



A guide to...

Rib Fractures

Patient Information

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Ratified / Review Date	April 2024 / April 2027
ID Number	45/2224/V1



What is a rib fracture?

A rib fracture is when one or more of the bones in the rib cage breaks or cracks. Rib fractures are when someone with weak bones is unable to cough or take a deep breath. It is one of the most common injuries to the chest and a fracture may occur following an injury such as a fall, road traffic accident or from contact sport. Occasionally, they may happen due to overuse of the muscle that surround the ribs in sports with repetitive actions or following a long-term cough.

The pain you experience from a chest injury or rib fracture will be worse when breathing deeply, coughing and moving. It is natural to want to avoid this pain by not taking deep breaths, coughing and staying as still as possible. **This is the wrong thing to do creates a risk of complications like a chest infection.**

Other complications can include pneumothorax (air collecting in between the lung and the chest) and haemothorax (blood collecting in between the lung and chest).

Signs and symptoms

Pain is the most common symptom of chest injuries/rib fractures and is often made worse by laughing, coughing and deep breathing.

Most rib fractures will heal by themselves within four to six weeks; however, it can sometimes take longer to become pain free.

How are rib fractures diagnosed?

Rib fractures do not always show on a chest x-ray, so your doctor may not request one, they might request a CT scan to check for any chest injuries.

What can I do to help myself if I have chest injuries/rib fractures?

It is important to try to keep mobile and ensure you can deep breathe and cough. This will help to prevent complications like a chest infection.

Avoid smoking, it is recognised that smokers have a higher risk of developing complications such as chest infections after rib fractures. Also avoid excessive alcohol intake as this can delay the healing process.

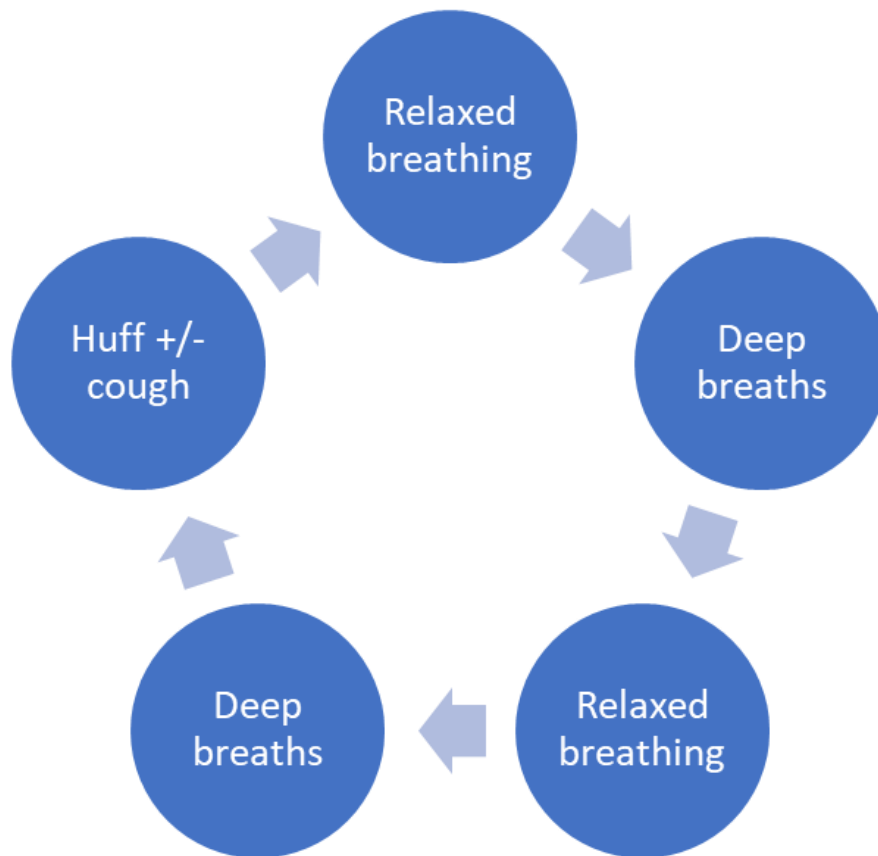
Take regular pain medication so you can breathe deeply and cough effectively whilst the injury heals.

You should aim to complete routine, everyday activities as much as possible e.g. going for a walk once-a-day, getting up and moving around your home every one to two hours, and making yourself a drink or something to eat.

Breathing exercises

Simple deep breathing exercises should be done hourly. Do this by taking a long slow breath in through your nose, and gently breathing out through your mouth. Repeat three to four times every hour.

The 'active cycle of breathing technique' (ACBT) is a set of breathing exercises repeated in a cycle to keep your chest clear and your lungs well ventilated. These exercises should be performed sitting in a comfortable position, with your head, neck and arms well supported and shoulders relaxed. This cycle of exercises can be done a few times a day, or whenever you feel the need to cough to clear your chest.



Relaxed breathing

Normal, gentle breathing in through your nose and out through your mouth. You should see your tummy rise and your upper chest should be relaxed.

Repeat for 20-30 seconds

Deep breathing

Take slow deep breaths in through your nose, filling your lungs completely.

