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URL of this page: //medlineplus.gov/ency/article/007644.htm

Hardware removal - extremity

Surgeons use hardware such as pins, plates, or screws to help fix a broken bone, torn tendon, or to correct an abnormality in a bone. Most often, this involves bones of the legs, arms, or spine.

After your recovery, if you have pain or other problems related to the hardware, you may have surgery to remove the hardware. This is called hardware removal surgery.

Description

For the procedure, you may be given medicine to numb the area (local anesthesia) while you are awake. Or, you may be put to sleep so you do not feel anything during the surgery (general anesthesia).

Monitors will keep track of your blood pressure, heart rate, and breathing during the surgery.

During the surgery, your surgeon may:

- Open the original incision or use new or longer incisions to remove hardware.
- Remove any scar tissue that has formed over the hardware.
- Remove the old hardware. Sometimes, new hardware may be put in its place.

Depending on the reason for the surgery, you may have other procedures at the same time. Your surgeon may remove infected tissue if needed. If the bones have not healed, additional procedures may be done, such as a bone grafting or new fixation.

Your surgeon will close the incision with stitches, staples, or special glue. It will be covered with a bandage to help prevent infection.

Why the Procedure is Performed

There are several reasons why hardware is removed:

- Pain from the hardware
- Infection
- Allergic reaction to hardware
- To prevent problems with growing bones in young people
- Nerve damage

- Broken hardware
- Bones that did not heal and join properly (nonunion)

Risks

Risks for any procedure that requires sedation are:

- Reactions to medicine
- Breathing problems

Risks for any type of surgery include:

- Bleeding
- Blood clot
- Infection

Risks for hardware removal surgery are:

- Infection
- Re-fracture of the bone
- Nerve damage

Before the Procedure

Before the surgery, you may have x-rays of the hardware. You also may need blood or urine tests.

Tell your surgeon or nurse if:

- You are or could be pregnant
- You are taking any medicines, including medicines, supplements, or herbs you bought without a prescription

During the week before your surgery:

- You may be asked to temporarily stop taking medicines that keep your blood from clotting. These medicines are called blood thinners. This includes over-the-counter medicines and supplements such as aspirin, ibuprofen (Advil, Motrin), naproxen (Aleve, Naprosyn), and vitamin E. Many prescription medicines are also blood thinners.
- Ask your surgeon which medicines you should still take on the day of surgery.

On the day of surgery:

- Follow instructions about when to stop eating and drinking.
- Take the medicines your surgeon told you to take with a small sip of water.
- Arrive at the hospital on time.

After the Procedure

You should have someone drive you home after the surgery.

You will need to keep the area clean and dry. Your surgeon will give you instructions about wound care.

Ask your surgeon when it is safe to put weight on or use your limb. How long it takes to recover depends on whether you have had other procedures, such as a bone graft. Ask your surgeon how long it may take to heal so you can resume all your regular activities.

Outlook (Prognosis)

Most people have less pain and better function after hardware removal.

References

Baratz ME. Disorders of the forearm. In: Wolfe SW, Pederson WC, Kozin SH, Cohen MS, eds. *Green's Operative Hand Surgery*. 8h ed. Philadelphia, PA: Elsevier; 2022:chap 21.

Kwon JY, Gitajn IL, Richter M. Foot injuries. In: Browner BD, Jupiter JB, Krettek C, Anderson PA, eds. *Skeletal Trauma: Basic Science, Management, and Reconstruction*. 6th ed. Philadelphia, PA: Elsevier; 2020:chap 67.

Rudloff MI. Fractures of the lower extremity. In: Azar FM, Beaty JH, eds. *Campbell's Operative Orthopaedics*. 14th ed. Philadelphia, PA: Elsevier; 2021:chap 54.

Review Date 8/27/2024

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Health Content
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06/01/2028

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