

## Clavicle Fracture Surgery

### Understanding the Clavicle

The **clavicle (collarbone)** is a long horizontal bone that connects the **breastbone (sternum)** to the **shoulder**. It plays a vital role in **arm movement** and **stabilization** by linking the arm to the central skeleton. Additionally, it serves as a **protective barrier** for major **nerves and blood vessels** that supply the arm.

Your **surgeon has recommended surgery** to treat your clavicle fracture. However, the decision to proceed is entirely yours. This document provides information about the **benefits, risks, and alternatives** to help you make an informed choice.

If you have **any concerns** or questions beyond what is covered here, discuss them with your **surgeon or healthcare team**. Once you are satisfied with the information and feel ready, you will be asked to **sign the informed consent form**, which is the final step in the decision-making process. However, you can **change your mind at any time** before the procedure.

### How Does a Clavicle Fracture Occur?

A clavicle fracture typically results from:

- A **direct impact** to the collarbone.
- A **fall onto the shoulder** from a height.
- A **high-speed impact**, such as during sports or an accident.

#### Types of Clavicle Fractures

- **Simple fracture** – A **minor crack** or a **clean break** in the bone.
- **Severe fracture** – The bone is **broken into multiple pieces** or is significantly displaced.
- **Open (compound) fracture** – The broken bone **pierces through the skin**, increasing the risk of **infection and complications**.

### What Are the Benefits of Surgery?

The goal of surgery is to **realign and stabilize the broken bone** while it heals. This improves the likelihood of:

- **Proper bone healing** in the correct position.
- **Restoration of arm movement and function.**
- **Reduced risk of long-term pain and stiffness.**

### Are There Alternatives to Surgery?

Some clavicle fractures **heal naturally** without surgery, particularly if the bone fragments are:

- **Not widely separated.**
- **Not broken into multiple pieces.**

In such cases, **non-surgical treatment** involves:

- Wearing a **sling** to support the arm.
- Taking **pain relief medication** (as advised by your doctor).
- Starting **physiotherapy** after the initial healing phase to regain movement.

## What Happens If I Choose Not to Have Surgery?

- Your **arm will be immobilized in a sling** to allow natural healing.
- A **physiotherapist** will assist you in **gradual movement exercises** to restore function.
- However, if the bones **do not heal in the correct position**, there is an increased risk of:
  - **Persistent pain and stiffness.**
  - **Limited shoulder and arm movement.**

### Timing of Surgery Matters

- Surgery typically provides **better long-term results** when performed **earlier** rather than later.
- Delayed treatment can result in **reduced shoulder mobility and strength.**



A clavicle fracture

## What Does the Operation Involve?

Before the procedure, the **healthcare team will perform several safety checks** to ensure that you are having the **correct operation** on the **correct side**. You can assist by **confirming your name and the procedure** with your surgeon and the medical staff.

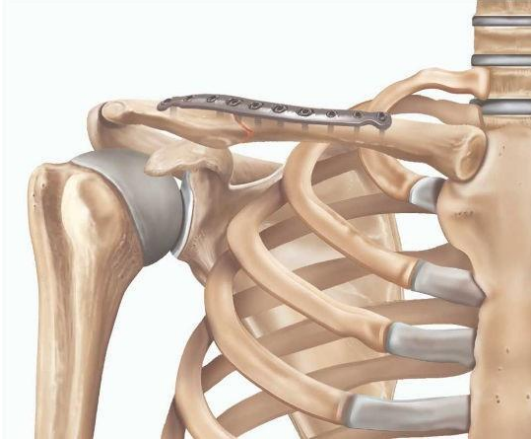
### Anaesthesia and Pain Management

- The surgery is **usually performed under general anaesthesia**, though alternative techniques may be available.
- Your **anaesthetist will discuss the best option for you**, taking into account your medical history.
- **Local anaesthetic injections** may be administered to **reduce post-operative pain.**
- You may receive **antibiotics during the operation** to help **minimize the risk of infection.**

### Surgical Procedure

- The operation typically takes **45 minutes to an hour.**

- Your surgeon will **make an incision at the front of your shoulder** to access the broken bone.
- The **fractured bone pieces will be realigned** to their correct position.
- The bone fragments will be **secured using one or more of the following methods**:
  - **Plates and screws** – Metal plates attached to the bone with screws.
  - **Metal pins** – Inserted inside the bone to hold the pieces together.
- Your surgeon will decide **the best fixation method** based on the **nature of your fracture**.
- The incision will be **closed with stitches or clips**, and your **arm will be placed in a sling** for support.



