CONDITION

Fractured rib

A fractured rib is a crack or break in a bone that protects the chest.

WHAT IT IS
A crack or break in a rib

BODY SYSTEM
Bones, chest wall, and breathing

MAIN SYMPTOMS
Chest pain, tenderness, bruising, painful breathing

WHAT CAUSES IT
Injury, forceful coughing, or weakened bone

HOW IT IS DIAGNOSED
Clinical assessment, chest X-ray, or CT scan

MAIN TREATMENT
Pain relief, breathing exercises, and gradual activity

CAN IT BE CURED?
Yes - most fractures heal naturally

IS IT AN EMERGENCY?
Sometimes - severe breathing trouble or major trauma

LONG-TERM OUTLOOK
Most heal well over about six weeks

Overview

A fractured rib is a crack or complete break in one of the bones around your chest. These bones form the rib cage, which protects the lungs, heart, and other organs.

Most rib fractures happen after a blow to the chest, a fall, or a vehicle crash. A rib can also break after repeated forceful coughing, especially if the bone has been weakened by osteoporosis. Osteoporosis makes bones less dense and easier to break.

A simple rib fracture usually heals without an operation. The main concern is that pain can make you take shallow breaths or avoid coughing. This can allow mucus to collect in the lungs and raise the risk of a chest infection.

Some injuries involve several ribs or damage the lung, blood vessels, or organs beneath the ribs. The seriousness therefore depends on more than the crack itself. It also depends on the

force of the injury, the number and position of the broken ribs, and your general health.

Symptoms

Pain is the main symptom. It is often sharp and becomes worse when you take a deep breath, cough, sneeze, laugh, twist, or bend.

Other symptoms can include:

You may remember hearing or feeling a crack at the time of injury, but this does not confirm a fracture. A bruised rib can cause very similar symptoms.

Pain can sometimes be felt away from the exact fracture site. Lower rib injuries may also cause pain in the upper abdomen. Shoulder or abdominal pain after a significant chest injury needs medical assessment because it can be a sign of an injury beneath the ribs.

- Tenderness when the injured area is touched
- Swelling or bruising over the rib
- Pain when lying on the affected side
- Shallow breathing because deeper breaths hurt

Causes and risk factors

The most common cause is blunt trauma. This means a direct force that does not break the skin, such as a fall, sports collision, assault, or impact from a seat belt during a crash.

Less often, a rib can fracture because of repeated strain. A severe or prolonged cough can place enough stress on a rib to cause a small crack. Repetitive upper-body movements may also contribute to a stress fracture.

Factors that can make a fracture more likely include:

A fracture caused by a minor movement or without a clear injury may need further investigation for weakened bone. This does not mean there is necessarily a serious underlying condition.

- Osteoporosis or another condition that weakens bone
- Older age, when bones may be less strong
- Contact sports or activities with a risk of falling
- Long-lasting or forceful coughing

- Cancer that has spread to a rib, which is uncommon

Diagnosis

A healthcare professional will ask how the injury happened, where it hurts, and whether you are short of breath. They may gently press the chest and listen to your breathing. The abdomen may also be examined, particularly after a lower rib injury.

Imaging is not always needed for a minor, isolated injury. A bruised rib and a simple fracture are often managed in much the same way. An ordinary chest X-ray can show some fractures and may reveal a collapsed lung or fluid around the lung, but small or recent cracks can be missed.

A CT scan produces more detailed images. It may be used after a major injury, when several fractures are suspected, or when there are concerns about damage inside the chest or abdomen. It exposes you to more radiation than a standard X-ray, so it is not routinely needed for every painful rib.

Ultrasound, MRI, or a bone scan may be considered in selected cases, such as a suspected stress fracture or an unexplained fracture.

Treatment and management

Most uncomplicated rib fractures are treated without surgery. Treatment aims to control pain well enough for you to breathe deeply, cough, sleep, and remain gently active.

Pain relief may include paracetamol, also called acetaminophen, or an anti-inflammatory medicine such as ibuprofen. Anti-inflammatory medicines are not suitable for everyone, including some people with kidney disease, stomach ulcers, bleeding risks, or certain other health conditions. Follow the product instructions or advice from a healthcare professional.

For severe pain, stronger prescription medicine or a local anaesthetic injection around a nerve may be considered. Some stronger pain medicines can cause drowsiness, constipation, or slowed breathing.

Helpful measures during recovery include:

You may be given a handheld device called an incentive spirometer. It encourages slow, deep breaths and helps keep the lungs expanded. Use it as instructed.

Do not tightly wrap or strap the chest. Although this may reduce movement, it also limits deep breathing and can increase the risk of lung complications.

Hospital care may be needed for breathing problems, several fractures, uncontrolled pain, or

injuries to the lungs or other organs. Surgery to stabilise ribs with plates is reserved for selected injuries, such as severely displaced fractures or an unstable section of chest wall.

