The Pectus Carinatum Brace: Frequently Asked Questions

What is Pectus Carinatum?

Pectus Carinatum is a pediatric condition in which the sternum is pushed outward. This happens when there is an overgrowth of costal cartilages which connect the ribs to the sternum in the chest. If the pectus carinatum is severe, it can prevent a person from exhaling completely. A pectus carinatum brace may be prescribed by the physician treating this condition as part of a comprehensive plan of care.

How does the pectus carinatum brace work?

A brace can be used in the treatment of pectus carinatum. The brace has two cushioned plates that have been custom designed for the wearer’s chest and body shape. One plate rests on the prominent part of the chest that is being treated, and the other is in the middle of the back. The plates are connected with an aluminum bar with adjustable ratchets or soft dacron straps with velcro. The brace is tightened to produce constant mild pressure over the prominent area of the chest, and will slowly mold the chest wall into the correct position. Sometimes shoulder straps are incorporated into the brace to hold it in the correct position. Many wearers find that it is most comfortable to wear an undershirt under the brace. Typically, the brace can be used to treat pectus carinatum until the person has reached skeletal maturity (completed growth). Progress in correcting the pectus carinatum will be monitored with regular follow-ups with the orthotist (person who designs, makes and adjusts the brace) and the doctor.

How often will the brace need to be worn?

The brace should produce enough pressure to leave mild redness on the skin under the chest pad, but not so much to cause skin breakdown or bruising. The brace should be removed for bathing, swimming, and athletics, including gym class. The brace should never be worn during contact sports. For best results, the brace should be worn all the time except for bathing, swimming and athletic activities.

Is the brace uncomfortable?

It takes some time to get used to wearing the brace, but it should not be uncomfortable. There is an initial break-in period to get used to the brace and be sure there are no problems. If the brace hurts, come back to the orthotist immediately to have the brace evaluated and adjusted as needed. This type of brace is custom-made and can be adjusted to accommodate growth, activity level, or other factors so that a proper fit is maintained.

How to Care for the brace
Do not use lotions on the skin where the pads sit, as this can soften the skin and cause skin problems. You can clean the brace with rubbing alcohol or mild soap and water. Heat will ruin the brace, so do not put it in the dryer, use a blow dryer on it, or leave it in a hot car.

**Why is it important to wear the brace correctly?**

Worn correctly, these braces are highly effective at treating pectus carinatum. UNC Hospitals’ treatment program has successfully treated many kids over the last several years. The brace should always be worn with the chest pad over the prominent area that is being treated. If the chest pad is worn over other parts of the chest, it can create a sunken area in the chest called pectus excavatum. Also, the brace should be tightened the amount shown at fitting or marked on the straps by the orthotist. If the brace is worn overly tight, it can cause the affected area to over-correct, causing a sunken area in the chest (pectus excavatum). The brace should not be tampered with, including removing shoulder straps. If something is uncomfortable or seems to need adjustment, please return to see the orthotist for any adjustments. The physician who prescribed the brace will direct the course of care and decide when the brace can be discontinued. Regular follow-ups with both the orthotist and the physician are required during brace treatment.

**Contact Information**

Call the UNC Hospitals Department of Prosthetics & Orthotics ("Brace Shop") for questions, follow-ups and adjustments. 919-966-4630.