



BACK PAIN IN YOUNG ATHLETES

 St. Vincent
Sports Performance Center

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Many athletes experience lower back pain at some time during their careers. Most of the time it's not serious and they quickly recover. However, there are times when lower back pain should not be ignored and a proper diagnosis should be made in order to receive the correct treatment.

Although back pain in athletes can be from many different reasons, such as muscle strains or ligament sprains, sometimes it can be from a small fracture or break in the weakest part of the vertebrae, called a spondylolysis.

In sports that require repetitive backward bending, such as gymnastics, there is a greater stress on the weak part the vertebrae. Over time this extra stress may eventually cause the vertebrae to fracture. The fracture does not have a quick onset, and pain is not severe at first, so many athletes assume it's not serious and normal training is resumed. Unfortunately, if the spondylolysis is not detected and properly treated, it can progress to spondylolisthesis (the forward slippage of the vertebrae), nerve damage, or disc degeneration. Any of these complications may require surgery, and a greater loss of competitive time.

Spondylolysis is more common in those younger than 20. In fact, one study even showed that nearly 50% of adolescent athletes with low back

pain are due to spondylolysis. Most likely this is because the adolescent spine is still developing and not as strong as an adult's. It can develop on one or both sides of the spine and it usually bothers the person most during backward bending.

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Training with back pain for too long can be detrimental. If a spondylolysis is present, aggravating stresses will cause it to get worse. “Persistent back pain in adolescents should not be ignored,” says Dr. Joel Kary, a physician with St. Vincent Sports Medicine and Team Physician for Butler University and Lawrence North High School in

Indianapolis.

“Any back pain lasting longer than 3 weeks should be evaluated. If symptoms such as fever or night pain are present then they should be evaluated sooner.”

Ideally, a sports medicine specialist (MD or DO) should be seen for the best chance at a correct diagnosis. Spondylolysis is a difficult diagnosis to make because many cases do not show on a regular X-ray. This results in many misdiagnoses and



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improper treatment. More extensive imaging such as an MRI, CT Scan, or a bone scan is often needed. Advanced imaging like this can also catch the precursor to the spondylolysis, called a stress reaction. Discovery of this before there's an actual crack in the bone will result in a quicker recovery for the athlete. "Early recognition of spondylolysis is very important because

back to competitive levels will vary greatly depending on how well healing occurs and the severity of the initial injury.

There are a number of things athletes can do to try to prevent spondylolysis and other causes of back pain. Facilities are available that specialize in the performance enhancement of athletes. Usually, they have qualified professionals

control," says Barnes. Here again, special exercises will be prescribed which target core muscles to build strength and help protect the spine during vigorous activities.

In addition to flexibility and strengthening, it is also very important to consume the proper amounts of food which promote good bone health. Active

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After the diagnosis is made, the exact treatment will vary depending on how far the injury has progressed. If it's in the stage of stress reaction, resting from normal training levels may be enough along with maintaining cardiovascular fitness, flexibility, and strength using non-aggravating methods. Beyond the stress reaction phase, a special brace and therapeutic exercises may be needed before returning to normal training. Bracing also may be required while gradually returning to normal training. The total amount of time it will take to get

who have expertise in injury prevention. Proper flexibility and strengthening is extremely important. "I commonly see gymnasts that compensate hip flexor flexibility with lumbar extension," says Darrell Barnes, LAT, ATC, CSCS, Performance Center Coordinator at the St. Vincent Sports Performance Center in Indianapolis. This compensation will put excessive pressure on the lumbar vertebrae and over time may lead to a spondylolysis. To combat this, Barnes will use certain exercises to stretch their hip flexor muscles well before and after training, in hopes of releasing the pressure on the vertebrae. "I also see many gymnasts with decreased glute activation and poor lower abdominal

adolescents should eat at least three servings of low-fat dairy products a day. Some examples of a serving include one cup of milk, a slice of cheese, or one cup of yogurt. If possible, dairy products should always be chosen over supplements since the body absorbs nutrients more efficiently from food sources.

Though back pain is relatively common among athletes, paying attention to the signs of a serious condition will pay off in the long run. Proper prevention strategies and seeking expert medical care when necessary are the keys to staying in the game. ✕