



## Working like a Dog Can Create a Scotty Dog Fracture

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Spondylolysis is a stress fracture in the pars interarticularis area of the vertebrae, or sometimes referred to as the “Scotty Dog”. A precursor to this condition is called a spondylolisthesis where the bone is initially weak at this area before it fractures. Although a spondylolysis can be caused from genetic factors, this type of fracture is most commonly seen in children and teen athletes as an overuse injury. Athletes who participate in gymnastics, football, weightlifting or any activities that create significant increase in lower back hyperextension (backward bending) are more prone to a stress fracture. This fracture is most commonly located at the L5 vertebral level (the base of the spinal column).



### Symptoms include:

- Increased pain with bending fully backwards into hyperextension
- Pain improves with rest
- Lower back pain
- Centralized tenderness
- Lower back muscle tightness or stiffness

### Diagnosis:

- X-ray (used to show the fracture line or any unusual gapping)
- Bone scan (used to detect a stress fracture when X-rays don't display it)

### Conservative Treatment:

- Anti-inflammatories, reduction in activity level, and avoidance of any over-stretching (hyperextension) or rotational activities.
- Physical therapy to work on core/trunk strengthening, lumbar stabilization, balance and proper posture and movement.
- Use of a back brace.

If conservative treatment doesn't work, then surgery is sometimes necessary.

If you suspect your child has a spondylolysis, please seek the opinion of a physical therapist, athletic trainer, or a physician. For more information about the condition, visit the Nebraska Spine Center's website at [www.nebraskaspinecenter.com](http://www.nebraskaspinecenter.com). Click on the Sports and Low Back Pain tab under the Spine Education section.