

**Children’s Surgical Specialty Group - Pediatric Surgery-Nuss Center**

**PROTOCOL FOR MRI OF CHEST WHEN EVALUATING FOR PECTUS EXCAVATUM/CARINATUM**

**Important: The MRI/ CT MUST be done on quiet respiration. If this is not done correctly, the Haller index will be falsely low.**

MRI scan of chest ordered **without contrast**

MRI scan done:

Small child – 4mm thick, 4mm spiral sections

Large child – 8 mm thick, 8 mm spiral sections

MRI scan done starting at thoracic inlet through bony thorax, arms overhead

MRI scan starts with AP and lateral scout and film run to include:

Soft tissue windows

Bone windows

Lung windows

When dictated, impression should include, but not limited to:

* Haller index and from what image measurement was taken. Haller index is the transverse (coronal) measurement divided by the AP (sagittal) measurement at its deepest point. Measurements greater than 3.2 are considered severe
* Symmetry
* Rotation/non-rotation of sternum and the degree of rotation
* Cardiac impressions should include but not limited to the presence of the following:

Compression

Displacement

Distortion of shape

* Pulmonary impressions should include but not limited to:

Compression

Presence of Atelectasis

Distortion of shape

Skeletal (rib or vertebral) anomalies

* Other organ involvement or skeletal defects that the Pectus deformity may have an effect upon must also be noted.

**Please send the CD of MRI along with radiologist interpretation.**

Please contact call us with any further questions at the Nuss Center 757-668-6877 or you can email us at [pectus@chkd.org](mailto:pectus@chkd.org).