

# Back Pain

Approximately 50% of all children will experience back pain by the age of 15. Only about 20 percent of them will have a specific, structural reason for their pain. The remaining 80 percent have “mechanical back pain” usually related to muscle strain, fatigue or poor conditioning of the back muscles.

In order to determine the cause of a child’s back pain it is important to understand specific facts about the pain such as its nature, duration, and location, what things make the pain better or worse and any other symptoms that accompany it. Other symptoms could be fever, chills, pain in other areas of the body, weakness or numbness. Physical examination of a child with back pain starts with inspection of the back to check posture, alignment, and the appearance of the skin. Certain abnormalities of the skin or the surface of the back can be clues to underlying structural problems that can cause back pain.



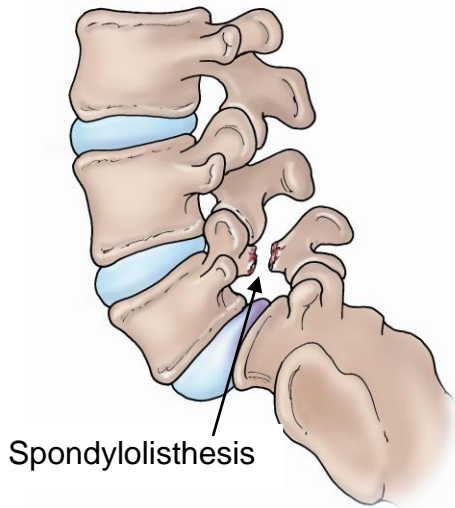
Most children who present with back pain will have an x-ray of the spine. Depending on the symptoms, physical exam and x-ray results, they may need to undergo further diagnostic testing. Common diagnostic tests for back pain include blood tests, bone scan, CAT scan, or MRI.

The potential causes of back pain in children fall into several categories. In children with a known injury to the back the most common cause of back pain is a vertebral **fracture** or injury to the ligaments of the spine. These may require immobilization with a cast, brace or surgery. Traumatic **disk herniation** in children is uncommon.

There are abnormalities of the spine and spinal cord which are present at birth but may not cause pain until later in life. These include diagnoses such as *syringomyelia*, *tethered cord*, and *diastematomyelia*.

Young children are prone to infections of the vertebrae (osteomyelitis) and the intervertebral disks (diskitis). Fever and swelling and redness of the back may occur with spinal infections.

Spondylolysis, spondylolisthesis and Scheurmann's kyphosis are all potential causes of back pain in adolescents. Spondylolysis is a stress fracture of the vertebrae and is most common in children who participate in sports that require repeated hyperextension of the back. Typical "at risk" sports are gymnastics, football, weight lifting, diving, and figure skating. Scheurmann's kyphosis is a condition characterized by an exaggeration of the normal forward curve of the upper part of the back. Children with this condition have slightly abnormally shaped vertebrae and the position of the back can result in pain. Other, less



common causes of back pain in children and adolescents include Juvenile Inflammatory Arthritis, Ankylosing Spondylitis, and a wide variety of tumors.

Treatment for mechanical back pain is usually aimed at improving the overall condition of the back muscles while decreasing the inflammation and pain resulting from strain and overuse of these muscles. **Non-Steroidal Anti-Inflammatory Drugs (NSAID's)** and physical therapy are often prescribed to achieve these goals. The physical therapist will help the patient work to improve back flexibility and strength and teach good body mechanics to help prevent future back problems. Narcotics, muscle relaxants, and prolonged bed rest are not used for the treatment of mechanical back pain.



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