Back Pain in Children

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Back pain is a common complaint of adults. Most adults experience back pain at some time during their life. Most individuals over fifty years of age have degenerative changes in their low back. These degenerative changes predispose adults to develop back symptoms. Adults are exposed to different causes for back pain than children. For example, adults are more likely to develop a disc herniation, spinal stenosis, facet joint arthritis and degenerative slippage of a vertebra (spondylolithesis). Adults also heal slower and less completely than children and adolescents. Psychological and emotional issues which can have a big impact on back pain are less common in children than adults.

The incidence of back pain occurs less frequently in children and adolescents than adults. In fact, persistent back pain is very uncommon during the pre-teenage years. However, because of the greater weight of children \hat{e}^{TM} s backpacks in middle school and high school, chronic injury patterns are becoming more common. If a young child suffers from persistent back pain, he or she should be evaluated by a qualified healthcare professional such as a spine specialist immediately. The younger the child, the less likely they are to experience back pain. In the absence of known trauma or injury, a child with a backache should be evaluated for potential organic pathology. This is especially true if the child is 4 years old or younger. In children and adolescents back pain may be an early indictor of an underlying disease process. Younger children are less likely to experience an overuse injury than an adolescent. When children and adolescents are exposed to strain induced back injuries, they tend to be uncomplicated and heal quickly, often within 2-4 days.

Lingering back or neck pain should prompt an appropriate healthcare workup. If your child has developed back pain along with other symptoms such as a fever, bowel or bladder dysfunction, or sensory/motor problems your child should be seen by a qualified pediatric spine physician.

The exact incidence of back pain in children and adolescents is not known. Part of this is because most cases are not reported because they resolve quickly. The incidence of back pain gradually increases with advancing age. Unlike adults, children are rarely if disabled by their back pain. In many cases a cause for persistent back pain in children can be identified whereas the exact cause in adults is often a little more elusive. Tight hamstring muscles and weak abdominal muscles can contribute to back pain. Children and young adults often improve quickly after seeing a chiropractic physician for evaluation and treatment. Physical therapy or an exercise program, with hamstring stretching and abdominal strengthening, can also be beneficial.

In some children chronic back pain may be the first sign of arthritis. When arthritis involves the spine and extremities it may be referred to as a spondyloarthropathy. These children frequently describe being stiff when they first wake up in the morning. They may even $\hat{a} \in \hat{c}$ walk like an older person $\hat{a} \in ?$. One of the most common forms of systemic arthritis is rheumatoid arthritis. There is a juvenile form of the disease.

Low back pain can develop secondary to a problem in the back or it can arise secondary to a problem involving one or more organ systems. In the later pain may be referred to the back region. The presence of one or more of the following signs and/or symptoms in a child or adolescent warrants evaluation by a healthcare provider. Specialized diagnostic testing may be required.

- low back pain accompanied by pain in extremity joints (polyarthralgia);
- extremity numbness or tingling
- persistent low back pain followed by blunt force trauma
- low back pain and progressive malaise/fatique;
- pain which awakens the child from sleep;
- no improvement with the use of over the counter analgesics such as acetaminophen [Tylenol], or ibuprofen [Advil];
- progressive pain;
- fever;
- change in cognitive status;
- low back pain accompanied by abdominal or pelvic complaints;
- appetite changes;
- loss of bowel and/or bladder control;
- difficulty with gait;
- muscle incoordination or weakness.

Most low back symptoms in children or adolescents occur secondary to an uncomplicated musculoskeletal strain. This type of back pain usually improves with a few days with rest and the use of simple analgesics. When a more severe underlying cause is present such as a tumor or an infection, early diagnosis and treatment improves the outcome. Many primary care physicians will rely on referral to a spine specialist for a more comprehensive workup and expanded treatment program. Diagnostic assessment may include physical performance assessment (functional testing), electrodiagnostic testing (NVC, EMG), laboratory testing (e.g., blood tests), and diagnostic imaging studies (X-ray, CT, MRI, bone scan) to help diagnose the child's condition.

Like in adults back pain in children and adolescents can range from mild to incapacitating. The causes of back pain in children and adolescents can be classified into one of four primary categories which are 1) mechanical back pain, 2) developmental abnormalities, 3) inflammatory and infectious diseases and 3) neoplastic disorders (cancer). One of the most common developmental/structural causes of low back pain in younger individuals is spondylolysis and spondylolisthesis. Spondylolysis refers to a defect in the posterior part of the vertebrae whereas spondylolisthesis refers to slippage of a vertebra. Gynecological pain in adolescent girls such as dysmenorrheal with referral to the back can easily be overlooked. This possibility should be considered by primary care physicians and gynecologist. The following table acknowledges the most common causes of back pain in children and adolescents.