- Hold for three seconds.
- Sniff as strongly as you can
- Breath out gently

Repeat three to four times

Huff

Take a deep breath in and then with your mouth open, breath the air forcefully out of your lungs, as if you are steaming up a mirror. This must be long and strong enough to move phlegm from the bottom of your lungs.

Follow this with a cough and then relaxed breathing until you have your breath back.

If any phlegm is coughed up into your mouth, do not swallow, but try to spit it out into a tissue.

It is important to complete these exercises as pain from rib fractures can make it difficult to take deep breaths and to cough. This can make it hard to clear the chest of any phlegm which increases your risk of developing a chest infection and pneumonia.

You may find it helpful to hold a pillow or folded towel over the area of the broken ribs while you are coughing. This can help decrease the amount of pain produced with coughing and enable your cough to be more effective.

Upper limb exercises

It is important to exercise your shoulders as they can become stiff as it might be painful to move properly.

It is normal to feel a dull ache type pain at rest or while doing exercises. Exercises for the shoulder should be gentle and not increase your rib pain. These exercises will help to prevent developing problems at your shoulder joint.

Please check with your physiotherapist or doctor if it is safe to do these exercises. You may have other injuries that interfere with doing these exercises.

You should do these exercises three times a day.

Shoulder flexion

Sitting on a chair with your hands resting on your lap. Keeping your arms straight, lift your arms up in front of you as much as you can. Repeat 10 times.



Images of a man doing the exercise

Shoulder abduction

Sitting on a chair, put your hands on your shoulders. Lift your arms up to the side as far as you can.

Repeat 10 times, three times a day.



Images of a man doing the exercise

Trunk rotation

Sitting on a chair, cross your arms over your chest. Rotate your body to one side. Hold for a few seconds then slowly return to the middle. Repeat in the other direction.



Images of a man doing the exercise

Treatment of chest injuries/rib fractures

Good pain medication is the best treatment as it will allow you to move more easily and reduces the risk of chest infection by helping you to breathe deeply and cough.

Pain medication you may be given include:

Paracetamol

Most people can take paracetamol safely. Paracetamol can be combined with other pain medication but you must ensure the other pain medications do not already contain paracetamol.

Non-steroidal anti-inflammatory drugs (NSAIDs)

These include ibuprofen, naproxen and diclofenac. These should be taken for a short period of time only (no more than two to three weeks).

You should also check that you do not have any of the following medical conditions as you may not be able to take NSAIDs:

- Stomach problems such as an ulcer
- Bleeding problems or if you take a blood thinning medication e.g. Warfarin
- Heart problems such as a recent heart attack
- Asthma

You may be recommended to take medication with your NSAIDs to prevent stomach problems. If you are unsure, please check with your doctor or healthcare professional.

Opioids

Such as codeine, dihydrocodeine, tramadol; these can cause drowsiness and constipation. If you are feeling drowsy after taking opioids the dose may need to be reduced. If this persists seek medical advice from your doctor, pharmacist or GP. Do not use any machinery, sign legal documents or drive if you are drowsy.¹ Ensure all pain medicines are stored safely.

If you are feeling constipated, treat it promptly. Speak to your pharmacist for advice and treatment options. Drinking plenty of water and eating fruit and vegetables high in fibre will help to prevent constipation.

To help you recover, pain medication should be taken on a regular basis throughout the day. Your level of pain will indicate what you need to take:

- To treat mild pain, paracetamol may be sufficient when taken on a regular basis.
- To treat moderate pain, you may require a combination of paracetamol, NSAIDs and codeine.

Initially you will need to take pain medication regularly to enable you to deep breathe and cough effectively. As your pain eases you will be able to reduce the frequency you take your pain medication. If you need further advice, you can ask your doctor or pharmacist.

It is important to follow the instructions on how to take the pain medication to get the best results from them and never take more than the recommended dose.

Surgery

Rib fractures usually heal without surgery, however in some cases an operation is required to stabilise the fractures using plates and screws. This is usually only in cases of severe injury or multiple fractures. Your doctor will discuss with you if they feel you require surgery to manage your rib fractures.

Returning to normal activity/work

Depending on your job and severity of your injuries, you may need to take some time off work or do lighter duties while your fractures heal. The doctor will give you a 'fit note' if this is the case. You may be given advice from your doctor on discharge from hospital or you can speak to your GP.

Contact sports should be avoided for at least six weeks to avoid rib fractures failing to heal and therefore delaying recovery. Delayed healing can lead to long term problems, particularly with pain.

It is recommended that you do not drive with broken ribs as the pain and discomfort can make it difficult to handle the vehicles controls effectively.

Precautions

- Do not strap your chest/ribs, this may help with pain but will stop the lungs from expanding which may lead to chest infection
- Do not rest in bed for long periods
- Do not avoid coughing
- Do not lift, pull or push anything which makes the pain worse.

When should I contact my doctor?

- If you have a fever
- If you develop bruising to your chest
- If you develop an uncontrollable cough
- If you are coughing up thick, discoloured phlegm
- If your pain is uncontrolled.

When should I seek immediate help?

- If you begin coughing up blood
- If the pain in your chest is so severe that it stops you from deep breathing or coughing
- If your breathing becomes more difficult or you develop increased shortness of breath or chest tightness
- If you become unwell with a temperature
- If you develop abdominal pain.

¹ [Drugs and driving: the law - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/drugs-and-driving-the-law)