

Avoid school strain: Unstuff that backpack

By Judy Fortin
CNN

Story Highlights:

- ↻ 7,300 backpack-related injuries treated in U.S. emergency rooms in 2006
- ↻ Sprains and strains most common complaints
- ↻ Limit backpack load to 15 percent of kid's body weight to help avoid back strain

ATLANTA, Georgia (CNN) -- By the second week of fifth grade my son Christopher's backpack already weighed 27 pounds. I know because we put it on the bathroom scale. A thick binder, two textbooks, a novel and miscellaneous supplies create a heavy burden for a 10-year-old who weighs only 77 pounds.

Christopher hasn't had a sore back -- maybe because he has a rolling pack -- but many others his age aren't so lucky.

The Consumer Product Safety Commission reports that 7,300 injuries were treated in U.S. emergency rooms in 2006 because of backpacks. Sprains and strains were the most common complaints.

"We see quite a few children with [back pain](#) during the school year," says pediatric orthopedist Robert Bruce of the Emory School of Medicine. "Many attribute their back pain to heavy book bags."

The American Occupational Therapy Association recommends that children carry no more than 15 percent of their body weight. In other words, a 100-pound child should not wear a backpack that weighs more than 15 pounds.

"I put backpack problems into the 'overuse injury' category," Bruce explains. "You have a child who is doing something that is overusing, overstressing or overstraining their body."

While not all children will complain about soreness, some signs of injury include pain when wearing the backpack, tingling or numbness, red marks and struggling when putting on or taking off the bag.

With an estimated 40 million American children toting book bags, Bruce believes the number of reported injuries is "only the tip of the iceberg." Many kids are seen in a pediatrician's office or not treated at all.

Bruce counsels his patients on proper backpack wear and ergonomics. His advice often starts with getting the right type of bag.

"I think rolling book bags are a terrific idea for a slighter build or smaller child," he says. But he notes that not all schools allow them.

The occupational therapists group recommends getting a pack that is the appropriate size for the child and making sure has well-padded shoulders straps.

"Certainly, wider straps, straps that distribute force over the shoulders, over a greater area, are safer," Bruce says. Waist belts also help distribute the weight of the bag.

The therapists say the bottom of the pack should not rest more than four inches below the child's waistline. Try loading the heaviest items closest to the child's back and arranging materials so they won't slide around.

Bruce tells some of his patients to request a second set of textbooks so they don't need to be carried between school and home. Another solution, Bruce suggests, is asking teachers whether the student can make more frequent trips to a locker to avoid carrying around an entire day's worth of books.

Bruce offers one final piece of simple advice: "Check that backpack on a regular basis. They are typically full of unnecessary items. ... I think if you went through the backpacks, you could shed 10 pound just like that."

It's still too early in the school year for my son to have accumulated that much extra junk in his book bag, but I did follow the advice of the experts by splurging on the rolling pack. I've also been giving him a hand lifting it into the car at the end of the school day.

I wonder if there are any statistics on parents who hurt their backs lifting these bulky bags?

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Back pain

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Judy Fortin is a correspondent with CNN Medical News.