PROCEDURE

Vaccinations

Vaccination gives a vaccine to help your immune system prevent specific infections or serious illness.

PURPOSE
Build protection against specific infections and their complications

PROCEDURE TYPE
Therapeutic; minimally invasive injection, oral dose, or nasal spray

WHERE IT IS DONE
Clinic, pharmacy, school, community site, or bedside

ANAESTHESIA
None

HOW LONG IT TAKES
Seconds to a few minutes per vaccine

PREPARATION
Bring records; discuss allergies, pregnancy, illness, and immune conditions

RECOVERY
Same day; avoid driving if faint or dizzy

MAIN RISKS
Soreness, fever, fainting, and severe allergic reaction

RESULTS
Immune protection develops over days to weeks

Overview

Vaccination is the process of giving a vaccine to train your immune system. Your immune system learns to recognize a specific germ, such as a virus or bacterium, and respond more quickly if you meet it later.

Vaccines may contain weakened or inactive germs, harmless parts of germs, genetic instructions, or an inactivated toxin. They cannot all be handled in the same way, so advice about timing, pregnancy, allergies, and immune conditions is specific to each vaccine.

Most vaccines are injected into a muscle, usually in the upper arm or thigh. Some are given by mouth, under the skin, into the skin, or as a nasal spray. You may need one dose, a series of doses, or later booster doses to maintain protection.

Vaccination greatly lowers the risk of many infections and their serious complications. It does not guarantee that you will never become infected.

Why the procedure is performed

Vaccines are mainly given to prevent infection or reduce how seriously an infection affects you. Some are routinely offered according to age. Others are recommended because of pregnancy, work, travel, medical conditions, previous vaccinations, or possible exposure to an infection.

A healthcare professional may offer vaccination to:

The vaccines suitable for you are based on your age, vaccination history, health, local disease patterns, and national recommendations.

- Complete routine childhood or adult immunisation
- Protect against infections that become more serious with age
- Reduce risks linked to pregnancy or certain health conditions
- Meet travel, education, immigration, or workplace requirements
- Provide protection after a possible exposure
- Replace protection that has weakened over time

Who should and should not have it

Most people can receive recommended vaccines, including many people with mild illnesses or stable long-term conditions. A mild cold without significant fever does not usually prevent vaccination.

A vaccine may be avoided if you had a severe allergic reaction, called anaphylaxis, after an earlier dose or to one of its ingredients. A different product may sometimes be possible after specialist assessment.

Live vaccines contain a weakened form of a germ. They are generally avoided during pregnancy and in people with severely weakened immune systems because the weakened germ could create additional risk. This does not apply to every vaccine: many non-live vaccines can be given in these situations and may be especially important.

Vaccination may be delayed if you have a moderate or severe acute illness, particularly with fever. The purpose is often to avoid confusing symptoms of the illness with vaccine reactions,

rather than because the vaccine would necessarily be unsafe.

Tell the vaccination team if you:

These issues do not always rule out vaccination. They may affect the vaccine, timing, injection method, or observation needed afterward.

- Have had a serious reaction to a vaccine
- Are pregnant, may be pregnant, or are breastfeeding
- Have a weakened immune system or take immune-suppressing medicines
- Have a bleeding disorder or take a blood thinner like warfarin or apixaban
- Recently received blood products, antibodies, or another vaccine
- Have previously fainted during injections

How to prepare

Follow the treating facility's own instructions first, as they take priority over general information here.

You can usually eat, drink, and take your regular medicines as normal. Do not stop a blood thinner or other prescribed medicine unless the clinician responsible for it tells you to.

Bring your vaccination record if you have one. Also bring information about severe allergies, earlier vaccine reactions, current medicines, and relevant medical conditions. If records are missing, the vaccination team may check an electronic registry or discuss whether repeating a dose is appropriate.

Wear clothing that allows easy access to your upper arm. Drinking normally and having a meal may help if you tend to feel faint around needles.

Before a travel vaccination appointment, bring your itinerary, departure date, planned activities, and previous travel vaccine records. Some vaccine series take weeks or months to complete, although a later appointment may still be useful.

What happens during the procedure

Before giving the vaccine, a trained professional confirms your identity, the vaccine being offered, and whether it is suitable that day. You will be asked about allergies, previous reactions, pregnancy, immune conditions, and current illness. You should have an opportunity to ask questions before agreeing.

For an injection, you will usually sit down. The skin may be exposed and cleaned according to local practice. A small needle delivers the vaccine, most often into the muscle of the upper arm. The injection itself usually takes only seconds.

Oral vaccines are swallowed. Nasal vaccines are sprayed into the nostrils. The correct route is determined by the specific vaccine and should not be changed for convenience.

