Rib Fractures and Chest Injury
Information For Patients
Introduction

This pamphlet will give you information about the injury to your chest wall, including:

- fractured (broken) ribs
- fractured sternum (broken breast bone)
- fractured clavicle (broken collar bone)
- chest wall bruising

Injuries to the chest can be very painful. Unlike other parts of the body, it is difficult to rest your chest as you have to use it to breathe, and it helps support you when you sit up and lie down.

Pain is one of the main problems people have after chest injuries. The amount of pain you feel and how long it lasts will depend on the type of injury you have, and how badly you have been hurt. As a rough guide, broken ribs, clavicles, and sternums take about 6–8 weeks to heal completely. Bruising can take between 2–4 weeks to heal.

Pain is often the worst for the first 2–5 days and then it starts to feel quite a bit better. Part of the pain is caused by the soft tissue injuries (muscles, tendons, ligaments) that are also injured when there is a fracture to any bone. Most people find that by about 10 days after their injury they are feeling a lot better.

While you are in the hospital, your Nurse will give you regular pain medications that your Doctor has ordered. This will help when your Physiotherapist gets you out of bed to walk, and also to help you rest more comfortably when you are asleep.

Understanding chest injuries and avoiding complications

Taking deep breaths and coughing are important normal actions that our bodies do every day. They help us to avoid getting chest infections (pneumonia).

If you have had a chest injury, you may have an increase in the amount of mucus (phlegm, sputum) you produce in the days following your injury. Sometimes if there has been bruising to your lungs you may cough up some mucus that may have a drop of blood in it. Make sure you let your Doctor or Nurse know if you do cough up any blood.

Chest infections (pneumonia) are one of the most common complications after an injury to the chest. Because you may be in pain after your injury, it can sometimes mean it hurts more when you try to take a deep breath or cough. Also you may not be moving around as much as usual which can allow the mucus to sit at the bottom of your lungs and develop into an infection.
Other, less common injuries are:

- **Pneumothorax**: this means air in the thorax (chest wall).
  Some people may call it a “collapsed lung”.
  - This happens if the membrane (lining) around the lung is damaged, usually from a broken rib scratching it.
  - Air then gets in and fills up the space around the lung, which makes it hard for the lung to “puff up” the way it normally does when we breathe. It is usually noticed soon after the injury as it may cause you to be short of breath, or have pain when you breathe.
  - A pneumothorax can show up on a chest X-ray and depending how big it is; it may need treatment to remove the trapped air. This is usually done with a small plastic tube (chest tube) under a local anesthetic. (See: What is a chest tube? page 9)
  - **Air travel**: Ask your Doctor when you can fly in an airplane again. Some people need to wait a certain amount of time before it is safe for them to fly.

  **Note**: Anyone who has sudden difficulty breathing or who feels more breathless than usual needs to seek medical attention immediately.

- **Hemothorax**: this means blood in the thorax (chest wall)
  - This is similar to a pneumothorax except there is blood, not air, trapped around the lung. The blood collects at the bottom of the lung, so it may cause you to be short of breath or have pain in the lower part of your chest.
  - It is treated by draining off the trapped blood with a small plastic tube (chest tube) under a local anesthetic. (See: What is a chest tube? Page 9)

- **Subcutaneous emphysema**: this means extra air trapped under the skin
  - this can cause a bubbly, swollen area on the chest and can sometimes be linked to a pneumothorax. Some people say the skin feels like the popping of “rice krispies” (cereal)

- **Abdominal (belly) injuries**: The lower ribs are near the liver, spleen and kidneys. Broken ribs can sometimes cause damage to these organs. Symptoms may be:
  - Pain in the abdomen and/or back
  - Sometimes the pain can travel to the shoulder as well
  - Sometimes you may have blood in your urine

Usually the bleeding of an organ will stop on its own but it is important to rest for the first day or two without much walking. Your Doctor will advise you in more detail if this happens.

**Diagram 1**
Treatment

After your Doctor has looked at your X Ray he/she will decide if you have to stay in the hospital and if there is any surgery needed to fix any of the broken bones. (ribs, sternum, clavicle). Generally surgery is not needed.

The most important thing you can do is to try to avoid getting a chest infection (pneumonia) as your injury is healing. There are things you can do when you are in the hospital or at home to help this from happening.

DO:

- **Take your regular pain medicine**
  - This will help you to move and take the deep breaths and do the coughing exercises that will speed up your recovery.
  - If your Doctor has prescribed medication follow those instructions carefully. Your Doctor may also recommend that you take medicine that you can buy in your local drug store. These may include:
    - Acetaminophen (Tylenol) ___ mg ___ times a day.
    - Ibuprofen (Advil) ___ mg ___ times a day
    - Naproxen (Aleve) ___ mg ___ times a day.

*Note: You and your Doctor will decide whether it is better for you to take Advil (Ibuprofen) or Aleve (Naproxen). They should not both be used*
  - Discuss with your Doctor or Pharmacist before taking any of these pain medications to make sure they don’t react with any medications you are already on or any health problems you may have.

- **Deep breathing and coughing exercises**
  - Deep breathing helps open the air passages in your lungs and coughing helps to bring up the mucus from your lungs.
  - Here are 2 different ways to do the exercises that are both very good.

  **“Take 10”:**
  - Take 10 deep breaths from the bottom of your lungs every hour while you are awake. This may make you feel like you have to cough. Place a pillow or folded towel over your chest and hold it tightly when you cough. This will help to make it more comfortable for you.

