PROCEDURE

hepatitis A vaccine (inactivated) strain HM175

An injection containing inactivated hepatitis A virus that helps prevent hepatitis A infection.

PURPOSE
Prevent hepatitis A infection and its complications

PROCEDURE TYPE
Therapeutic (preventive) - bedside intramuscular injection

WHERE IT IS DONE
Outpatient clinic

ANAESTHESIA
None

HOW LONG IT TAKES
A few seconds to one minute

PREPARATION
No fasting; bring vaccination records and allergy details

RECOVERY
Same day; driving allowed if you feel well

MAIN RISKS
Soreness, headache, fainting, severe allergic reaction

RESULTS
No routine test; protection begins within weeks

Overview

The hepatitis A vaccine containing inactivated strain HM175 is an injection used to prevent hepatitis A. Hepatitis A is a viral infection that affects the liver and spreads mainly through contaminated food, water, or close personal contact.

"Inactivated" means the virus in the vaccine has been killed. It cannot reproduce or give you hepatitis A. The vaccine trains your immune system to recognize the virus and respond if you are exposed later.

HM175 is the laboratory strain used in certain hepatitis A vaccines, including some single hepatitis A vaccines and combination hepatitis A and B vaccines. Products, strengths, and schedules differ by age and country.

The vaccine is usually injected into a muscle. A series includes more than one dose because the later dose strengthens and extends protection.

Why the procedure is performed

Vaccination may be offered as part of routine childhood immunization, because you have a greater chance of exposure, or because hepatitis A could have more serious effects on your health.

Reasons may include:

The vaccine may also be used after a recent exposure. Timing matters in that situation, so contact a healthcare service promptly. Some people may also need hepatitis A immune globulin, which contains ready-made antibodies and provides temporary protection.

- Travel to or residence in a place where hepatitis A is common
- Close contact with someone who has hepatitis A
- Chronic liver disease, including hepatitis B or hepatitis C
- HIV infection
- Use of recreational drugs
- Sexual contact between men
- Work involving possible exposure to hepatitis A virus
- Living in an area or community affected by an outbreak
- Wanting protection even without a specific risk factor

Who should and should not have it

The vaccine is licensed for people from a minimum age set by the specific product. For the HM175-containing single hepatitis A vaccine used in the United States, vaccination can begin at 12 months of age.

You should not receive another dose if you had a severe allergic reaction, such as anaphylaxis, after an earlier dose or to a vaccine component. Tell the vaccination team about serious allergies, including a known severe allergy to neomycin, which may remain in trace amounts from manufacturing.

Vaccination may be delayed if you have a moderate or severe illness, especially with fever. A

mild cold or minor illness does not usually require a delay.

Tell the team before vaccination if you:

Do not stop a blood thinner like warfarin or apixaban on your own. The team can use injection and pressure techniques that reduce bruising.

Because this is an inactivated vaccine, it cannot cause hepatitis A and is not generally avoided solely because of pregnancy, breastfeeding, or a weakened immune system. The expected benefit and your exposure risk should still be considered. People with weakened immunity may have a less reliable response.

- Have a bleeding disorder or take medicine that affects clotting
- Have previously fainted during injections
- Have a weakened immune system
- Are pregnant or breastfeeding
- Recently received immune globulin or another vaccine

How to prepare

Follow the treating facility's own instructions first, because its instructions take priority over general information.

You do not usually need to fast. Eat and drink normally unless you have been told otherwise for another procedure.

Bring your vaccination record if available. Tell the team about previous vaccine reactions, allergies, current illnesses, pregnancy, medicines that affect clotting, and any condition that weakens your immune system.

Wear clothing that allows easy access to your upper arm. For a young child, the injection may be given in the outer thigh.

If you tend to faint with needles, tell the person giving the vaccine. You can receive it while seated or lying down.

What happens during the procedure

The vaccination team checks your identity, vaccination history, allergies, and whether the product is suitable for your age. They may ask whether the vaccine is being given routinely, before travel, or after an exposure.

The skin is cleaned if needed. The vaccine is injected into a muscle, usually the deltoid muscle of the upper arm. In infants and young children, the outer thigh is commonly used. It is not injected into a vein.

The injection itself takes only a few seconds. You may feel a brief sharp sensation or pressure.

You will usually be asked to remain seated nearby for about 15 minutes. This allows the team to help if you feel faint or have an immediate reaction.

