Pectus excavatum occurs in approximately 1 in 400 live births. The chest defect becomes progressively worse with growth and in the teenage years can become disabling. Although considered cosmetic, and not life threatening, it can affect the patient's self image. In some cases, there are also physiological changes such as decreased effort tolerance and cardiac arrhythmias. The young patients become used to the chest disability and are not really aware of any physiologic abnormalities until after the chest defect is repaired. For a good description click here.

The standard repair in the past is the open or Ravitch operation which was first described in 1950 and became the standard. This procedure involves resecting multiple cartilages on each side of the sternum and splitting the sternum longitudinally to place it in the new position. A new Nuss procedure began 16 years ago is a minimally invasive procedure which involves placing a steel bar behind the sternum pushing the chest outward to correct the deformity. This procedure is now the procedure of choice. The results from many centres are excellent and compare very favourably with the older Ravitch operation.

There are two main approaches to repair the chest defect. Click here for more information. The Nuss operation is a minimally invasive procedure which was described in detail in this article (click here). For a good article click here. The Nuss procedure is now being performed in South Africa. For more information...