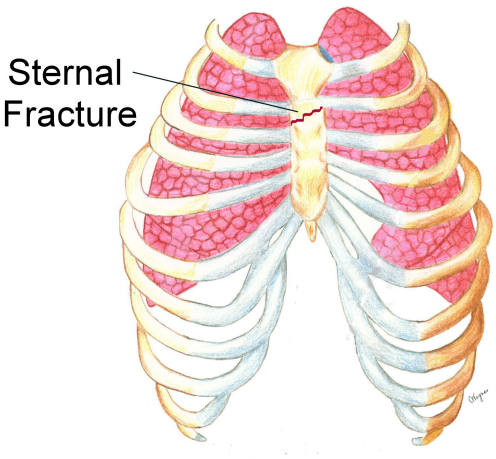
Sternal Fractures

The sternum is the bone in the center of the front of your chest which your ribs attach to. It is also called the breast bone. The most common cause of a sternal fracture (break in the bone) is an injury. The most common injury is from a motor vehicle accident. The fracture often comes from the seatbelt or hitting the chest on the steering wheel or being forcibly bent forward (shoulders towards your knees) during an accident. It is more common in females and the elderly. The fracture of the sternum is usually not a problem if there are no other injuries. Other injuries which may happen are to the ribs, heart and lungs in addition to the abdominal organs.



SYMPTOMS

Common complaints from a fracture of the sternum include:

- Shortness of breath.
- Pain with breathing or difficulty breathing.
- Bruises about the chest.
- Tenderness and/or a cracking sound at the breast bone.

DIAGNOSIS

Your caregiver may be able to tell if the sternum is broken by examining you. Other times studies such as x-ray, CAT scan, ultrasound, and nuclear medicine are used to detect a fracture.

TREATMENT

- Sternal fractures usually are not serious and if displacement is minimal, no treatment is necessary.
- The main concern is with damage to the surrounding structures - ribs, heart, great vessels coming from the heart, and the back bone in the chest area.
- Multiple rib fractures may cause breathing difficulties.
- Injury to one of the large vessels in the chest may be a threat to life and require immediate surgery.
- If injury to the heart or lungs is suspected it may be necessary to stay in the hospital and be monitored.
- Other injuries will be treated as needed.
- If the pieces of the breast bone are out of normal position, they may need to be reduced (put back in position) and then wired in place or fixed with a plate and screws during an operation.

HOME CARE INSTRUCTIONS

- Avoid strenuous activity. Be careful during activities and avoid bumping or re-injuring the injured sternum. Activities that cause pain pull on the fracture site(s) and are best avoided if possible.
- Eat a normal, well-balanced diet. Drink plenty of fluids to avoid constipation, a common side effect of pain medications.
- Take deep breaths and cough several times a day, splinting the injured area with a pillow. This will help prevent pneumonia.
- Do not wear a rib belt or binder for the chest unless instructed otherwise. These restrict breathing and can lead to pneumonia.
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.

SEEK MEDICAL CARE IF:

- An oral temperature above 101.5º F (38.6º C) develops, not controlled by medication.
- You develop a continual cough, associated with thick or bloody mucus or phlegm (*sputum*).

SEEK IMMEDIATE MEDICAL CARE IF:

- You have increasing difficulty breathing.
- You feel sick to your stomach (*nausea*), vomit, or have belly (*abdominal*) pain.
- You have worsening pain, not controlled with medications.
- You develop pain in the tops of your shoulders (in the shoulder strap area)
- You feel lightheaded or faint.
- You develop chest pain or an abnormal heart beat (*palpitations*).
- You develop pain radiating into the jaw, teeth or down the arms.

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