



## PECTUS EXCAVATUM EXERCISE INSTRUCTIONS

Patients with Pectus Excavatum frequently have a posture, which accentuates the defect. The typical “Pectus posture” includes forward sloping shoulders, a kyphotic spine (curved forward) and a protuberant abdomen. This posture undoubtedly makes the Pectus look worse than it is. A mild Pectus may, therefore appear to be severe simply because the posture is poor. Whether posture plays any role in the worsening of a mild Pectus is uncertain.

The purpose of the exercise program is to get the patients to straighten their thoracic (upper) spine and pull their shoulders back and develop a “military” posture. All exercise is good because it improves muscular tone. Even exercises such as running are good because they make the patient stand up straight and make the patient breathe deeply, and give the patient a sense of well-being. This applies to other sporting activities including soccer, etc.

The first step is to get motivated! Unless the patient is motivated to do the exercises one is wasting his/her time. The best way to do this is to show them in front of a mirror how improving the posture improves the appearance of the chest.

### Exercise #1:

Sacrospinalis exercise: Hands are placed behind the head and the fingers interlocked. The elbows are pulled back (extended) as much as possible and the head & neck needs to remain straight. This posture causes the chest to fill out anteriorly. Once the posture has been properly attained, the patient then bends from the hips forward down to a horizontal position, holds it for a second or two and then straightens back up again. It is very important that during the exercise the elbows are maintained in the original position. Also, the neck should not be flexed during this procedure. In other words, when the patient reaches the horizontal position his/her spine should be a straight line and not flexed at the cervical (neck) region. The patient should do this exercise 25 times.

### Exercise #2

Strengthening of pectoralis muscles: A) The patient should do 25 push-ups. B) The patient lies on his/her back on the floor with his arms at right angles to his body. Place small weight in each hand and keep arms straight, bring them together in the midline. The patient should do this exercise 25 times.

### Exercise #3

Chest expansion: The patient breathes in as deeply as possible pulling shoulders back as he/she inhales. The patient holds breath for as long as possible with the chest pushed out anteriorly (forward). This should be done with the patient standing up straight and shoulders back. As the patient breathes in he/she should be encouraged to expand his chest into the “military” posture mentioned above. The patient should be encouraged to see how long he/she can hold their breath in this position. This exercise should be repeated 20 times.

Total exercise time should be no more than 10 minutes. The patient should be encouraged to perform these exercises immediately upon arising out of bed in the morning and prior to going to bed in the evening. An exercise program like this will not cure a severe degree of Pectus Excavatum. However, a poor posture will make even a mild Pectus look worse.