



The Wellness Family

Dr. Kramer Keeps You Informed

Function vs Fashion - Backpack Awareness

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

An article published in Spine journal stated, "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."

Heavy or Too Heavy?

The American Academy of Pediatrics recommends that a child's backpack weigh no more than 10 to 20 percent of the child's weight. While healthcare professionals do not agree on the exact weight, the consensus is that more than 10% of your child's body weight can lead to back and neck pain; and most healthcare professionals agree that 15% or more of their body weight can lead to severe back, neck and shoulder pain as well as headaches and other spinal discomfort; not to mention aggravating pre-existing spinal conditions such as scoliosis.

How heavy is too heavy? Did you know that a 60-pound child should be limited to carrying no more than 9 pounds; an 80-pound child, 12 pounds; and a 100-pound pre-adolescent should carry no more than 15 pounds?

Lighten the Load

It's important to weigh your child's backpack at least once a week. If it exceeds 15% of your child's weight, then work with your child to evaluate their backpack and lighten the load. The extra book, binder, electronic device or water bottle can easily add a hefty (and unnecessary) additional 10 pounds.

In a recent study by Consumer Reports, researchers visited several schools in New York City and found that kids in the 2nd and 4th grade were carrying about 5 pounds worth of homework and books. However, when kids reached the 6th grade, the load got much heavier. The average 6th grader was carrying a backpack that weighed over 18 pounds, with some carrying as much as 30 pounds and Consumer Reports suggests keeping the weight

of the backpack closer to 10% of the child's weight, if possible.

"Children can suffer low-back pain, too," says Dr. Orly Avitzur, a board-certified neurologist and medical adviser to Consumer Reports. "A heavy backpack is a strong contributor to low-back pain in children."

Proper Loading and Carrying

Take a moment to show your child or teen the importance of loading and carrying their backpack. The heaviest items should rest against the back, which



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means loading them first and attempting to distribute the weight evenly. Since many schools are requiring a child to have a laptop, it's important to make sure that it rests against the back, since it will clearly be the heaviest item in the backpack.

While your child or teen may think nothing of carrying their backpack slung over one shoulder, the truth is that this fashion statement is damaging to their developing spine; one shoulder is being required to carry a burden that both shoulders and the back should be sharing. 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

Your first priority, when purchasing a backpack, is to select function over fashion. This request may be easier said than done but years of using a fashionable but not functional backpack can only lead to improper spinal alignment, poor posture and eventually pain for your child or teen.

Second, when looking for a better, functional backpack, look for one that meets a few criteria; first, that the backpack fits properly (not too long or too short); and secondly, that it has wide, padded, adjustable straps (for proper positioning on the back). Girls and shorter children are more likely to have back pain from

backpacks, due to their smaller stature, so it's important to find one that fits well.

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 you need to know that the more support you buy, the less spinal stress your child or teen will carry.

Finally, look for backpacks that will support what you know your child will be carrying for school. For instance, if your child needs to carry a laptop, look for a backpack that has a laptop pouch or sleeve, as they will typically be against the back and help ensure that your child is loading their backpack properly. It is advised that you do not purchase a backpack that is just one big pouch as this will discourage proper loading by allowing your child to cram everything in quickly.

Roller Bags

Although one might think otherwise, roller bags are not the answer. Despite the fact that they are taking the weight off your child's spine and shoulders, it should be noted that an empty roller bag may weigh up to 80% more than an empty backpack.

Furthermore, these bags run larger, inviting the owner to overload the extra space with as much as 50 pounds. Although these bags will be rolled, don't forget that your child or teen (and their developing spine) are still at risk when they haul their bag up or down stairs or retrieve it from the back seat of the car.

So, as you prepare your child or teen to return to school, take a brief moment to educate them about "function" first.

The Chiropractic Factor

Watch your child as they put on their backpack, if the weight of the backpack is making them hunch over, it is probably overweight. Other symptoms of poor backpack loading or carrying include:

- Aching of the shoulders, neck or back
- Pain, tingling or numbness in the neck, arms or hands
- Weakened muscles
- Headaches
- Leaning to one side, backward or forward
- Red marks and creases on the shoulders
- Struggling to put on or take off the backpack

If your child is showing any of these symptoms, be sure to talk with your Family Wellness Chiropractor about a spinal screening to determine if an overweight backpack may have caused any spinal deviations.

Resources

For more information on the proper use of backpacks visit:
www.chiro.org/LINKS/backpacks.shtml
www.acatoday.org/Patients/Health-Wellness-Information/Backpack-Safety
www.backpacksafe.com

Backpack Weight Chart

Child's Weight	Backpack Weight
60 pounds	9 pounds
70 pounds	10.5 pounds
80 pounds	12 pounds
90 pounds	13.5 pounds
100 pounds	15 pounds
110 pounds	16.5 pounds
120 pounds	18 pounds
130 pounds	19.5 pounds
140 pounds	21 pounds
150 pounds	22.5 pounds
160 pounds	24 pounds



*Dear Patient,
Dr. Kramer is dedicated to providing you with the absolute best in family wellness care. So take a moment today to discuss with your Family Wellness Chiropractor any concerns you may have regarding your family's overall health and wellness.*

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