



YOUR GUIDE TO

RIB INJURIES

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Introduction

Please take note of the following before starting any of the exercises in this guide:

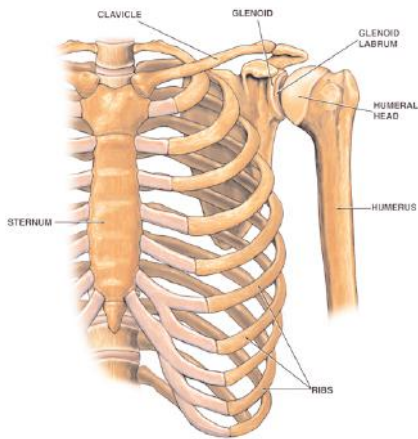
- The information contained in this guide is intended to assist in managing your recovery.
- This guide is based on the latest medical research in the field and contains the best advice available to the best of our knowledge.
- This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation. Never disregard medical advice or delay in seeking advice because of something you have read in this guide.

● Many people have found quick and lasting relief from their pain by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

When consulting your health professional, it is wise to take this guide with you to show them.

What are rib injuries?

The term rib injury can refer to both a break and a bruising of one or more ribs. Rib injuries mostly occur when there is a force applied to the chest wall such as from; a fall, road accident, tackle made in sports or an assault. Other causes of rib injuries include those which are caused by the force of the muscle itself. These include; severe coughing, straining, or heavy lifting in sports or work. This type of injury is however more common in people who have an underlying weakness such as osteoporosis (thinning of the bone). Due to the structure of the chest wall, chest pain could also be related to a number of other conditions such as; structures which are contained in the chest wall e.g. the heart and lungs as well as referred pain from the neck, shoulders or back.



ANATOMY OF THE CHEST WALL

The chest wall is composed of 12 ribs which connect to the sternum (breast bone) at the front, and to the 12 thoracic vertebrae at the back. The two layers of intercostals muscles are situated between the ribs, and underneath each rib there is a neurovascular bundle which contains the intercostals nerve, artery and vein. It is through this bundle that pain from the neck or back can be referred to the chest wall. This continuity of the chest wall with the spine, sternum and shoulders (via the collar bone and muscle attached to the shoulder blade), explains how individuals can injure their ribs either directly from a blow to the chest, or indirectly as a result of forces transmitted through the chest wall. Therefore, because of all the structures that are connected to and protected by the chest wall, it is important if you are experiencing chest pain, to consult with your doctor. Your doctor will be able to perform a full examination and rule out any serious complications which could be associated with your pain

What are the symptoms and how is it diagnosed?

The main symptoms of a rib injury are pain over the injured rib, which is often increased with movement, deep breathing and coughing. Rib injuries are usually diagnosed by your doctor, who will take a full account of what happened and perform an examination to determine the origin of your pain. X-rays can be used to help diagnose a rib fracture, however

rib fractures do not always show up on an x-ray. Therefore the main aim of an x-ray would be to rule out any other complications that could have occurred as a result of your injury rather than as a tool for diagnosis of a fracture. If no complications are suspected by your doctor, you will probably not be required to have an x-ray

Are there any complications of Rib injuries?

Most rib injuries heal on their own after 4-6 weeks with no problems. However in some cases complications may occur if internal organs become damaged either with the break from sharp ends of bone, or due to an infection which develops secondary to reduced breathing capacity. Complications that may occur include:

Pneumothorax: This occurs when the membrane that surrounds the lung gets damaged and air is allowed to enter into the small space between this membrane and the lung. This increase of air in this space results in the lung being squashed. Symptoms include pain on breathing and shortness of breath, and it can be picked up on an x-ray. A

Pneumothorax is usually noticed soon after the injury, but can occur a few days later, and it is therefore important to be aware of sudden symptoms of shortness of breath, increased pain on breathing or pain that is not over the fracture site. A Pneumothorax may require treatment which involves the removal of the air under anaesthetic.

Air under the skin: A sharp fractured rib can allow air from the lung to get in under the skin resulting in a swollen or bubbly area which may crackle when pressed. This is called 'surgical emphysema', and it is important to consult with your doctor if crackling occurs over the injury site.

Haemothorax: This is similar to a Pneumothorax except that there is blood and not air trapped in the lung. The blood collects at the base of the lung, resulting in shortness of breath and pain over the lower part of the chest on breathing. This is treated under anaesthetic by draining the blood.

Abdominal Injuries: Damage to the lower ribs can result in damage to the kidneys, liver and spleen which all lie in this area. Symptoms include pain in the abdomen, and if there is internal bleeding, you will feel faint and generally very unwell. Urgent medical attention is required.

Chest infection: Rib fractures can make breathing deeply or coughing properly extremely painful. If air does not reach the lower parts of the lungs, there is an increased chance of bacteria building up and infection resulting. It is therefore essential that you are under effective pain control and that you perform the breathing exercises provided in this pack regularly with support over the injury site. This will ensure that deep breathing is performed and help to prevent an infection occurring.

