CONDITION

Fractured clavicle in the newborn

A fractured clavicle is a break in a newborn baby's collarbone, usually related to pressure during birth.

WHAT IT IS
A break in a newborn's collarbone

BODY SYSTEM
Bones and joints

MAIN SYMPTOMS
Reduced arm movement, swelling, tenderness, collarbone bump

WHAT CAUSES IT
Pressure on the shoulder during birth

HOW IT IS DIAGNOSED
Examination, sometimes X-ray or ultrasound

MAIN TREATMENT
Gentle handling and pain relief

CAN IT BE CURED?
Yes - usually heals naturally within weeks

IS IT AN EMERGENCY?
Sometimes - breathing trouble or a cold, pale arm

LONG-TERM OUTLOOK
Usually complete healing without lasting problems

Overview

The clavicle is the collarbone. It connects the breastbone in the centre of the chest to the shoulder. A fractured clavicle means that this bone has cracked or broken.

A clavicle fracture can happen as a baby moves through the birth canal. It is one of the better-known bone injuries related to birth. It can occur during a difficult delivery, but it may also happen during a birth that seemed straightforward. Finding a fracture does not, by itself, mean that anyone did something wrong.

Some fractures are noticed soon after birth because the baby moves one arm less or appears uncomfortable when that side is touched. Others are found several days later, when a firm bump forms as the bone begins to heal.

The injury can be painful at first, but newborn bones usually heal quickly. Most babies recover with gentle handling and simple pain management. The condition matters because reduced arm movement can also be caused by a nerve injury, another fracture, or, less often, an infection. A healthcare professional should assess a baby who is not moving one arm normally.

Symptoms

A baby with a fractured clavicle may move the affected arm less than the other arm. This is sometimes called pseudoparalysis, meaning that pain makes the arm appear weak or paralysed even though the muscles and nerves may be working.

Other possible signs include:

The bump is usually healing tissue called callus. Callus forms around a broken bone and may become more noticeable before it gradually gets smaller. It does not usually mean that the injury is worsening.

Some babies have few obvious symptoms. A fracture may be discovered during a routine newborn examination or after a parent notices the bump.

Do not repeatedly press the area or test the baby's arm movement yourself. If the baby is moving one arm less, arrange a medical assessment.

- Crying or discomfort when the shoulder or arm is moved
- Swelling or tenderness over the collarbone
- A crackling or grating feeling over the break
- An uneven response when both arms are gently stimulated
- A firm bump over the collarbone several days later

Causes and risk factors

Most newborn clavicle fractures are caused by pressure on the shoulder and collarbone during birth. The bone may bend or break as the baby's shoulders pass through the birth canal.

The chance may be higher when:

These factors do not explain every fracture. Many affected babies have none of them. A fracture can also occur during a caesarean birth, although this is less common.

Parents do not cause a birth-related fracture by feeding, dressing, cuddling, or lifting their baby normally. Once a fracture is present, rough or unsupported movement may increase

discomfort, but ordinary gentle care does not usually interfere with healing.

- The baby has a higher birth weight
- The shoulders become temporarily stuck during delivery, called shoulder dystocia
- Labour or delivery is difficult
- Instruments such as forceps or a vacuum device are needed
- The baby is born in a breech position, with the feet or bottom first

Diagnosis

A healthcare professional will examine the collarbone, shoulder, arm, hand, and fingers. They will compare movement on both sides and check the baby's pulses, skin colour, reflexes, and response to touch.

A fracture may be diagnosed from the examination alone, especially if a healing bump can be felt. An X-ray can show the location and pattern of the break. Ultrasound may also identify a fracture without using radiation, although availability and local practice differ.

Imaging is not always necessary when the signs are clear and the baby is otherwise well. Repeat X-rays are also not routinely needed if movement and comfort improve as expected.

The examination helps distinguish a clavicle fracture from other causes of reduced arm movement. These include a fracture of the upper arm, injury to the brachial plexus nerves that control the arm, or an uncommon bone or joint infection. More than one birth injury can occur at the same time.

Treatment and management

Most newborn clavicle fractures heal without an operation. The main goals are to keep the baby comfortable and avoid unnecessary movement of the injured shoulder.

Support the baby's head, neck, shoulder, and arm when lifting or carrying them. Move slowly during dressing and bathing. Loose clothing that opens at the front may be easier to use. When dressing, place the affected arm into the sleeve first. When undressing, remove that sleeve last.

A clinician may suggest keeping the arm close to the body for comfort, sometimes by securing the sleeve to the front of the baby's clothing. Formal splints are rarely needed. Do not apply a tight bandage, sling, or homemade brace unless a healthcare professional has shown you how.

Tight devices can affect circulation or breathing.

Pain relief may be appropriate during the first few days. Newborns need medicine chosen according to their age, weight, and medical history. Use only a product and amount specifically recommended by the baby's healthcare professional. Do not give aspirin to a baby.

Breastfeeding or bottle-feeding can usually continue. A position that avoids pressure on the sore shoulder may be more comfortable. A midwife, nurse, or lactation specialist can help with positioning if feeding is difficult.