A plate fixed to the bone with screws

## Medication and Pre-Operative Preparation

### What Should I Do About My Medication?

It is essential to **inform your healthcare team about all medications you take**, including:

- **Prescription drugs**, especially **blood-thinning medications** (e.g., aspirin, warfarin, or anticoagulants).
- **Over-the-counter medications** (pain relievers, antihistamines, etc.).
- **Herbal remedies and dietary supplements** (e.g., fish oil, vitamin E, ginseng, or St. John's wort).

Your healthcare team will provide **specific guidance** on whether any medications should be continued, adjusted, or temporarily stopped before surgery.

## How Can I Help Ensure a Successful Operation?

### Lifestyle and Health Considerations

You can improve your chances of a successful procedure and a smooth recovery by taking the following steps:

- **Stop smoking** – Quitting **reduces the risk of complications** and improves long-term healing.
- **Maintain a healthy weight** – Being overweight increases the risk of **surgical and post-operative complications**.
- **Engage in regular exercise** – This can help **prepare your body for surgery**, support your recovery, and enhance overall health. Before beginning any exercise routine, consult your **GP or healthcare provider**.

### Reducing Infection Risk

To lower the risk of infection at the surgical site:

- **Do not shave or wax** the area where the incision will be made **for at least a week before surgery**.
- **Take a bath or shower** the day before or the morning of your operation.
- **Keep warm before and after surgery**—inform your healthcare team if you feel cold.
- **If you have diabetes**, keep your **blood sugar levels well-controlled** to **reduce infection risks**.

### Vaccinations and Hygiene Practices

- Speak with your **healthcare provider** about any **recommended vaccinations** to lower the risk of serious illness during recovery.
- When in the hospital, **practice good hand hygiene** and **wear a face covering** if requested by medical staff.

## Possible Complications

The healthcare team will take all **necessary precautions** to minimize the risk of complications. However, all surgeries carry some risks, and certain factors—such as **age, obesity, smoking, diabetes, heart disease, or lung conditions**—may increase your risk.

Some complications can be **serious** and, in rare cases, **life-threatening**. If you have concerns, discuss them with your **doctor or anesthetist**.

### General Surgical Risks

- **Bleeding during or after surgery** – In rare cases, a **blood transfusion** may be required.
- **Infection at the surgical site**, which may require **antibiotics or additional wound care**.
- **Blood clot formation** (deep vein thrombosis – DVT) in the **legs** or **lungs** (pulmonary embolism).
- **Chest infections**, with an increased risk in **smokers or individuals recovering from respiratory infections**.
- **Heart attack or stroke**, which in rare cases can be **life-threatening**.

## Possible Complications of Surgery

The healthcare team will take every precaution to minimize the risk of complications. However, all surgeries carry some level of risk. The likelihood of experiencing complications depends on various factors, including **age, weight, smoking status, and pre-existing medical conditions** such as **diabetes, heart disease, or lung conditions**.

If you have any concerns, speak with your **doctor or anesthetist**, who can provide personalized information regarding your specific risk factors.

### General Complications of Surgery

- **Infection at the surgical site (risk: 1 in 100)**
  - It is generally safe to **shower after two days**, but always confirm with your **healthcare team**.
  - Keep your **wound clean, dry, and covered** to reduce infection risk.
  - Contact your healthcare provider if you experience:
    - **Fever or high temperature**
    - **Pus or unusual discharge from the wound**
    - **Redness, swelling, or increasing pain around the wound**
  - Most infections resolve with **antibiotics**, but in some cases, **special dressings or an additional procedure** may be required.
  - **Do not take antibiotics unless prescribed by your doctor**.

- **Allergic reaction to surgical materials, equipment, or medication**
  - The healthcare team is trained to **detect and treat allergic reactions**.
  - If you have a **history of allergies**, inform your doctor before surgery.
- **Chest infection**
  - Your risk is **lower** if you have **stopped smoking** and have been **free from COVID-19 symptoms for at least seven weeks** before surgery.

## Specific Complications of Clavicle Surgery

In addition to general surgical risks, there are specific complications related to clavicle fracture surgery:

- **Bleeding into the shoulder (risk: 1 in 100)**
  - This may cause **pain and swelling**.
  - In rare cases, a **follow-up procedure** may be required to **wash out the shoulder joint**.
- **Restricted shoulder movement (Frozen Shoulder) (risk: 1 in 50)**
  - This condition can lead to **stiffness and limited motion**.
  - Treatment options include **physiotherapy, medications, and corticosteroid injections**.
- **Deep infection in the shoulder (risk: less than 1 in 100)**
  - A severe infection may require **intravenous antibiotics** or an additional procedure to **clean out the shoulder joint**.
- **Bone infection around the screws or plate (risk: 1 in 100)**
  - If an infection occurs at the site of fixation, a **course of antibiotics** or **removal of the hardware** may be necessary.
- **Blood clot in the axillary vein (thrombosis) (risk: less than 1 in 100)**
  - A clot in the axillary vein (located under the shoulder joint) may cause **arm swelling** and require **further treatment**.
- **Complex Regional Pain Syndrome (CRPS)**
  - A rare condition that causes **severe pain, stiffness, and loss of function in the arm and hand**.
  - The **exact cause is unknown**, and **recovery can take months or years**.
  - Treatment may involve **pain management strategies and physiotherapy**.

