



Pectus Carinatum

What is a pectus carinatum?

A pectus carinatum, often called "pigeon breast," is a protrusion of both the sternum (breast bone) and the cartilage portion of the ribs. (Figure 1)



Figure 1

How does a child get a pectus carinatum?

- The exact cause of pectus carinatum is unknown. It does run in families, so there is some inherited tendency for the condition.
- It occurs more frequently in boys than girls.
- It is not noted in almost one-half of the affected children until after their eleventh birthday.
- A mild deformity noted at birth or in early childhood often worsens as the child grows, particularly at puberty.
- An association with scoliosis is seen in 15% of children with pectus carinatum.

How is a pectus carinatum treated?

- Correction of pectus carinatum requires surgery.
- A pre-op evaluation is performed 1-2 weeks before surgery. At this time you will meet with a:
 - nurse practitioner who works with the surgeon,
 - nurse,
 - anesthesiologist,
 - lab technician to have your child's blood drawn.
- General anesthesia is used for the surgery.
- Your child will be in the hospital for 4-6 days following the surgery.

How does the surgeon repair it?

- An incision will be made across the chest in between the nipples.
- The breastbone and the cartilage portion of the ribs, which are producing the protrusion, are then exposed.
- The bulging portion of the cartilage is then removed leaving behind the membranes surrounding the cartilage, which will regrow cartilage.
- The front wall of the breastbone is then divided so the breastbone can be displaced backward into a normal position completing the correction of the anterior protrusion.
- The muscles are then rejoined to the chest and the skin incision is closed.
- Figure 2 shows the same boy following his surgical repair.



Figure 2

Will I/my child be "put to sleep" during the surgery?

- A member of the anesthesia department will meet with you and your child before surgery. He or she will take a health history, perform a physical exam, discuss the plan for anesthesia, and answer any of your questions.
- You/your child will be asleep under general anesthesia for this procedure. Vital signs will be fully monitored throughout the surgery. A nurse anesthetist, an anesthesia resident, or an anesthesia attending will be at your/their side throughout the procedure.

- The surgery requires insertion of a breathing tube while you/your child is asleep. Additional "IV" lines and a bladder catheter may be required.

What happens after surgery?

- After the operation, you will go to the recovery room, and then be transferred to the surgical floor after approximately 1-2 hours.
- You may have a small drain beneath the incision which will be taken out 1-2 days after operation.
- You will be encouraged to walk on the first day after the operation.
- You can eat/drink if you are feeling well enough the day after surgery.
- You will need to return to your surgeon's office approximately 2 weeks after your operation.

How will my/my child's pain be managed?

- The Pain Treatment Team will oversee your/your child's pain management. The Pain Team doctors and nurses will visit you/your child every day and are available 24 hours a day.
- There are 2 ways your/your child's pain can be managed: **PCA pump or Epidural catheter.**
- The **PCA pump** (Patient Controlled Analgesia) requires you/your child to push a button on the pump. This sends a dose of the pain medicine into your/your child's IV. There are safety mechanisms to prevent you/your child accidentally getting too much of the pain medicine.
- The **Epidural catheter** (similar to what is used during childbirth) is a continuous infusion of pain medicine through a small catheter in your/your child's back. The catheter may be inserted before the beginning of the surgery while you/your child is well sedated. Because local anesthetic (like numbing medicine at the dentist's) is used, some numbness or weakness may temporarily be noticed after surgery. Occasionally, patients may complain about itching from epidural pain medication.
- For more information, ask a member of your health team for the information sheet on Epidural catheter or PCA pump.

When should I call my child's doctor?

Call your child's surgeon if your child:

- develops redness or swelling around the wound,
- has drainage or bleeding from the incision,
- has a fever of 100.5° or greater,
- has severe pain that does not get better with pain medicine, or
- develops shortness of breath.

Numbers to Call

Monday – Friday 8:30am – 5:00pm	Nurses' line (617) 355-7704 Nurse Practitioners' line (617) 355-7716
Evening, Nights, Weekends, and Holidays	Page Operator (617) 355-6369 Ask for the surgeon on-call.

A [Spanish](#) version of this is available from your provider

Send comments or questions to: Familyed@childrens.harvard.edu
