



# Backpack Safety

*adopted from the American and California Chiropractic Associations*

Back pain is pervasive among American adults, but a new and disturbing trend is emerging. Young children are suffering from back pain much earlier than previous generations, and the use of overweight backpacks is a contributing factor, according to the American Chiropractic Association (ACA). In fact, the U.S. Consumer Product Safety Commission reports that backpack-related injuries sent more than 7,000 people to the emergency room in 2001 alone.

Many Doctors of Chiropractic have noticed a marked increase in the number of young children who are complaining about back, neck and shoulder pain when the question asked to parents is: "Do your children carry a backpack to school?" Almost always, the answer is 'yes.'"

This new back pain trend among youngsters isn't surprising when you consider the disproportionate amounts of weight they carry in their backpacks - often slung over just one shoulder. A recent study conducted in Italy found that the average child carries a backpack that would be the equivalent of a 39-pound burden for a 176-pound man, or a 29-pound load for a 132-pound woman. Of those children carrying heavy backpacks to school, 60 percent had experienced back pain as a result.

Preliminary results of studies being conducted in France show that the longer a child wears a backpack, the longer it takes for a curvature or deformity of the spine to correct itself. The question that needs to be addressed next is: "Does it ever return to normal?"

The results of these types of studies are especially important as more and more school districts - many of them in urban areas - do not provide lockers on the school premises, forcing students to carry their books with them all day long.

There are attempts to setting standards of limiting the backpack's weight to no more than 10 - 15 percent of the child's body weight and urging the use of ergonomically correct backpacks are possible solutions.

## What Can You Do?

The Chiropractic Profession offers the following tips to help prevent the needless pain that backpack misuse could cause the students in your household.

- Make sure your child's backpack weighs no more than 10 to 15 percent of his or her body weight. A heavier backpack will cause your child to bend forward in an attempt to support the weight on his or her back, rather than on the shoulders, by the straps.
- The backpack should never hang more than four inches below the waistline. A backpack that hangs too low increases the weight on the shoulders, causing your child to lean forward when walking.
- A backpack with individualized compartments helps in positioning the contents most effectively. Make sure that pointy or bulky objects are packed away from the area that will rest on your child's back.
- Bigger is not necessarily better. The more room there is in a backpack, the more your child will carry-and the heavier the backpack will be.

- Urge your child to wear both shoulder straps. Lugging the backpack around by one strap can cause the disproportionate shift of weight to one side, leading to neck and muscle spasms, as well as low-back pain.
- Wide, padded straps are very important. Non-padded straps are uncomfortable, and can dig into your child's shoulders.
- The shoulder straps should be adjustable so the backpack can be fitted to your child's body. Straps that are too loose can cause the backpack to dangle uncomfortably and cause spinal misalignment and pain.
- If the backpack is still too heavy, talk to your child's teacher. Ask if your child could leave the heaviest books at school, and bring home only lighter hand-out materials or workbooks.
- Although the use of rollerpacks - or backpacks on wheels - has become popular in recent years, the prevailing thought is that they be used cautiously and on a limited basis by only those students who are not physically able to carry a backpack. Some school districts have begun banning the use of rollerpacks because they clutter hallways, resulting in dangerous trips and falls.

### How and why parents check their children's backpacks

Because carrying a backpack that is too heavy can cause a child to have immediate and long-term back problems, the Chiropractic Profession urges parents of school-aged children to follow important safety tips for purchasing and using backpacks as they plan for their child's needs during the school year.



Experts recommend that students carry no more than 15 percent of their own weight in their backpacks, but as many as 55 percent of students exceed this limit. A 2004 study of 3,500 American students in California found back pain to be highly prevalent, severe, chronic and related to backpack weight.

Backpack injury is one health problem that can easily be avoided by following a few simple, preventive steps. The Chiropractic Profession recommends parents consult our 'Backpack Safety Checklist' or visit a doctor of chiropractic to help prevent childhood backpack injuries.

### Chiropractic Care Can Help...

If you or your child experiences any pain or discomfort resulting from backpack use, call your doctor of chiropractic. Doctors of chiropractic are licensed and trained to diagnose and treat patients of all ages and will use a gentler type of treatment for children. In addition, doctors of chiropractic can also prescribe exercises designed to help children develop strong muscles, along with instruction in good nutrition, posture and sleeping habits.