

# Sacroplasty

## Sacrum

The sacrum is the large, triangle bone that is situated between the base of the spine and the coccyx, also known as the tail bone. It is comprised of five united vertebrae and wedged between the two hip bones. **A Sacral Insufficiency Fracture is a fracture of the sacrum.** It may occur for many reasons and can be terribly painful.

Osteoporosis is the primary cause of sacral insufficiency fractures, but may also be due to weakening of the bone caused by high amounts of radiation to the pelvis; high steroid use; liver transplantation; anorexia nervosa; rheumatoid arthritis; osteopenia; Paget's disease; hip joint replacement; and lumbosacral fusion. Sacral insufficiency fractures may cause immobility from pain in the buttock, back, hip, groin and/or pelvis. This may result in inability to walk or walk slowly with pain.

Image of pelvis. Sacrum is in center.

**The first step to finding Sacral Insufficiency Fractures is to be evaluated by your physician.** A physical exam will be performed, as well as, general health questions regarding if an incident took place and what type of symptoms are present.

Traditional X-Rays are not good diagnostic tools for sacrum insufficiency fractures. Sacrum insufficiency fractures were traditionally difficult to detect beyond the pain in that area, but today they can be seen through a nuclear medicine bone scan using CT (Computed Tomography).

Nuclear medicine imaging is a subspecialty of diagnostic radiology that uses small amounts radioactive material to help to diagnosis and treat of disease. In other words, a small amount of radioactive pharmaceutical will be injected into the patient and then the patient will have a CT, also called a CAT scan, done to see where the concentration of the radioactive pharmaceutical landed within the body. If there is a fracture, the radioactive pharmaceutical will be located in that area.

## **Sacroplasty**

Traditional therapy for a sacral insufficiency fracture involves rest, pain medication and either crutches or a walker to help with walking. This treatment option normally takes about six months to a year to heal, but many fractures do not respond to this treatment option. If choosing this option, water exercise may be beneficial, as well as, support given by a corset.

One treatment option with much faster means of returning to normal activity is called a **Sacroplasty**. This is a minimally invasive procedure performed by an Interventional Radiologist. This procedure will take approximately an hour and is performed as an inpatient or outpatient procedure under a local or general anesthesia.

### **What Should I Expect?**

The procedure is performed with a CT scanner and a fluoroscopy "real-time" imaging. A nurse will help position you on the CT scanner on her stomach. The CT scanner assists the Interventional Radiologist with needle placement for the appropriate site to be repaired. The fluoroscopy gives the doctor a real-time view of the fracture to ensure that the cement is placed in the correct location. The cement typically hardens with approximately ten minutes. This creates an internal cast for the sacral insufficiency fracture and in turn may enable you to return to normal activity much quicker.

Following the procedure, you will be monitored for approximately twenty minutes in the procedure room. At that time you will be moved to a recovery, holding room to be observed for approximately two hours. Another CT scan will be performed at this point to ensure that the procedure was successful. Some patients have noticeable pain relief prior to leaving the hospital and others have improvement over the next two weeks.

### **After the Exam**

Once the sacral insufficiency fracture is resolved, other back or pelvic pain may show up that were already there though unnoticeable due to the pain of the fracture. Very rarely pain can arise if the cement is in a close area near a nerve root. If this were to happen it can be treated with either a series of selective nerve root blocks or epidural steroid injections.

