

Rudolph F. Taddonio, MD, is the Stamford Hospital Director of Orthopedic Surgery.

Back pain is incredibly common. While no one is happy to experience it, it seems especially worrisome when a child or teen complains of an aching back ... all the more so when he or she is an athlete. Is it a sign of a serious injury? Will the pain worsen? Will further participation be dangerous? Is the back pain likely to become a lifelong problem?

According to Rudolph Taddonio, MD, Stamford Hospital Director of Orthopedic Surgery, these are common questions and concerns – and valid ones – but in most cases, he's able to offer reassurance that the prognosis for a child or adolescent with back pain is good and there's nothing serious to worry about. "About 80% of the time the cause is a low back muscular strain that will go away with rest," said Dr. Taddonio. "It's the same complaint that just about all of us will have at some point over our lifetimes, run-of-the-mill back pain."

While he sees some patients who are still in grade school, Dr. Taddonio said back pain complaints become more common as kids get older and especially so among those who play certain types of sports. Here's an overview of typical scenarios:

#### Muscle Strain

The medical name for strained back muscles is "musculo-ligamentous strain," and it describes injuries of the soft tissue (muscles, nerves, ligaments, tendons and blood vessels) of the spine. "Kids can experience these muscular strains in lots of types of sports," said Dr. Taddonio, including gymnastics, hockey, basketball and football. "Usually the problem gets better overnight and doesn't require treatment."

#### Spondylolysis

Pronounced spawn-dee-low-lie-sis, this describes a genetic bone defect leaving a small marrow bone (called the pars interarticularis) in the spine vulnerable to fracture. Surprisingly this doesn't always bring discomfort – Dr. Taddonio said the actual fracture can occur in early childhood and only cause pain later, often because it is aggravated by sports that require frequent hyperextension of the spine, such as gymnastics, diving and wrestling. This can cause inflammation, which is what brings discomfort. Most of the time spondylolysis discomfort is eased with several weeks of rest and then core strengthening exercises, which allow the stronger abdominal muscles to take some of the stress off the spine. Sometimes, however, a back brace may be necessary for several weeks in order to allow the fracture to heal.

#### Spondylolisthesis

This condition (pronounced spawn-die-low-lis-thee-sis) is related to spondylolysis. It's a painful dislocation that occurs when one vertebra pushes forward over another one. According to Dr. Taddonio, this is the most problematic of these common complaints in that it can be the beginning of chronic back pain ... it sometimes requires surgery to resolve ... and some athletes need to stop playing the sport that aggravates the condition. However, he said, many kids do get better with conservative management – rest and pain relievers, followed by core strengthening when and if the pain subsides.

### Sciatica

Somewhat less commonly, student athletes may complain of back pain that is accompanied by tightness or shooting pain in the leg, said Dr. Taddonio. "This is sciatica (which refers to nerve pain) and it is sometimes seen in students who have spondylolisthesis or who also have scoliosis." Sciatica pain should be evaluated by a doctor.

### Q&A: Parents

- *Is back pain hereditary?*

Believe it or not, the answer is often yes – if a parent has suffered an acute stress fracture of the vertebra (spondylolysis), a child may have inherited that tendency. This means it becomes extra-important to engage in regular core-strengthening exercises to reduce the likelihood a student athlete will suffer back pain.

- *When does a child complaining of back pain need to see a doctor?*

If back pain disappears or even shows improvement overnight, it's probably safe to wait and see what happens for a few days. If the pain continues and especially if it grows worse, make a doctor's appointment and get an evaluation.

- *How do I know if back pain indicates a serious medical emergency?*

It's rare but if a child is injured and experiences any loss of sensation, numbness or tingling ... and/or he or she is unable to move an extremity ... or shows signs of instability in the neck ... these are signs of a medical emergency. Call 9-1-1 immediately.

### **Q&A: Coaches**

- *Are there exercises student athletes should do to prevent back injury?*

Core strengthening is important for young athletes, particularly those in certain sports including gymnastics, hockey, diving, wrestling and football and also, because there is a risk of falling, cycling, horseback riding and skiing.

- *If a student athlete complains of back pain, how long should he or she be sidelined before returning to play?*

It depends on the nature of the pain. As mentioned above, if the pain gets better overnight or in a couple of days, it's fine to resume play. If spondylolysis or spondylolisthesis is diagnosed, it's important to rest for a few weeks at least – and it is important get clearance from a doctor before competing. Core strengthening exercises may be required in the interim.

#### **Q&A: Students**

- *Should I be worried if I suddenly start experiencing back pain?*

You'll be lucky if you don't! About 80% of people suffer back pain during their lifetimes and playing a sport means you're at greater risk – but it also means you are healthier and your body will likely heal faster.

- *How do I know what's "significant" and what's just normal over-exertion?*

Lower back pain that falls into the category of uncomfortable and annoying is not usually problematic but if the discomfort prevents you from playing well, moving easily or continues to worsen, you need to see a doctor. Also, pay attention to pain that radiates down your leg or is sharp and sudden. And, as noted above, any loss of sensation is a sign of a medical emergency.

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