

# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Shirley, Dr. Choate & Dr. Glanville

## Research on Low-Back Pain in Children

*Most people consider low-back pain (LBP) an adults-only malady. But your doctor at Spinal and Sports Care Clinic wants parents to be aware that children are also susceptible to this potentially debilitating condition. LBP in children was, for many years, considered a rare condition. But in the last two decades, studies show that the prevalence of LBP in children is skyrocketing.*



Approximately 50 percent of all children will develop LBP at sometime in their lives, according to researchers in Canada. Of that number, nearly 15 percent will experience frequent or continual pain (*J Manipulative Physiol Ther* 2003;26:1-8).

Among a group of 622 children and adolescents — 326 females and 296 males, ranging in age from 11 to 19 — researchers in Tunisia discovered that LBP was responsible for 23 percent of school absenteeism and 29 percent of sports absenteeism. Even more stunning: LBP sparked psychological symptoms (including depression) in a whopping 75 percent of the youngsters (*Eur Spine J* 2005;14:331-6).

Another study shows that the prevalence of LBP among adolescents and adults throughout Europe is virtually identical (*Pain* 2003;103:259-68).

Your doctor at Spinal and Sports Care Clinic notes that the same instigators that lead to adult LBP often trigger LBP in children: misalignment of spi-

nal bones (vertebrae), poor posture, emotional stress, sports-related injuries and other trauma.

When spinal bones are misaligned, the resulting condition is known as **vertebral subluxation**. In addition to LBP, vertebral subluxations may lead to infantile colic, earache, headache, carpal tunnel syndrome and several other ailments. Your doctor at Spinal and Sports Care Clinic cares for patients suffering from vertebral subluxations with safe and gentle maneuvers known as **chiropractic adjustments**.

Read on to learn more about LBP in children — including its causes and how chiropractic can help.

### The Three D's

Degenerative disk disease (DDD), a form of arthritis, is a common cause of LBP and leg pain in children and infants. Yet researchers from the Saint Louis University School of Medicine note that traditional physicians do not typically recognize or diagnose DDD (*Mo Med* 2005;102:70-2).

Fortunately, your doctor at Spinal and Sports Care Clinic *does* know that DDD may onset at a much younger age — and is more prevalent than was once thought. This fact was highlighted at the 89th Scientific Assembly and Annual Meeting of the Radiological Society of North America.

After studying the magnetic resonance imaging (MRI) scans of 79 girls and

75 boys, researchers found degenerative changes in the spine “much earlier than we ever would have suspected,” explains Francis W. Smith, M.D.

Dr. Smith, lead author of the study, proposed that health-care providers revise their thoughts on when to begin preventive back care: suggesting it start prior to puberty.

Of the 154 children enrolled in the study, 14 had early evidence of bulging or tearing in the lumbar (lower) discs of the spine. Yet **none** of the 14 children suffered from lower-back or leg pain.

“Disc degeneration may alter the mechanical architecture of the back, predisposing to muscle and ligament sprains and strains, as well as arthritis of the spinal joints. This points out that disc degeneration is not necessarily associated with back pain and may begin in early childhood.”



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## Puberty

Researchers in Denmark noted a “highly significant trend” for increased puberty-related LBP among girls: particularly between the beginning of puberty and mid-puberty (*BMC Musculoskeletal Disorders* 2005;6:52).



Although the investigators were unable to identify a reason for the link between puberty and LBP, doctors conjecture that it’s all about the “growth spurt” that occurs during this time. They theorize that developing DDD soon after the phase of rapid physical growth increases the risk of recurrent adolescent LBP — and the long-term risk of recurrent pain into adulthood (*Spine* 1999;24:1316-21).

Fortunately, there is a wealth of scientific research that shows chiropractic care offers safe and drug-free relief from all forms of back and neck pain — regardless of the cause. Researchers in Canada tracked a group of 54 children with LBP (between the ages of 4 and 18) to determine the benefits of chiropractic care. In a period of 30 days, 82 percent of the youngsters reported that they were “much improved.” (*J Manipulative Physiol Ther* 2003;26:1-8.)

## Sports

Participating in sports is a wonderful way for children to acquire the exercise they need and learn valuable social skills, such as teamwork. Doing so, however, also ups the likelihood of accidents: including injury to the lower back.

A study included 57 child and adolescent soccer players — 35 boys and 22 girls — with a spinal condition called spondylolysis, which involves a separation of part of a spinal bone. Approximately half (43 percent) said their pain started after a high-velocity kick (*Am J Sports Med* 2005;33:1688-93).

Spondylolysis is one of the most common causes of back pain in children over the age of 10. It is thought to result from repetitive activity, beginning as a stress fracture before fully fracturing (*J Musculoskeletal Med* 2005;22:284-93).

In the study mentioned previously that involved 622 school children, two factors were associated with 95 percent of the chronic LBP: dissatisfaction with the height and comfort of their school chair and football playing (*Eur Spine J* 2005;14:331-6).

Researchers from Children’s Hospital in Boston point out that football players, in addition to being more susceptible to LBP, have a greater likelihood of developing DDD (*Curr Sports Med Rep* 2002;1:47-51).



Chiropractors often recommend that children modify — but not necessarily discontinue — their respective sport while receiving chiropractic care for LBP. According to an article in the *Journal of Rehabilitation Research and Development*, instructing patients with LBP to engage in daily aerobic exercise may help alleviate their condition.

## Psychological Predictors

Adverse psychological and social problems — in addition to pre-existing physical pain — are predictors of future LBP in schoolchildren, according to researchers in England. The researchers enrolled 1,046 LBP-free children, ages 11 to 14, in a year-long study to determine how emotions affect the body. The result? “Those who reported high levels of psychosocial [psychological and social] difficulties were more likely to develop low back pain than their peers.” (*Nurs Stand* 2003;17:10.)



## Other Conditions

Childhood LBP may also be a warning sign of a serious disorder, such as juvenile rheumatoid arthritis, muscular dystrophy, cancer and a plethora of other disorders. That’s why it’s important to never attempt to diagnose the cause of your child’s discomfort.

## Preventing Childhood LBP

If your child complains of LBP, or you notice a change in the way he or she walks, stands or sits, take it seriously and contact our office immediately to schedule an evaluation.

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