PROCEDURE

# Splinter removal

Splinter removal takes an object such as wood, glass, or metal out of the skin

**PURPOSE**
Remove a foreign object and reduce pain or infection

**PROCEDURE TYPE**
Therapeutic, minimally invasive bedside procedure

**WHERE IT IS DONE**
Outpatient clinic, urgent care, or bedside

**ANAESTHESIA**
None or local anaesthetic for deeper or painful splinters

**HOW LONG IT TAKES**
About 5 to 30 minutes

**PREPARATION**
Usually none; clean and cover the area

**RECOVERY**
Same day; driving usually allowed without sedation

**MAIN RISKS**
Retained fragment, infection, bleeding, nearby tissue injury

**RESULTS**
Removal is usually confirmed immediately

## Overview

Splinter removal is a minor procedure to take a foreign object out of your skin. Common examples include pieces of wood, thorns, glass, metal, plastic, and fishhooks.

A shallow splinter may be removable at home with clean tweezers. Medical removal may be safer when the object is deep, difficult to see, very painful, broken, or close to an important structure such as an eye, joint, nerve, or blood vessel.

The clinician may use a needle, forceps, or a small cut in the skin. "Local anaesthetic" means medicine used to numb the area while you remain awake. Imaging, such as an X-ray or ultrasound, is sometimes needed to locate the object.

## Why the procedure is performed

Removal may be recommended to relieve pain and prevent the object from causing further tissue damage. It can also help treat or reduce the risk of infection.

Wood, thorns, and other plant materials often irritate tissue and are generally removed when possible. Glass and metal may also need removal if they cause pain, limit movement, lie near an important structure, or are likely to move deeper.

The procedure may also allow the clinician to clean the wound, check for injury beneath the skin, and assess whether you need tetanus vaccination or further treatment.

## Who should and should not have it

Professional removal may be appropriate if:

Immediate removal is not always the best first step. A tiny, clean, painless object may sometimes be left in place if removing it would cause more injury than observation. This is more likely with inert materials, such as some small glass or metal fragments.

Removal may be delayed until imaging identifies the object or a specialist is available. An object in the eye, deeply embedded in the face, or close to major nerves, blood vessels, tendons, or joints may require specialist treatment.

Tell the healthcare team if you take a blood thinner like warfarin or apixaban , have a bleeding disorder, have allergies to local anaesthetics or adhesives, or have previously fainted during procedures. These issues do not always prevent removal, but they can change how it is performed.

- The splinter is deep, large, broken, or difficult to grasp
- You cannot see or safely reach the object
- It is under a nail or near an eye, joint, tendon, nerve, or blood vessel
- The area is increasingly painful, red, swollen, or draining fluid
- The object came from a dirty puncture wound
- You have reduced feeling, poor circulation, diabetes, or a weakened immune system

## How to prepare

Most simple splinter removals require no fasting or special preparation. Keep the area clean and cover it with a light dressing if it is open or bleeding. Avoid repeated digging, squeezing, or

cutting because this can push the object deeper or make it harder to locate.

Do not stop a prescribed blood thinner unless your healthcare team specifically tells you to. If sedation or an operating theatre may be needed, you could receive instructions about fasting and arranging transport.

Bring information about when and how the injury happened, what the object may be, your medicines and allergies, and your tetanus vaccination history.

The treating facility's own instructions take priority because preparation may differ for deep or complex objects.

## What happens during the procedure

The clinician examines the area and checks movement, feeling, and blood flow when relevant. They may mark the entry point before cleaning your skin.

A superficial splinter may be removed with sterile forceps. For a deeper object, the clinician may numb the skin with a local anaesthetic. The injection can sting briefly.

They may use a sterile needle or make a small cut to expose the object. Magnification and bright lighting can help. If a splinter lies under a nail, a small part of the nail may need to be trimmed or lifted.

An X-ray can often show metal and many types of glass, but wood may not appear clearly. Ultrasound can help locate some objects beneath the skin. The clinician generally avoids blind or forceful probing because it can damage nearby tissue.

After removal, the wound may be rinsed and checked for remaining pieces. A dressing is usually applied. A larger cut may occasionally need stitches.

## Recovery and what to expect afterward

Mild soreness is common after the numbing medicine wears off. Follow the healthcare team's advice about pain relief. Increasing rather than improving pain should be assessed.

You can usually eat and drink normally. If you received sedation, follow the specific instructions given to you.

Keep the wound clean and dry as directed. You may need to change the dressing daily or whenever it becomes wet or dirty. Avoid activities that pull the wound open or press on the area. Restrictions may be greater if the splinter affected a hand, foot, joint, tendon, or nail.

