

Growing Pains: SI, Spondy, Scolio: It's the back Jack

This article is a continuation of the last issues article on growing pains and how to deal with them. The low back will be covered and how it can be affected by the body's natural growth patterns. The low back has many complicated joints. SI dysfunction, spondylolisthesis and scoliosis are an array of disorders that can affect the spine and the surrounding structures. The SI is short for sacroiliac. This joint is where the ilia (hip bones) attached to the sacrum (lowest vertebrae of spine). When we grow, these joints can become hyper mobile. When you add the mechanics of the game of soccer there can be havoc in this area. Symptoms can include low back pain, hamstring tightness or damage, hip flexor problems and unilateral para spinal pain and tightness. An evaluation of the hip bone rotation will dictate on how proceed. The ASIS (upper front hip bone) (see ASIS) is the best landmark along with the PSIS (upper rear hip bone) in determining which direction the hips are rotated. It is important not to let the SI stay out (rotated) for extended periods of time due to the long term tissue laxity compounding in future problems. Once the direction of rotation is identified, there are a variety of techniques to manipulate the hips into their neutral position. (*See SI Mob*) Identifying the direction is the hard part. Once the joint has been manipulated, ice should be applied to settle down the inflammation around the joint. The area will stay tender for a day or two depending on how long it was out. As the pain subsides, a series of exercise should be started to help stabilize the joints. This includes most of the core strengthening exercises. (*See Bridging Core*) Kicking the soccer ball with the non-dominant side will help balance out the anterior portions of the upper leg and hips. Females are more prone to this malady as their hips widen out during puberty or later during pregnancy. A small number of males are also affected. The secret to a healthy SI is a correct diagnosis from your sports medicine professional.

Spondylolisthesis can start as a minor pain along the lumbar spine. As it progresses the pain can become debilitating. Spondylolisthesis is a stress fracture

or subluxation of the spinal vertebrae. This is commonly known as an over use injury resulting from the pounding related to running sports (soccer being one). Many times an x-ray can not identify this problem so a bone scan or MRI is necessary. After the problem is correctly identified, all pain causing activities are stopped. Exercises are added as tolerated. Aquatic therapy is a good early stage exercise program. The player can add the elliptical trainer if tolerated. As the pain lets up, practice is added in graduated steps. Back braces can help by stabilizing the spine and, in turn, reducing the pain. Playing only on softer fields will help prevent Spondylo and shoe choice is also important. The new turf fields with the little black pellets and long grain grass should help. Shoes with a softer midsole will also relieve some of the pounding.

Scoliosis is another malady encountered in some adolescents. The common name is curvature of the spine. The vertebrae will curve one direction or the other and sometimes it will add a twist. If the curvature is too great, it can impinge on the lungs or heart. Exercises and therapy can correct the mild cases. External bracing will help most moderate cases. The extreme cases that may become life threatening will benefit with surgically implanted rods. An easy way to identify curvature is to bend over at the waist. Position yourself behind them and look down the spine. Anything over a mild case will be obvious. An x-ray will confirm the diagnosis and appropriate action will be initiated based on the severity of the curve. Treating symptoms make the person comfortable but it should be paramount to get rid of the cause of the symptoms for the best results.

Now you have the lowdown on the low back. Next issue will address getting back down to earth where we are firmly planted: the feet.