## Possible Risks and Consequences of Surgery

- **Complex Regional Pain Syndrome (CRPS)**
  - Recovery from **CRPS can take months or years**, and in some cases, **permanent pain and stiffness** may persist.
  - Taking a **daily vitamin C supplement for six weeks** after surgery may help **reduce the risk**—discuss this with your doctor.
- **Nerve Damage (risk: less than 1 in 100)**
  - The nerves around the shoulder may be affected, leading to **temporary or permanent weakness, numbness, or pain** in the shoulder or arm.
  - In most cases, **nerve function improves over time**.
- **Bone Misalignment or Failure to Heal (risk: 1 in 100)**
  - The bones may shift out of position or fail to heal correctly.
  - If this occurs, an additional **surgery may be required** to realign and stabilize the bones.

## Expected Outcomes of the Procedure

- **Pain Management**
  - The healthcare team will provide **pain relief medication**, which should be taken as prescribed to **allow movement and recovery**.

- **Scarring**
  - The **risk of visible scarring is higher in open surgery**, as the incision is larger and located at the front of the shoulder.
  - In most cases, the scar **heals neatly over time**.

## Recovery Timeline

### Hospital Stay and Immediate Post-Operative Care

- After surgery, you will be transferred to the **recovery area** before being moved to the **hospital ward**.
- Your arm will be **kept in a sling**, and your **surgeon or physiotherapist** will advise how long it should remain supported.
- **Most patients can go home the same day**, but in some cases, a longer hospital stay may be recommended.
- If you experience **any concerns in the hospital or at home**, contact the **healthcare team** for guidance and reassurance.

## Returning to Normal Activities

If you were given **sedation or general anaesthesia** and are discharged on the same day:

- A **responsible adult must take you home** in a car or taxi and stay with you for **at least 24 hours**.
- Stay **near a telephone** in case of emergency.
- **Avoid driving, operating machinery, cooking, or performing any potentially dangerous activities** for **at least 24 hours**, or until you fully regain **coordination, movement, and alertness**.
- **Do not sign legal documents or consume alcohol** for at least 24 hours.

### Wound Care and Follow-Up

- Keep your **wound dry for 4 to 5 days**, using a **waterproof dressing** when showering or bathing.
- **Stitches or clips are typically removed within 1 to 2 weeks**.
- You may require an **X-ray** to monitor the healing of the fracture.

### Physiotherapy and Rehabilitation

- A **physiotherapist will provide exercises and guidance** to support your recovery.
- Follow all **instructions carefully** to regain **strength and movement** in your arm.
- The healthcare team will advise when it is safe to **resume daily activities**.
- **Avoid contact sports or lifting heavy objects** until you receive medical clearance.
- It may take **up to a year to fully regain arm strength**.

### Driving and Physical Activity

- **Do not drive or ride a bike** until you can safely control your vehicle, including in emergencies.
- Check your **insurance policy and consult with your healthcare team** before resuming driving.
- Regular **exercise** can support your recovery—**seek medical guidance before starting a fitness routine**.

## Long-Term Outlook

- Most patients **recover well**, but **pain relief and mobility improvements take time**.
- Full **strength and range of motion** may not return to the same level as before the injury.

## Summary

For some types of clavicle fractures, surgery is the **most effective method** to ensure the bones heal correctly.

- **Surgery is generally safe and effective**, but as with any procedure, **complications can occur**.
- The decision to proceed with surgery should be based on a **clear understanding of the benefits and risks**.

## *Important Information*

*Keep this document for reference. It may be useful if you need to discuss any concerns with your **healthcare team**.*

*Some details, such as **risk statistics and complication rates**, are based on **global medical studies and databases**. However, individual risks may vary.*

- *Speak with your **surgeon or doctor** to understand how these risks specifically apply to you.*
- *They can also discuss any **alternative treatment options** that may be available.*

## *Disclaimer*

*This document is for **informational purposes only** and should **not replace professional medical advice** from your **doctor or healthcare team**. Always consult a qualified medical professional for guidance tailored to your health condition.*

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