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BECAUSE EVERY CHIROPRACTOR NEEDS A HAND.

The Backpack Dilemma: Function vs. Fashion

by Claudia Anrig, DC

Chiropractors, pediatricians and orthopedic surgeons alike agree that backpacks are a problem for a child's spine. While a backpack alone may not cause major problems, overloading and improper carrying of a backpack can lead to headaches, neck, shoulder, and lower back pain.

According to an article published in *Spine*, "Of the 1,122 backpack users, 74% were classified as having back pain, validated by significantly poorer general health, more limited physical function, and more bodily pain."

How Heavy Is Too Heavy?

While health care professionals do not agree on the exact weight, the consensus is that a child burdened with more than 10 percent of his or her body weight risks back and neck pain; and the majority of health care professionals agree that a child carrying more than 15 percent or more of his or her body weight can suffer from severe back, neck and shoulder pain, headaches and other spinal discomfort; not to mention aggravate pre-existing spinal conditions such as scoliosis.

How heavy is too heavy? Do your parent patients know that their 60-pound child should be limited to carrying no more than 9 pounds; the 80 pound child, 12 pounds; and the 100 pound pre-adolescent, no more than 15 pounds?

How Can Parents Lighten the Load?

It's important to have parents weigh their child's backpack at least once a week. If it exceeds the "15 percent" rule of their child's weight, the parents should be encouraged to work with their child to evaluate his or her backpack and determine how to "lighten the load." A backpack stuffed with that "extra" book, binder, electronic device or water bottle can easily add up to an unnecessary 10 pounds.

Proper Loading and Carrying

Parents need to show their children the importance of loading and carrying their backpacks appropriately. The heaviest items should rest against the back, which means loading them first and attempting to distribute the weight evenly.

While the child may think nothing of carrying his or her backpack slung over one shoulder, the truth is that this fashion statement is damaging to the developing spine. When carrying a pack on one side only, one shoulder is required to carry a burden that both shoulders and the back should be sharing equally. The only proper way to carry a backpack is with both straps over the shoulders and the backpack resting against the lower back.

Function vs. Fashion

Parents need to be educated that the first priority in purchasing a backpack is to select function over fashion. This request may be easier said than done. Our role as the family chiropractor is to inform parents that years of wearing a backpack in the 'fashionable' way can only lead to improper spinal alignment, poor posture, and eventually pain, for their child.

Encourage parents to meet a few criteria when choosing a better functional backpack: first, that the backpack fit properly (not too long or too short); and second, that it have wide, padded, adjustable straps (for proper positioning on the back).

A third option is to look for a backpack with a hip strap or lumbar pillow. The hip strap, when used, can distribute a portion of the weight to the hips, easing the load on the spine and shoulders. The use of a lumbar pillow will provide the necessary back support to the lumbar region, where the greatest portion of weight is being carried. When shopping, parents should consider that the more support features on the backpack they buy, the less spinal stress their child will carry.

Are roller bags the solution? Although one might think that the roller bag would be the answer to the problem - by taking weight off the child's spine and shoulders - it should be noted that an empty roller bag may weigh up to 80 percent more than an empty backpack. Furthermore, these bags run larger, inviting the owner to overload the extra space as much as 50 pounds. Although these bags will be rolled, don't forget that the student (and his or her developing spine) is still at risk when lifting the bag up or down stairs, stairs, or retrieving it from the back seat of the car.

So, as your parent patients are preparing their children to return to school, take a brief moment and educate the entire family about "function first."

Resources

1. *American Academy of Orthopedic Surgeons Bulletin*, December 1999;47(6).
2. Sheir-Neiss GI, Kruse RW, Rahman T, et al. The association of backpack use and back pain in adolescents. *Spine*, May 1, 2003;28(9):922-930.
3. Arnsodorff M. Mounting research on backpack use. *ICPA Newsletter*, May/June 2002.

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