You can usually drive after a simple removal with no sedation, provided the injury does not

prevent safe control of the vehicle. Do not drive after sedation or if pain, a bulky dressing, or reduced movement makes driving unsafe.

Many people return to work the same day or the next day. Work involving dirty water, heavy lifting, repeated hand use, or pressure on the injured area may require more time or temporary changes.

## Risks and possible complications

Possible risks include:

A retained fragment can cause continuing pain, swelling, drainage, or a small lump. Further imaging or another procedure may be needed if this happens.

Antibiotics like amoxicillin or doxycycline are not automatically needed after every splinter removal. They may be considered when infection is already present or the wound has particular risk factors. Tetanus vaccination needs are based on the type of wound and your vaccination history.

- Part of the object remaining beneath the skin
- Infection
- Bleeding or bruising
- Scarring
- Injury to a nerve, tendon, blood vessel, nail, or nearby tissue
- A reaction to local anaesthetic, skin cleanser, or dressing adhesive

## Results and follow up

You will usually know immediately whether the visible object was removed. The clinician may show it to you or explain whether it came out in one piece.

If there is concern about a remaining fragment, imaging or later review may be arranged. Material is not usually sent to a laboratory unless its identity is uncertain or there is another specific reason for testing.

Routine follow-up may not be needed for a small, uncomplicated wound. Follow-up is more likely after a deep removal, stitches, infection, injury near an important structure, or uncertainty that the whole object was removed.

## Alternatives

The alternatives depend on the material, location, and risk of leaving it in place.

Ask what may happen if the object is left in place and whether removal could cause more damage than observation.

- Home removal: Reasonable for a shallow, clearly visible splinter that can be grasped easily. It avoids a clinic visit but may leave fragments behind or cause injury if you need to dig.
- Observation: A tiny, painless, inert fragment may sometimes be watched. This avoids cutting the skin but accepts the chance of later pain, movement, inflammation, or infection.
- Imaging followed by planned removal: X-ray or ultrasound can help locate a deep object. This takes more time but can reduce unnecessary cutting and probing.
- Specialist or surgical removal: Appropriate near the eye, tendon, joint, nerve, or blood vessel, or when bedside removal fails. It offers better access but may involve a larger incision, sedation, or an operating theatre.

## When to call your healthcare team

Contact your healthcare team promptly if you develop increasing redness, warmth, swelling, pain, pus, an unpleasant smell, fever, or red streaking from the wound. Also call if the wound reopens, bleeding keeps returning, or you feel that part of the object remains.

Seek urgent assessment for new numbness, weakness, loss of movement, pale or blue skin beyond the wound, severe worsening pain, or an object near or in the eye.

Call emergency services for bleeding that is heavy and does not stop with firm pressure, or for signs of a severe allergic reaction such as trouble breathing or swelling of the face or throat.

Mild tenderness and a small amount of clear or blood-stained fluid can occur early in healing. Routine follow-up is appropriate if these do not gradually improve.

## Common questions

Will I be asleep?

Usually not. Most splinters are removed without anaesthesia or after numbing the skin. Sedation or general anaesthesia is uncommon and is mainly considered for complex removal.

Can I drive home?

Usually, if you did not receive sedation and can safely control the vehicle. A hand or foot dressing, pain, or reduced movement may make driving unsafe.

How painful is splinter removal?

Superficial removal may cause brief discomfort. Local anaesthetic injections can sting, but the area should then feel numb. You may notice pressure or pulling.

When will I know whether it worked?

Usually immediately. Imaging or follow-up may be needed if the object broke, was difficult to see, or could not be removed completely.

Will I need stitches?

Most small openings do not need stitches. A larger incision may be closed with stitches, adhesive strips, or skin glue.

Do I need a tetanus shot?

That is based on the wound and your vaccination history. The healthcare team can review your record and advise whether vaccination is due.

## Sources

- Rupert JW, Honeycutt JD, Odom MR. "Foreign Bodies in the Skin: Evaluation and Management." American Family Physician . 2020;101(12):740-747.
- Halaas GW. "Management of Foreign Bodies in the Skin." American Family Physician . 2007;76(5):683-688.
- Chan C, Salam GA. "Splinter Removal." American Family Physician . 2003;67(12):2557-2562.
- Centers for Disease Control and Prevention. "Clinical Guidance for Wound Management to Prevent Tetanus."
- Merck Manual Professional Edition. "How To Remove a Foreign Body From the Skin." Procedure guide.