



Hepatitis B vaccination

Who needs it, the schedule, and checking that it has worked

PE-GIC-36

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The hepatitis B vaccine is safe and very effective at preventing a liver infection that can be lifelong. All babies in Oman are vaccinated, but many adults were born before this or never completed the course. Adults at higher risk, or about to start treatment that weakens the immune system, should be checked and vaccinated if they are not already protected.

Why vaccinate?

Hepatitis B is a virus that infects the liver. It spreads through blood, sexual contact, and from mother to baby around birth. Chronic infection can lead to cirrhosis and liver cancer. The vaccine protects more than 9 in 10 healthy young adults who complete the course, usually for decades. The response is lower with older age, smoking, obesity, diabetes, kidney disease and a weakened immune system.

In Oman, the vaccine has been part of the childhood schedule since 1990, starting at birth. Adults born earlier, or who missed doses, may not be protected.

Who should be vaccinated?

International guidance recommends vaccination for adults who are not already immune, particularly:

- Before medicines that weaken the immune system, such as biologics, steroids, azathioprine or chemotherapy, including for inflammatory bowel disease; ideally at diagnosis
- People with chronic liver disease, such as fatty liver disease, hepatitis C or cirrhosis
- Household members of someone with hepatitis B, and their husband or wife, or any other sexual partner
- Healthcare workers and others exposed to blood at work
- People on dialysis or with advanced kidney disease, ideally before dialysis starts

- People with diabetes, especially those under 60; over 60, your doctor will discuss it with you
- People with HIV, or at risk through sexual contact or shared needles

The World Health Organization recommends hepatitis B vaccination for all babies, and for adults at higher risk who are not already protected. Your doctor will advise whether you need it.

A blood test first

If you may have been exposed, or are about to start immune-suppressing treatment, a blood test (HBsAg, anti-HBc and anti-HBs) is usually done first. It shows whether you are already immune, had the infection in the past, or carry the virus now, which needs a different plan. The test should not delay vaccination: the first dose can be given the same day.

The vaccine schedule

- Standard vaccines: three injections into the upper arm muscle, at 0, 1 and 6 months
- A two-dose vaccine for adults (Heplisav-B), 1 month apart, where available. It may protect better in people with diabetes or kidney disease not yet on dialysis
- A faster schedule (0, 1, 2 and 12 months) when protection is needed quickly
- People on dialysis or with a weakened immune system may be given higher or extra doses

If you miss a dose, you do not need to start again; continue the course from where you stopped.

Checking that it has worked

Most healthy people need no test afterwards. An antibody test (anti-HBs) 1 to 2 months after the last dose is recommended for:

- Healthcare workers
- People on dialysis or with a weakened immune system, including those on treatment for inflammatory bowel disease
- The husband or wife, or any other sexual partner, of someone with hepatitis B
- Babies born to mothers with hepatitis B, who are tested at 9 to 12 months of age

A level of 10 mIU/mL (also written 10 IU/L) or more means you are protected. Protection usually lasts even if the level later falls, so healthy people do not need boosters. People on dialysis are checked yearly and given a booster if it falls below 10.

If the vaccine has not worked

If the level is below 10, a second full course is usually given, sometimes with a higher-dose or two-dose vaccine, and the level rechecked. Many people respond. Those who still do not (non-responders) should be tested to make sure they do not already carry hepatitis B, and will be advised what to do after any exposure.

Is it safe?

- The vaccine does not contain live virus and cannot cause hepatitis B
- It is safe for people taking immune-suppressing medicines, including biologics, although the response may be lower
- Hepatitis B vaccines are safe in pregnancy and while breastfeeding. Tell the nurse if you are pregnant so that a suitable vaccine is chosen
- Side effects are usually mild: a sore arm, mild fever or tiredness for a day or two
- Severe allergic reactions are very rare. Tell the nurse if you reacted badly to a previous dose or are allergic to yeast

Get urgent medical care if you have

- Difficulty breathing, swelling of the face, lips or throat, or a widespread rash soon after vaccination: call emergency services
- If you are not immune and have had a needle-stick injury, or blood or sexual contact with someone with hepatitis B: seek advice the same day; treatment works best within 24 hours, but can still help if given within the first week or two
- Yellow eyes or skin, or very dark urine

Common questions

I was vaccinated as a child. Am I protected?

Most people vaccinated in infancy remain protected, even if their antibody level is now low. A test or booster is usually needed only in higher-risk groups, such as healthcare workers or before immune-suppressing treatment.

My husband or wife has hepatitis B. What should I do?

Have a blood test and, if you are not immune, complete the vaccine course, with a blood test afterwards to confirm protection. Until then, use condoms. Children and others in the household should also be checked.

Can I have it at the same time as other vaccines?

Yes. It can be given at the same visit as other vaccines, such as the flu, pneumonia or shingles vaccines.

Do I need the vaccine if I already have hepatitis B, or had it in the past?

Usually not. If you carry the virus or have already cleared it, the vaccine gives no benefit. If your test shows only one sign of past infection, your doctor may still suggest the vaccine. This is one reason a blood test is often done first.

This leaflet is general information and does not replace advice from your own doctor. Version 1.0, October 2026. Next review October 2028.

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