- Applying a wrapped ice pack for short periods during the first few days
- Taking regular slow, deep breaths while awake
- Coughing when needed rather than suppressing it
- Holding a pillow gently against the chest when coughing
- Walking and changing position regularly
- Returning to normal activity gradually as pain allows

Complications

Most isolated rib fractures heal without a major complication. Problems are more likely after a high-force injury, with several broken ribs, or in people who are older or have existing heart or lung conditions.

Possible complications include:

Rarely, a rib heals slowly or does not join firmly. This is called delayed union or non-union. It can cause continuing pain or a clicking sensation and may need specialist assessment.

- Atelectasis: part of the lung does not fully expand, often because breathing is shallow
- Pneumonia: a lung infection that may develop if mucus is not cleared
- Pneumothorax: air leaks around a lung and causes it to partly or fully collapse
- Haemothorax: blood collects in the space around a lung
- Lung contusion: bruising and bleeding within the lung tissue
- Internal organ injury: lower rib fractures can sometimes affect the liver, spleen, or kidneys

Prevention

Not every rib fracture can be prevented. Unexpected falls, crashes, and forceful coughing can occur despite reasonable precautions.

You can reduce some risks by wearing a seat belt, using suitable protective equipment for contact sports, and following workplace safety measures.

Fall prevention is especially important if your bones are less strong. Helpful steps may include improving lighting, removing loose rugs, wearing stable footwear, and reviewing medicines

that cause dizziness.

Bone health also matters. Regular weight-bearing activity, adequate nutrition, avoiding smoking, and limiting heavy alcohol use support bone strength. If you have osteoporosis or have had a fracture after a minor injury, assessment and treatment of bone health may lower the chance of future fractures.

Living with it and what to expect

Pain is often strongest during the first several days. It should gradually become easier to breathe, move, and sleep, although coughing or sudden movement may remain uncomfortable for longer.

Many uncomplicated rib fractures heal in about six weeks. Recovery can take longer if several ribs are broken, the fracture is displaced, or another chest injury is present. Some tenderness may continue after the bone has become stable.

Stay gently active rather than remaining in bed. Avoid heavy lifting, contact sports, and movements that sharply increase pain while the rib heals. Return to work depends on your symptoms and the physical demands of your job.

Sleeping slightly upright may feel more comfortable at first. You can adjust your position as pain improves, but avoid placing prolonged pressure on the injured area if it increases discomfort.

Routine repeat X-rays are not usually needed when symptoms are steadily improving. Arrange follow-up if pain is not easing, stops you from breathing deeply despite treatment, or remains significant after the expected healing period.

Most people return to their usual activities without lasting limitations. Recovery may be slower for older adults and for people with lung disease, osteoporosis, or multiple injuries.

When to get medical help

Arrange a prompt medical assessment after a significant chest injury, especially if pain is making it difficult to breathe deeply. Earlier assessment is also sensible if you take blood-thinning medicine, have osteoporosis, or developed rib pain without a clear injury.

Seek urgent medical advice if you develop:

Call emergency services for severe difficulty breathing, blue or grey lips, fainting, new confusion, coughing up more than a small streak of blood, or chest pain after a major crash or

fall. These symptoms can indicate damage to a lung or another internal organ.

- Increasing breathlessness rather than gradual improvement
- Fever, a worsening cough, or yellow or green mucus
- Pain that is getting worse or is not controlled enough to breathe deeply
- New abdominal or shoulder pain
- Continuing pain or clicking after several weeks

Common questions

How can I tell if my rib is broken or just bruised?

It is difficult to tell from symptoms alone. Both can cause sharp pain, tenderness, bruising, and pain with breathing. An X-ray may not show a small fracture, and imaging may not change treatment when the injury is minor and breathing is normal.

How long does a fractured rib take to heal?

Many simple rib fractures heal in about six weeks, but there is no exact timetable. Pain usually improves gradually. Multiple fractures, displaced bones, older age, and other chest injuries can lengthen recovery.

Should I sleep on the side with the broken rib?

Use the position that allows comfortable breathing and sleep. Some people prefer lying on the uninjured side or sleeping partly upright at first. Avoid a position that causes sharp pain or makes breathing feel restricted.

Can I exercise with a fractured rib?

Gentle walking and normal daily movement are usually helpful. Avoid contact sports, heavy lifting, and exercises that cause sharp chest pain. Activity can be increased gradually as breathing and movement become more comfortable.

Why do I need to take deep breaths if it hurts?

Shallow breathing can prevent parts of the lungs from fully expanding and can allow mucus to collect. Regular controlled deep breaths and normal coughing help reduce the risk of lung infection. Pain that prevents this needs medical review.

Can a broken rib puncture a lung?

It can, but this is not the usual outcome of a simple fracture. A sharp or displaced rib can damage the lung and cause air or blood to collect around it. Sudden or worsening breathlessness requires urgent assessment.

Sources

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