

Removing Metalwork

What is Metalwork Used For?

Metalwork, including **plates, screws, rods, and wires**, is specifically designed from **stainless steel or titanium** for various **bone-related surgeries**, including:

- **Stabilizing fractures** to facilitate proper healing.
- **Fusing bones** to eliminate pain from arthritis (**arthrodesis**).
- **Correcting bone deformities** through **osteotomy** procedures.

Once the bone has **completely healed**, the **metalwork has served its function**.

Your **surgeon has recommended metalwork removal**, but **the decision to proceed is yours**.

This document provides essential **information on the benefits, risks, and procedure** to assist in making an **informed decision**.

If you have **any unanswered questions**, consult **your surgeon or healthcare team**. Once all concerns are addressed and **you decide to proceed**, you will be asked to **sign an informed consent form**—the final step in **the decision-making process**.

However, you **retain the right to change your mind at any time**.

What are the Benefits of Surgery?

Metalwork removal is considered for several reasons:

- To alleviate pain or discomfort caused by the metal implants.
- To manage an infection surrounding the metalwork.
- To prevent metal implants from being absorbed into the bone, particularly in growing individuals.
- To remove metalwork that may obstruct future surgical procedures.

Are There Alternatives to Surgery?

- Pain or discomfort related to metal implants may be managed with **painkillers**, avoiding **direct pressure**, and **staying warm in cold weather**.
- If there is an **infection**, antibiotics may help control it temporarily, but complete eradication usually requires metalwork removal.

What Happens if I Decide Against Surgery?

- Metal implants are typically **safe to leave in place**, even if they cause some discomfort.
- In **rare cases**, small metal fragments may migrate and cause complications.
- **Untreated infections** can lead to **bone and soft tissue damage**, and in severe cases, may cause **systemic illness**.

What Does the Operation Involve?

- The **healthcare team** will conduct pre-operative checks, ensuring the correct procedure and surgical site.
- **Anaesthetic options** will be discussed, which may include **general anaesthesia** or **local nerve blocks**.
- **Pain relief injections** and **antibiotics** may be administered during the procedure.
- The surgery typically lasts **30 minutes to an hour**.
- The **metalwork is usually removed through the original surgical incision**, but **scar tissue or bone growth** may necessitate a larger incision and the use of **X-rays**.
- **Stitches or skin clips** will be used to close the incision.

Medication Considerations

- Inform your **healthcare team** about all medications, including **blood thinners, supplements, and over-the-counter drugs**.
- Follow their recommendations regarding medication adjustments before surgery.

Pre-Operative Preparations

- **Quit smoking** to reduce the risk of complications and improve recovery.
- Maintain a **healthy weight** to lower surgical risks.
- Engage in **regular exercise** to **prepare for surgery and aid post-operative recovery**.
- **Infection prevention measures:**
 - Avoid **shaving or waxing** the surgical area in the week before surgery.
 - **Shower or bathe** the day before or on the day of surgery.
 - **Keep warm** before the procedure and notify the team if feeling cold.
 - **Diabetic patients** should maintain **blood sugar control**.
- Discuss **vaccinations** with the healthcare team to reduce post-operative illness risks.

Potential Complications

The surgical team will take precautions to **minimize risks**, but complications may still occur.

General Surgical Risks

- **Bleeding** during or after surgery; a **blood transfusion may be needed** in rare cases.
- **Surgical site infections** (risk: **1 in 300**). Signs include **fever, redness, swelling, pain, or pus formation**. Treatment may require **antibiotics, wound care, or additional surgery**.
- **Allergic reactions** to surgical equipment, medications, or materials. Inform the team of any **known allergies**.
- **Urinary retention**, sometimes requiring **temporary catheterization**.
- **Blood clot risks:**
 - **Deep vein thrombosis (DVT)** – Causes **leg pain, swelling, or redness**.
 - **Pulmonary embolism** – Occurs when a **blood clot travels to the lungs**, causing **breathlessness, chest pain, or coughing up blood**. **Seek emergency medical attention** if suspected.
- **Chest infections** – More common in **smokers** and individuals with **pre-existing lung conditions**.

Specific Risks of Metalwork Removal

- **Incomplete metalwork removal**, especially if the **implants are deeply embedded or covered by bone**.

- **Nerve injury** leading to **temporary or permanent weakness, numbness, or pain**.
- **Bone weakening**, potentially leading to **fractures** during or after surgery, requiring further treatment.
- **Complex regional pain syndrome (CRPS)** – Characterized by **chronic pain, stiffness, and swelling**, requiring **pain management and physiotherapy**.

Post-Operative Considerations

- **Pain management** – Medications will be provided to ensure comfort.
- **Scarring** – The **scar may be more prominent** if the previous surgical incision is reopened.

Recovery Timeline

In Hospital

- After surgery, you will be transferred to the **recovery area** and then to the **ward**.
- Keeping your **arm or leg elevated** will help **reduce swelling**.
- The healthcare team will **monitor circulation, bleeding, and swelling**.
- If an **infection was present before surgery**, additional treatment may be required.
- The **surgeon and physiotherapist** will guide you on movement restrictions and assist with **walking aids if needed**.
- **Wound care**: Keep the area **dry for 4–5 days** and use a **waterproof dressing** while bathing.

Returning Home

If you had a **general anaesthetic or sedation**, follow these precautions:

- A **responsible adult** should **accompany you home** and stay with you for at least **24 hours**.
- Avoid **driving, operating machinery, or engaging in hazardous activities** for at least **24 hours**.
- **Do not sign legal documents or consume alcohol** during this period.

Resuming Activities

- **Blood clot prevention**: Follow the healthcare team's instructions on **medications, compression stockings, and movement exercises**.
- **Movement restrictions**:
 - Keep the **operated limb elevated** for the first week to reduce swelling.
 - Gradually **increase mobility** as advised by your **surgeon and physiotherapist**.
 - **Use walking aids** as instructed.
- **Driving**: Avoid **driving or cycling** until you can **fully control your vehicle in an emergency**. **Check with your insurance provider** and **seek medical clearance**.

Long-Term Outlook

- **Full recovery may take six months or longer**.
- **Persistent pain** or discomfort may occur, often due to the **original injury or surgery** rather than the metalwork itself.
- If symptoms **persist after metal removal**, further **investigations or treatment** may be required.

Summary

Metal implants are commonly used to **aid bone healing**. Once the **bone is fully healed**, removal may be **recommended** if **symptoms persist or complications arise**.

Although **surgery is generally safe and effective, complications are possible**. Understanding **potential risks and benefits** will assist in making an **informed decision**.

Keep this document as a **reference** for discussions with your healthcare team.

Risk and complication data are based on **global studies and clinical databases**. If you require **personalized information**, consult your **surgeon or doctor**, who can also provide details on **alternative treatment options**.

This document is intended for **informational purposes only** and does **not replace professional medical advice**.

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