



Pectus Carinatum

What is it?

Pectus carinatum is the **second most common chest wall deformity** found in children. It is a birth defect in which the **chest protrudes over the sternum** and in some cases, the deformity is not noticeable until after the adolescent growth spurt. There are two main types:

Chondrogladiolar type

- Prominent middle and lower sternum,
- More common

Chondromanubrial type

- Prominent upper sternum
- Less common.


Symptoms and treatment are relatively similar for both types



Symptoms

- Lower stamina
- Chest pain
- Chest wall tenderness
- Shortness of breath
- Palpitations
- May be associated with scoliosis, severe asthma and connective tissue disorders



- 
- Body image issues (most common)
 - Low self-esteem
 - Increased social anxiety



Issues

Treatment




Bracing

- Continuous pressure is applied for **14h-24h** per day over **16 months** to the protruding deformity
- Corrective braces surround the thorax and have at least 2 points of contact
- Is usually applied to children aged **10-15 years**.

Ravitch Procedure

- Involves an incision across the chest,
- The deformed cartilages are then removed from each side of the chest, and at least one sternal osteotomy (break)
- A mesh or a stainless steel may then be used to secure the sternum at the desired height.
- This technique may be utilised for all subtypes of pectus carinatum.

Modified Ravitch procedure

- A long curved bar is placed in front of the sternum via lateral chest wall incisions.
 - Is fixed to the ribs for **at least 12 months** after the chest deformity is manually depressed to the desired level.
 - Is less invasive than the original Ravitch procedure
 - Not useful to treat the chondromanubrial type
- 
- 