

Lumbar Stress Fracture

Stress fractures are the most common type of overuse injuries in the lower back for those playing sports. This condition is classified as a stress fracture for the lower back, however the term is confusing and the condition is more commonly known as a spondylolisthesis.

However, only here the story begins. If there is enough repetitive strain going through the spine, especially with the back extending (typically seen in gymnastics and trampolining), you can develop what is known as a pars defect. What is a pars defect? It's a small fracture to the pars which is like a small bridge in the vertebra. The other name for a pars defect is a spondylolysis.

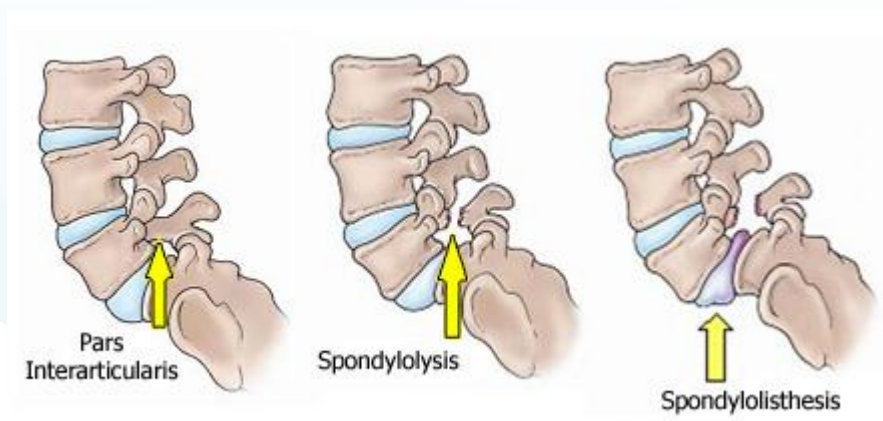
If a pars defect / spondylolysis occurs both sides of the vertebra, it is possible the vertebra will slip forwards slightly and this is a relatively common condition called a spondylolisthesis. If you are confused at this point, don't worry as it is quite complicated.

It tends to be quite common in growing children and the symptoms are often associated with a growth spurt. At the base part of the back, five lumbar vertebrae are located. The most common site for this condition is at the lowest part of the back at either L4 or L5. This is a typical stress point where the pelvis and the mobile lumbar spine meet. This is the area that tends to incur the most amount of stress when playing sports.

Lumbar Stress Fracture Anatomy

Understanding your spine and the manner in which it works will help you understand what is causing the pain in your lower back to begin with. Your spine is composed of multiple small bones (vertebrae) which are all stacked one on top of the other. Ligaments, muscles, intervertebral disks and nerves are the additional components of your spine.

The bones of the vertebrae connect to form a canal protecting the spinal cord. The column is composed of three different sections creating three distinct curves in the back: the curves within the neck area (cervical), the lower back (lumbar) and the chest area (thoracic). The lower part of the spine (coccyx and sacrum) is composed of the vertebrae that are fused together.



If you feel you have a serious back problem, you should really go for an MRI scan to assess the damage to the spine. But you should discuss this with your therapist or doctor.

The MRI will show the spondylolisthesis clearly if its present.

How to Treat a Lumbar Stress Fracture:

1. Non-Surgical Treatment

Initially, the treatment for this condition is always non-surgical. Refrain from participating in activities until you no longer experience symptoms. An anti-inflammatory medication can also help to reduce pain in the lower back. Physical therapy and a back brace might be recommended in certain cases. In the majority of situations, you can resume activities gradually without having to worry about a lot of complications. Strengthening and stretching exercises for pain can help to prevent any future pain occurrences.

2. Therapy

The most preferred method of treatment is physical therapy, osteopathy, sports rehab or chiropractic. The therapist will look for problems with your spine, and address muscle imbalance or stiffness in the joints. They will also advise on the results of any MRI scan, and give an idea on prognosis. They will likely do treatment to the back, and also rehab strengthening exercises to the core and the lower back.

3. Surgery

Surgery is becoming less common as surgeons realize the benefits of therapy, and because the procedure is both complicated and traumatic. However, if there is problems with a badly trapped nerve, or pain is uncontrollable, or the patient is not responding to therapy and injections, then surgery may be considered as a last case scenario. This will involve using a metal plate and a number of screws (between 4 and 6) which go through the vertebra to stabilize the joint. This is also known as a fusion. The fusion stops the instability which reduces inflammation and can help reduce back pain. However, rehab following this procedure can last several months in some cases.

Tips:

- Avoid prolonged periods of extension or arching your back, if you have this condition.
- Significant periods of rapid growth might encourage slippage of the back discs.
- Sports such as weight lifting, football and gymnastics place a significant deal of stress on all of the bones within the lower back. They cause the athlete to continually overstretch the spine.
- The condition can cause spasms in the back that stiffen the back and cause the hamstring muscles to tighten, which results in changes with gait and posture.
- Pain often spreads across the entire lower back and might feel like a strained muscle.