Your vaccine details are recorded, including the product, date, dose, and administration site. You may be asked to remain at the facility for observation. The observation time is based on the vaccine, your allergy history, and local policy.

Recovery and what to expect afterward

Pain, tenderness, redness, or mild swelling at the injection site is common. A cool compress and gentle arm movement may help. Some vaccines can also cause tiredness, headache, muscle aches, or a mild fever for a short time.

You can usually eat and drink normally immediately afterward. Follow any vaccine-specific advice given to you.

Most people can return to normal activity the same day. If you feel unwell, choose lighter activity and rest until you feel better.

Vaccination does not normally prevent driving. Do not drive if you feel faint, dizzy, weak, or otherwise unable to control a vehicle safely. If you have a history of fainting with needles, arrange support or transport if needed.

Most people can return to work or school immediately. Taking time off may be reasonable if fever, aches, or fatigue interfere with your usual activities.

Risks and possible complications

Vaccines can cause side effects because they activate the immune system. Most are mild and settle without treatment.

Common effects include injection-site soreness, redness, swelling, fatigue, headache, muscle aches, chills, or fever. The expected effects and timing differ between vaccines.

Fainting can happen around any injection, particularly in adolescents and younger adults. Sitting or lying down for vaccination helps prevent injury from a fall.

A severe allergic reaction is uncommon but requires immediate treatment. Vaccination sites keep emergency medicines and equipment available for this reason.

Some vaccines have specific rare risks. These are not the same for every product. Your healthcare professional should explain important risks linked to the vaccine you are being offered, especially if your medical history changes the balance of benefits and harms.

Vaccines are monitored after approval because very rare problems may not become clear during clinical trials. A health event occurring after vaccination is not automatically caused by the vaccine; safety systems assess timing, medical evidence, and patterns across many reports.

Results and follow up

There is usually no immediate test result. Your immune system builds protection over days to weeks. Some vaccines require several doses before the best expected protection develops.

Keep your updated vaccination record. It may include the date a later dose is due. If you miss that date, contact the vaccination service; many vaccine series can be continued without starting again.

Blood tests to check immunity are not routinely needed after most vaccines. They may be used in selected situations, such as for certain workers, people with particular immune conditions, or after specific vaccines.

You can still develop an infection after vaccination. Seek medical advice based on your symptoms and exposure risk rather than assuming vaccination rules out infection.

Alternatives

There is no single alternative that provides the same protection as vaccination. Your options and their trade-offs include:

Screening tests can sometimes detect an infection early, but they do not prevent you from acquiring it. Ask what is likely to happen if you choose to delay or decline the specific vaccine.

- Delaying vaccination: allows more time to consider your choice, but leaves you unprotected or partly protected during the delay
- Using a different vaccine product: may help with a specific allergy or clinical concern, but an appropriate alternative is not always available
- Avoiding exposure: measures such as ventilation, hand hygiene, masks, safer sex, or avoiding contaminated food can lower selected risks, but cannot remove all exposure

- Preventive antibodies: available for only certain infections and situations; protection is usually temporary and may be difficult to access
- Relying on immunity after infection: may produce some protection, but requires getting the infection and accepting its possible complications

When to call your healthcare team

Contact your healthcare team for routine advice if side effects are not improving as expected, are getting worse, or interfere significantly with eating, drinking, sleeping, or normal activity. Also call if redness or swelling keeps spreading, or if you are concerned about a reaction not covered in your aftercare information.

Seek urgent medical advice if you develop a high or persistent fever, repeated vomiting, unusual weakness, or a widespread rash, especially after a live vaccine.

Call emergency services immediately for trouble breathing, swelling of the face or throat, collapse, a seizure, severe confusion, or rapidly developing hives with breathing or circulation symptoms. These may indicate a severe reaction requiring emergency care.

Common questions

Will I be asleep?

No. Vaccination does not usually require anaesthesia or sedation. The procedure is brief, and you remain awake.

Can I drive home?

Usually, yes. Do not drive if you feel faint, dizzy, weak, or unwell. Wait until you have fully recovered or arrange for someone else to drive.

How painful is it?

Most injections cause a quick pinch or sting. The area may feel sore afterward, usually for a short time. Tell the vaccinator if you are anxious about needles or have fainted before.

When will I know it worked?

There is usually no immediate sign or routine test. Protection develops over days to weeks and may require additional doses. No vaccine protects everyone completely.

Can I get more than one vaccine at the same visit?

Many vaccines can be given at the same appointment, usually at different injection sites. Some

live vaccines need specific spacing if they are not given together. The vaccination team will check the schedule.

Can the vaccine give me the infection?

Non-live vaccines cannot cause the infection they are designed to prevent. Live vaccines contain weakened germs and may cause mild vaccine-specific effects, but they are screened carefully for suitability.

Sources

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