If you develop any of the above complications, it is essential that you contact your GP so that appropriate treatment can be given.

What treatment can I receive?

PAIN RELIEF

The most important treatment for bruised or broken ribs is effective pain relief. Keeping pain under control with this type of injury is essential to ensure that you are able to take deep breaths and cough effectively to prevent you developing a chest infection. Simply putting up with the pain of a rib injury is therefore not a good idea and it is essential that you consult your doctor as soon as possible. The type of pain relief you receive will be dependent on the severity of your pain as well as any contraindications that you may have to certain medications. It is also important with the pain medication that you take it regularly as prescribed, and don't wait for the pain to start, as again this may result in your breathing being restricted and could lead to the development of a chest infection.

BREATHING EXERCISES

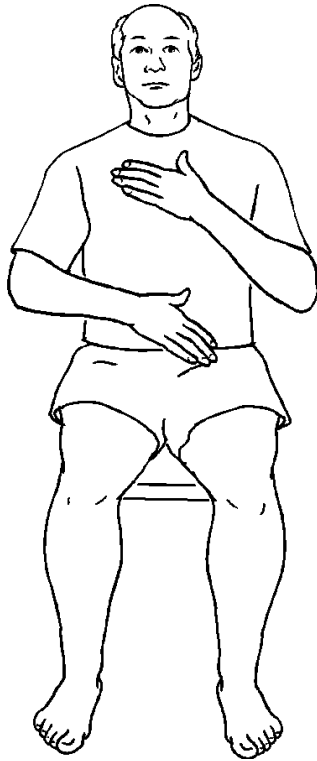
Continuing to take deep breaths is important with this type of injury and therefore breathing exercises are important to ensure that regular deep breaths are taken. Breathing exercises should be performed regularly throughout your day, with support being provided to the injured rib by holding a towel/pillow over the area before performing deep breaths

or coughing. When doing the breathing exercises it is essential that you perform them within your pain tolerance. If you are experiencing increased pain it is important that you contact your GP so that your medication can be adjusted as deep breathing is important and you should be able to perform it if you have sufficient pain medication. Always consult with your GP before making any adjustments to any recommended medications. It is also advised that if you are a smoker you try to stop or reduce the number of cigarettes you smoke a day. Taping up the chest area is not recommended as once again this will restrict the movement of your rib cage and your ability to take deep breaths. Also try to avoid lying on the affected side.

SHOULDER EXERCISES

It is important to also exercise the shoulder on the affected side, as this can often become stiff as you will probably be trying to protect your injured rib and be limiting the arm and shoulder movement on this side. Gentle range of movement exercise for the shoulder should not increase your rib pain, and will help to prevent any problems from developing with your shoulder joint

Exercises



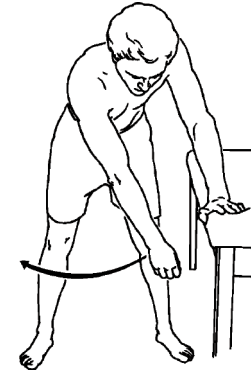
BREATHING EXERCISES

Sitting on a chair or long sitting on a bed in an upright position. Place a towel or pillow over the injured side putting pressure over it to provide support. Initially concentrate on normal breathing, taking air in through your nose and out through your mouth, keeping your shoulders relaxed, with most of the movement occurring over the lower rib cage and abdomen (not in your shoulders). Now try and take a deep breath in, hold for 2-3 seconds and repeat 2-3 times and then return to relaxed breathing. This cycle can be repeated about 3-4 times a session, and 2-3 times a day. At the end of each deep breathing cycle, try cough. Make sure that when you cough, you apply extra pressure/support over the injured region. As already stated it is important that you are not in too much pain and if this is the case, consult with your GP so that your pain medication can be adjusted

SHOULDER MOBILITY

Perform the following movements, making sure that you move your arm within a pain free range of movement. With each exercise hold onto a table with the uninjured arm, lean slightly forwards so that your arm is hanging down and completely relaxed and then allow it to move in the following ways:

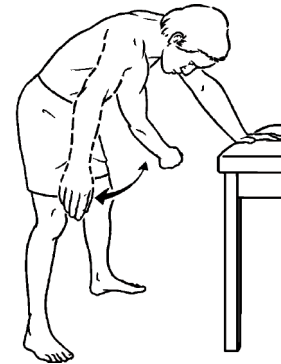
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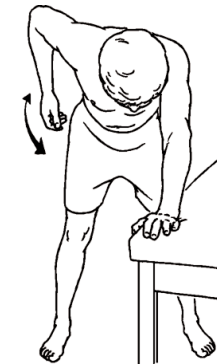
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Contact us

This guide is designed to assist you in the self-management of your injury/condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

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