  **“4-7-8”:** (This is also relaxing if you are having trouble sleeping)
  - Breathe in deeply for the count of 4
  - Hold it for the count of 7
  - Breathe out (exhale) for the count of 8
  (Repeat this 10 times every hour while you are awake.)

  - Keep moving. (i.e. walking) This is the best way to help you take deep breaths and cough up any sputum.
  - Sneezing can also be uncomfortable with chest injuries. If you need to sneeze place an object like a pillow or rolled up jacket next to your chest to lessen the sudden jarring movement.
  - Keep your shoulders moving doing light everyday activities that you can manage without making your pain worse (unless you are told not to because of other injuries).
  - If you go in a car, place a pillow in between your injured chest area and the seat belt. This will make it more comfortable for you.
• Eat a diet high in fiber and drink lots of water and fruit juices. Some of the medications you may be on can cause constipation.

• When you are resting in bed or in a chair, wiggle your toes and ankles frequently. This helps to keep the blood moving through your legs.

• If you smoke seek help to stop. Go to this website or ask your Family Doctor for advice. http://vch.eduhealth.ca/PDFs/DB/DB.420.Q6.pdf

• Keep an eye on your symptoms for signs of complications.

DON’T:

• Lie down or sit still for long periods of time.

• Lift, pull or push anything that makes the pain worse.

• Exercise hard enough to break out into a sweat until your Doctor says you can.

What to do if you feel unwell when you get home

Even after following all of the above advice, some people may still end up with a chest infection (pneumonia) after they go home.

Please seek further medical advice from your Family Doctor if you experience any of the following:

• the mucus you cough up becomes discoloured (i.e. yellow, brown)

• you feel sick and have a fever

• you start coughing up blood.

If you call your Doctor’s office and it is closed, there will be a message on the answering machine telling you what to do next.

You can also visit a Walk-in Clinic.

If you experience any of the following symptoms you need to dial 911 immediately:

• ongoing or worsening shortness of breath (difficulty breathing)

• increasing chest pain

• sudden worsening in pain or shortness of breath

Returning to work

Please remember to ask your Doctor how long you should remain off work.

If your job involves a lot of lifting and moving, you may need to talk to your employer about whether you can do other duties while your injury heals.

If you have any concerns about your ability to return to work it may be helpful to talk to your Family Doctor.

What is a chest tube?

A chest tube is also known as a chest drain, or chest drainage tube. It is a plastic tube that is put through the side of your chest. It uses suction to remove air, blood, or fluid from around your lungs or heart which drains into a container placed on the side of your bed or on the floor. A chest tube will help you breathe more easily.
How will the chest tube be put in?

- You will be asked to either sit or lie in a comfortable position by your Doctor. The drain is usually put into the side of your chest below the armpit, as it is more comfortable and you can sleep on your back.
  - The skin where the chest tube will be put in will be cleaned with a solution to kill bacteria.
  - Next, a numbing agent (local anesthetic) will be injected into the skin to numb the place where the chest tube will go. Some people say that it stings a little, but this passes quickly.
  - The Doctor will then make a small cut in the numb area of the skin and gently open a pathway for the chest tube. This shouldn’t be painful but you might feel some pressure or tugging.
  - The chest tube is then gently eased into the chest and held in by a stitch or two.

Will it be painful?

- A local numbing agent will be injected into your skin so you won’t feel the chest tube being put in. Most people get some pain from their chest tube after it is put in. Your Doctor will order pain medications to make it more comfortable for you. Be sure to let your Nurses know when you need some more.

Looking after your chest tube

- After your chest tube is put in, the air or fluid around your lungs will drain out into the chest drainage container and you should be able to breathe more easily. Your Nurses will take care of your chest tube for you but here are a few tips that will make it easier for you.
  1. Keep the drainage container on the floor or attached to the side rail of your bed.
  2. Don’t leave the ward without letting your Nurse know.
  3. Try not to bang it over on its side as you move about as there are some breakable parts.
  4. Your container may be connected to the wall to allow gentle suction to help drain the air or fluid. Your Nurse will need to disconnect it before you go for a walk or to the bathroom.
  5. Please let your Nurse know if you are having pain. It is important that you are able to breathe easily and do your breathing exercises. (page 7)
  6. Please let your Nurse know if you feel any new difficulty breathing or are having more pain than usual.

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When is the chest tube taken out?

- That depends partly on the type of injury you have and how quickly your body is healing. It can be anywhere between one day and many days. You may need to have several chest X Rays during this time so your Doctor will know when it can be removed.

- Removing the tube is not difficult and will be done by either your Nurse or your Doctor. Once all the dressings are removed, the drain is gently taken out. This can feel slightly uncomfortable but only lasts for a few seconds. After your chest tube has been removed, a stitch is often left in the skin for about 7 days.

- Most people feel much better after the tube is removed and find moving and sleeping much easier.

- You will need to have your stitches removed in about 7 days. This will either be done while you are in the hospital, at your Family Doctor’s office, or at the Trauma Outpatient Clinic.

- When you go home, take your pain medication as ordered by your Doctor (page 6) and continue to follow all the instructions in this booklet on activity, chest exercises and when to call your Doctor.

Further advice

This pamphlet is a general guide about chest injuries. If you have any other questions about your current injuries after you have been discharged home, please contact your Family Doctor or go to your local Walk in Clinic.

Note: Anyone who has sudden difficulty breathing or who feels more breathless than usual needs to seek medical attention immediately.