For sleep, continue to place the baby flat on their back on a firm, clear sleep surface. Do not use pillows, wedges, or sleep positioners to keep pressure off the fracture.

Routine follow-up may be used to check comfort and arm movement. A straightforward fracture that is improving may not require specialist bone care.

Complications

Complications from an uncomplicated newborn clavicle fracture are uncommon.

A visible or firm lump often develops during healing. This is normal callus rather than a complication. The collarbone may look uneven for a time, but a newborn's growing bone has a strong ability to reshape.

A brachial plexus injury can occur during the same birth. This involves the group of nerves that runs from the neck into the arm. Unlike movement limited mainly by pain, nerve-related weakness may remain after the fracture becomes comfortable. Persistent weakness, an unusual hand position, or little improvement in arm movement needs further assessment.

Failure of the bone to join, called non-union, is very rare in newborns. Lasting deformity or loss of shoulder function is also unusual.

Injury to nearby blood vessels, the lung, or the skin is possible but exceptionally uncommon. Changes in the hand's temperature or colour, breathing difficulty, or an open wound require urgent attention.

Prevention

A birth-related clavicle fracture cannot always be prevented. It may happen without warning, including during an otherwise uncomplicated birth.

Maternity teams assess factors such as the baby's position and estimated size and use established methods to manage a difficult delivery. However, estimates before birth are not

exact, and shoulder problems cannot always be predicted.

After diagnosis, gentle support may reduce pain while the bone heals. This does not mean that ordinary handling caused the fracture. You should still hold, feed, comfort, and care for your baby.

Living with it and what to expect

Discomfort and reduced arm movement are usually most noticeable during the first few days. As pain settles, the baby should gradually begin moving the arm more freely.

The bone commonly becomes firm and enlarged over the break as callus forms. The bump can seem more obvious during the early healing period. It then usually becomes less noticeable as the bone reshapes over the following months.

Most newborn clavicle fractures join within several weeks. Exact timing is not the same for every baby. Prematurity, another injury, or an underlying bone condition may affect recovery.

After healing, most children use both arms normally and have no long-term limits on play or physical activity. The fracture does not usually make the collarbone permanently weak.

Keep routine newborn and child health appointments. Mention any continuing difference in arm movement, strength, or position, even if the fracture itself appears to have healed. Persistent weakness may need assessment by a paediatric, nerve, or rehabilitation specialist.

When to get medical help

Arrange prompt medical assessment if your newborn has not already been examined and you notice reduced movement of one arm, swelling over the collarbone, pain with handling, or a new collarbone bump.

Contact the baby's healthcare team promptly if a diagnosed fracture is becoming more painful rather than improving, or if the baby:

A fever in a young baby needs urgent medical assessment and should not be assumed to come from the fracture.

Seek emergency help if the baby has trouble breathing, develops blue or grey lips, is very difficult to wake, or has a hand or arm that becomes cold, pale, blue, or severely swollen. An open wound over the fracture or uncontrolled bleeding also needs emergency care.

If the baby is comfortable, feeding normally, and gradually moving the arm more, follow the routine review plan provided after the birth or diagnosis.

- Stops moving the arm after previously moving it
- Has increasing redness, warmth, swelling, or fluid from the skin
- Feeds poorly or is unusually difficult to settle
- Has weakness that continues as the pain improves
- Has a temperature of 38°C or higher when younger than 3 months

Common questions

How long does a newborn clavicle fracture take to heal?

Most heal within several weeks. Arm movement often improves before the healing bump disappears. The bump may take several months to flatten as the bone reshapes.

Is the hard bump on my baby's collarbone normal?

It is often normal healing callus. The body produces this firm tissue to stabilize the break. A clinician should assess the bump if the fracture has not been diagnosed, or if the area is red, hot, draining fluid, or increasingly painful.

Can I pick up and cuddle my baby?

Yes. Support the baby's head, neck, shoulder, and affected arm, and avoid sudden pulling or lifting under the arms. Gentle cuddling does not usually delay healing.

Can my baby breastfeed with a broken collarbone?

Usually, yes. Try positions that place less pressure on the injured side. Feeding support can help if the baby seems uncomfortable or has trouble latching.

Will my baby use the arm normally?

Most babies regain comfortable, normal movement as the fracture heals. If movement remains limited or the hand and arm appear weak after pain improves, the baby should be checked for an associated nerve or arm injury.

Does a fractured collarbone mean the birth was handled incorrectly?

Not necessarily. These fractures can occur during both difficult and apparently uncomplicated births. The presence of a fracture alone does not show that it was predictable or preventable.

Sources

- Children's Hospital of Philadelphia: Fractured Clavicle in the Newborn



- Merck Manual Consumer Version: Birth Injuries in Newborns
- Nationwide Children's Hospital: Clavicle Fracture in a Newborn
- Stanford Medicine Newborn Nursery: Clavicle Fracture
- Royal Children's Hospital Melbourne: Clinical Practice Guideline-Clavicle Fractures