

Three Steps for Safe Backpack Use in Children

By Tyson Swigart

A recent study has confirmed what chiropractors have been telling parents of school age kids for years; too much weight in backpacks is a sure recipe for back injury. The most recent issue of the Medical Journal Spine studied the effects of backpacks on the lower backs of children. Spinal MRI's were conducted with various loads up to 12 kilograms of weight. Significant spinal asymmetry was noted with loads as small as 4 kilograms. In addition increasing loads were directly related to increased injury and back pain risk. Harmful pressure in the back can lead to a curved spine and strained muscles. Children in pain report difficulty concentrating in the classroom further complicating the back pain problems. Fortunately guidelines have been developed by the American Chiropractic Association and other groups to help lessen the risk of children and teenagers.

Strategies are recommended in regards to backpacks and the prevention of injury: 1) Proper loading and fitting of the pack. 2) Strengthening and stretching exercises of the back and shoulders and 3) Evaluation and treatment of injuries that are recurring or last longer than a few days. Utilization of these strategies will significantly lessen the risk of developing problems.

Proper loading and fitting of the backpack is the first and perhaps most important step in prevention. A pack should not be loaded greater than 10% of a child's weight. That means that an 80 pound child should not have more than 8 pounds of books and school supplies in their backpack. In addition, heavier objects should be closer to the back, while lighter objects are placed further away or in outside pockets. A backpack should have thick, cushioned straps in order to disperse weight at the shoulders. Last, remember that a backpack should be worn on both shoulders, not just slung over one shoulder.



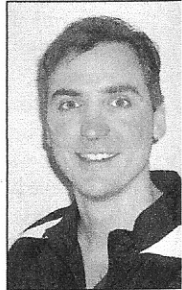
Stretching and strengthening the back and shoulder muscles are a simple and effective preventative strategy. Heavy backpack loads will put stress on neck and shoulder areas, as well as the chest and lower back. Stretching the chest muscles in a doorway or corner of a room will allow normal alignment of the spine and has the added benefit of keeping your child's posture. Strengthening the abdominal and lower back is safe and recommended for general pediatric health as well as back pain prevention. Ask your chiropractor or family physician for a recommendation.

Evaluation and treatment of pain that persists longer than a few days or is severe and recurrent is recommended. Typically treatment consists of massage, stretching and spinal adjustments to correct misalignments caused by excessive loading. Home care such as moist heat or ice is also typical. A good treatment plan will always include advice on prevention of future problems including many of the preventative tips given earlier. Children usually respond very quickly to treatment.

Now that school has begun, it is important to pay attention to the increasingly common problems associated with incorrect usage of backpacks. Prevention is the key. Recognizing a potential problem before it starts is paramount.



Dr. Tyson Swigart is founder and owner of **Southpointe Chiropractic and Fitness**. To make an appointment or for more information, you can reach **Dr. Swigart** at **(724) 873-0700**



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