shared injection equipment), or through sexual or household contact (horizontal).
- The risk of developing chronic hepatitis B is > 90% if infection acquired at birth or < 5 years and < 5% if infection acquired as an adult.
- In Australia, routine adolescent immunisation commenced in 1997 and universal infant vaccination commenced in May 2000. Therefore those who were 34 years old or younger in 2020 and who grew up in Australia can generally be assumed to have been vaccinated and do not need testing. However, for certain high-risk population groups it may still be warranted to check their hepatitis B serology (e.g. people with HIV, or people who inject drugs).
- Elevated prevalence among [Aboriginal and Torres Strait Islander people](#) living in remote areas **and** among [some culturally and linguistically diverse populations](#).
- Most people living with chronic hepatitis B in Australia were born overseas, particularly in the Asia Pacific region, Europe, Africa and the Middle East.

More information on priority populations for hepatitis B virus (HBV) testing is found at the [ASHM Hepatitis B Testing Portal](#).

Cause

- HBV, a double-stranded DNA virus.

Clinical presentation

Symptoms

- Asymptomatic infection: common
- Acute hepatitis: right upper quadrant pain, lethargy, nausea, fever, anorexia for a few days then jaundice. Incubation 45-180 days (mean: 60 days)
- Chronic hepatitis: infection lasting over 6 months, can be life-long

Complications

- Liver cirrhosis and liver failure
- Hepatocellular carcinoma

Diagnosis

For assistance with the ordering and interpreting hepatitis B serology please follow the [ASHM Decision making tool for hepatitis B](#)

Management

For management of Hepatitis B please follow the [ASHM Decision making tool for hepatitis B](#)

Other immediate management

- Advise no sexual contact during acute illness unless partner is immune.
- Commence contact tracing.
- Consider testing sexual contacts, household contacts and close family members and vaccinate if not immune.
- Provide the patient with a [factsheet](#).

- Notify the state or territory health department.
- Consider [comprehensive STI testing](#), depending on the patient's sexual history.

Special Treatment Situations

Special considerations

- Consider seeking specialist advice before treating any complicated presentation.

Situation	Recommended
People who use HIV pre-exposure prophylaxis (PrEP)	People living with hepatitis B can use PrEP if they are at risk of human immunodeficiency virus (HIV), but must use the daily method rather than the on-demand method of PrEP. See PrEP guideline for details.
People who need HIV post-exposure prophylaxis (PEP)	Seek immediate specialist advice if a person who is living with hepatitis B needs HIV PEP, as some PEP medications also treat HBV.

Situation	Recommended
Pregnancy	Needs specialist review. Infant needs hepatitis B vaccination and immunoglobulin (HBIG) at birth; the pregnant person may need antiviral therapy to reduce transmission at birth. People who have given birth may be at risk of hepatitis B flares in the post-natal period. For further information see Management of hepatitis B in pregnancy.

Contact Tracing

- Notifiable condition.
- Contact tracing is important to prevent re-infection and reduce transmission.
- For acute hepatitis B: trace back **6 months** before onset of symptoms.
- Most people diagnosed with hepatitis B in Australia will have acquired hepatitis B at birth, and hence contact tracing will need to be conducted differently than for acute hepatitis B. See [Australian contact tracing guidelines](#).
- Infectious for **2 weeks** before onset of symptoms and until the patient becomes HBsAg negative; life long if chronic infection.
- Test sexual and household contacts and family members, offer vaccination if susceptible, further assessment for those with current infection. Note that HBV is a blood borne virus and sexually transmissible infection, and hence casual household contact (e.g. sharing cutlery) is not a risk for transmission of hepatitis B.
- Hepatitis B immunoglobulin (HBIG) can be given as post-exposure prophylaxis in certain high-risk situations (e.g. sexual, injecting or occupational exposure) or as a birth dose to reduce transmission risk from an HBsAg-positive person to their child.

See [Australasian Contract Tracing guidelines – Hepatitis B](#) for more information.

Follow Up

- Confirm contact tracing has been undertaken or offer more contact tracing support.
- Acute infection should be monitored until HBsAg negative.
- Chronic infection requires life-long follow-up, including **6-12 monthly** hepatitis B monitoring, yearly hepatitis B DNA viral load, liver function testing and antiviral therapy if indicated.
- Certain [populations with chronic hepatitis B](#) require **6-monthly** hepatocellular carcinoma screening (abdominal ultrasound and alpha-fetoprotein).
- Check [hepatitis A](#) status and vaccinate if susceptible.
- Check [hepatitis C](#) status, and discuss with a hepatologist if [hepatitis C](#) positive.
- Patients with chronic hepatitis B should be assessed for other causes of hepatitis (e.g. alcohol, fatty liver), and should be counselled to reduce these factors if relevant (e.g. reduced alcohol intake).
- Check hepatitis D status in patients diagnosed with hepatitis B who were born in hepatitis D virus (HDV) endemic regions (including Mongolia, Moldova, West and Central Africa).

Retesting

Prior infection provides life-long immunity to re-infection. Patients with resolved infection may experience a hepatitis B flare if immunocompromised (e.g. if receiving chemotherapy).

Auditable Outcomes

- 100% of patients with chronic hepatitis B infection have annual reviews.
- 100% of sexual, household and family contacts are tested and vaccinated if susceptible.

Resources

- [ASHM Decision making tool for hepatitis B](#)
- [B Positive: All You Wanted To Know About Hepatitis B – A Guide For Primary Care Providers](#)