

Early Management of Rib Injury

A Patient Information Guide



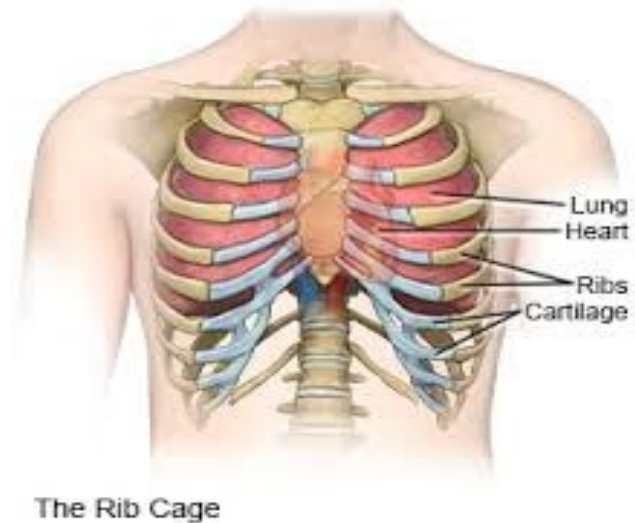
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It should be noted this patient information booklet is for patients with **non severe rib/chest injuries who do not require hospital admission. It is not for severe or multiple injuries where In Patient treatment is needed**

Structure of The Rib Cage



The rib cage is made up of a number of structures - 12 ribs, cartilage, sternum (breast bone) and the vertebrae of the spine where it also attaches. The rib cage is covered with a number of muscles which allow it to move. It's main functions are to protect the organs which lie within the cage as well as assisting our breathing. The movements of the rib cage (up and out as we breathe in and down and in as we breathe out) allow our lungs to fill and empty.

Further treatment – if you do not notice an improvement in your pain levels within 3-6 weeks, liaise with the First Contact Physiotherapy Practitioner in your GP practice/with your GP directly/or by contacting a Chartered Physiotherapist.

Re-attendance at ED – it is important you re-attend ED **immediately** if you notice any of the following

- if you are becoming breathless
- if you are becoming feverish/feeling unwell
- if your pain is worsening
- if you are coughing up blood.

Further information

Broken or bruised ribs <https://www.nhs.uk/conditions/broken-or-bruised-ribs/>
Rib Injuries <https://patient.info/bones-joints-muscles/rib-injuries>

Use of an Incentive Spirometer (see below) – this is occasionally given to patients following assessment. This device is to encourage them with a deeper breath. This device is not given to all patients but is often considered for patients with significant existing chest problems who have a high likelihood of deterioration

To use this:

-Sit up as straight as possible, breathe out fully and place in mouth making a tight seal with your lips around the mouth-piece then

-Breathe in slowly and hold your breath for 2-3 seconds before breathing out. Use every half hour during waking hours.

-Clean mouth-piece with soap and water regularly. Don't let other people use the device



Injury to the Rib Cage

Commonly people bruise or fracture ribs and this is an obvious reason for injury. Other structures that can be also injured include the muscles which surround the ribs or also the sternum.

Although painful injuries the good news is they usually heal themselves. This area is not an area which is splinted and often X-ray is not indicated. Improvement in symptoms is usually noted within 3 -6 weeks from injury.

Cause of Injury

- Fall
- Blunt trauma (impact related injury during sport/assault/road traffic accident)
- Following severe bouts of coughing

Symptoms of Injury

- Strong pain in the chest area especially when breathing in, changing position, turning your body and when rolling onto the painful side when sleeping
- swelling/bruising occasionally seen
- tenderness to touch
- feeling or hearing a crack during movement/breathing

Advice to help your recovery

Medication (especially pain control) - Liaise with your Community Pharmacist/GP for advice regarding this.

Ice/Heat – In the first 24 hours following injury you may find some pain relief by applying ice (frozen bag of peas wrapped in a damp towel- 10 minutes every 2-3 hours). From approximately 3 days after injury heat e.g. a warm shower/bath can be useful particularly before doing the exercises included in this booklet.

Movement – by trying to maintain movement e.g. regular gentle walking and avoiding prolonged sitting or lying you will be helping to reduce stiffness and improving your chest function.

Sleeping – consider sleeping in a more upright position this may be more comfortable.

Bandaging – don't try to bandage around your chest wall this restriction may limit your ability to breathe normally.

Exertion – although gentle activity is fine, you should avoid any activity which is very strenuous. For work related duties you may have to liaise with our employer to see if alternative duties are possible until your symptoms ease.

Sport –do not do any exercise that adds to your pain. Avoid returning to contact sports until your symptoms have recovered.

Shoulder raises (upwards) – try moving your arms (together or separately) in front of your body, as if reaching up to head.



Side bends – in sitting (or standing), gently allow your trunk to bend over to one side, return to the start position before bending to the other side.



Shoulder raises (sideways) – try moving your arms (together or separately) out to the side, as if raising arms up to head.



Chest infection after Rib Injury

The most common medical complication following rib injury is the development of a chest infection. Unfortunately this is more common among those with existing chest issues and smokers. This problem usually develops as a result of pain, patients often unwittingly limit the depth of their breathing and avoid activities like coughing. This protective behaviour can allow mucus (phlegm) to build up in our chest which can lead to infection.

Reducing the risk of Chest Infection

-**Adequate pain control** to make breathing/coughing more comfortable and to make patients less protective of breathing and movement.

-**Trying to remain active** – regular gentle walking even around your home can encourage deeper breaths and help to shift any phlegm in your chest

-**Regular deep breaths** - 4-5 deep breaths (in through the nose, held for 2 seconds and out through the mouth). This should be done every 30 minutes during waking hours. It is important when doing this that you put 1 hand on the upper part of your chest and the other at the bottom of your rib-cage. Aim for little movement at the upper hand and greater movement at the bottom hand as you breathe deeper into your chest (See below).

Take regular deep breaths



Coughing/clearing phlegm – if you feel you have something to clear, run through the breathing exercises above. Place a pillow around the painful area/or place your arm around your body as if you were hugging yourself (see below). This makes the action of coughing more comfortable. Lean forward and try a few firm coughs towards the floor.



Hydration – try to ensure your intake of fluid is good as this will ensure phlegm is easier to clear.

Smoking – avoid smoking.

Other exercises to help your recovery – try 5 repetitions of each exercise 3 times a day. Try to add an extra repetition each day. Slight discomfort can be expected but not severe pain. If this is the case, reduce the number you are doing or avoid the exercise which is particularly painful.

Trunk rotations – in sitting, place arms across your body and gently turn your upper body to one side, return to the start position and then turn to the other side.