Recovery and what to expect afterward

Pain: Your arm may feel sore, tender, or heavy. Mild redness or swelling can occur around the injection site. Moving the arm gently may help. Follow the facility's advice if you need pain relief.

Eating: You can eat and drink normally after vaccination. Nausea or reduced appetite can occur, but these effects are usually short-lived.

Activity: Most people can continue their normal activities the same day. If you feel tired, feverish, or light-headed, rest until you feel better. Avoid strenuous activity if it makes your symptoms worse.

Driving: The vaccine itself does not require a driving restriction. Do not drive if you feel faint, dizzy, or unwell after the injection.

Work or school: Most people can return immediately or the same day. You may prefer a lighter schedule if you develop headache, tiredness, or arm discomfort.

Risks and possible complications

Common short-term effects include pain, redness, or swelling where the injection was given. Headache, tiredness, mild fever, nausea, or reduced appetite may also occur.

Fainting can happen around injections, particularly in adolescents. The main risk is injury from falling, which is why you may be asked to remain seated afterward.

A severe allergic reaction is possible after any vaccine, but it is uncommon. Vaccination sites keep equipment and medicines available to treat it.

Other possible problems include a large local reaction or significant bruising, especially if you have a bleeding disorder or take blood-thinning medicine. Incorrect injection technique can occasionally cause prolonged shoulder pain.

The vaccine cannot cause hepatitis A because it contains inactivated virus.

Results and follow up

There is no immediate test result. Your immune system begins producing antibodies after vaccination, with protection developing over the following weeks.

A later dose is needed to strengthen and prolong protection. The exact schedule is based on your age, the vaccine product, and whether you receive a single hepatitis A vaccine or a combination vaccine. Follow the dates provided by the vaccination service.

If a later dose is overdue, the series usually does not need to be restarted. Arrange the missed dose and let the team confirm the appropriate timing.

Routine blood testing to prove immunity is not needed for most people. Testing may be considered when knowing whether you responded would change future care, such as in some people with significantly weakened immunity.

Vaccination does not treat an infection that is already established. If you become unwell after a known exposure, seek medical advice even if you have received a dose.

Alternatives

Other licensed inactivated hepatitis A vaccines can provide similar protection. They may use a different virus strain, formulation, or schedule. Availability depends on your age and location.

A combination hepatitis A and B vaccine protects against both infections. It can reduce the number of separate injections, but it follows its own schedule and is not suitable for every age group or situation.

Hepatitis A immune globulin provides ready-made antibodies. It works more quickly but offers only temporary protection. It may be used instead of, or alongside, vaccine after exposure or before imminent travel for selected people.

Careful handwashing, safe drinking water, and avoiding potentially contaminated food reduce exposure. These measures do not provide the dependable, longer-term protection of vaccination.

Choosing not to be vaccinated avoids injection-related effects but leaves you without vaccine-induced protection. Your personal exposure risk, health, travel plans, and preferences should be part of the decision.

When to call your healthcare team

Contact the vaccination service routinely if you need to reschedule a later dose, are unsure which vaccine you received, or have questions about completing the series.

Seek prompt medical advice if redness, swelling, or pain is worsening rather than improving, or if you have a persistent fever or other symptoms that concern you. After a recent hepatitis A exposure, contact a healthcare service promptly because preventive treatment is time-sensitive.

Call emergency services for possible signs of a severe allergic reaction, including:

- Trouble breathing or wheezing
- Swelling of the face, lips, tongue, or throat
- Widespread hives with weakness or dizziness
- Collapse or loss of consciousness

Common questions

Will I be asleep for the vaccine?

No. Anaesthesia and sedation are not needed. You remain awake, and the injection takes only a few seconds.

Can I drive myself home?

Usually, yes. Wait until any light-headedness has passed. Do not drive if you feel faint, dizzy, or otherwise unwell.

How painful is it?

Most people feel a brief sting or pressure. Arm soreness can continue for a short time afterward, but it should gradually improve.

When will I know it worked?

There is usually no routine blood test. Protection begins developing within weeks, and the later dose strengthens longer-term protection.

Can the vaccine give me hepatitis A?

No. The HM175 virus in the vaccine is inactivated and cannot reproduce or cause hepatitis A.

What if I miss my next dose?

Arrange it when you can. A delayed series usually continues from where it stopped rather than starting again.

Sources

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- World Health Organization. Hepatitis A vaccines: WHO position paper . Weekly Epidemiological Record. 2022;97:493-512.