

Oh, My Aching Back!

(and other complaints you shouldn't hear from your school-aged child)

By Vicki Wilson

Scraped knees and bee stings. Sprained ankles, bloody noses, burned fingers. These are the injuries of childhood. We had them, and now we're treating our children for them.

But aching backs, stiff necks, carpal tunnel syndrome – these ailments are chiefly reserved for the post-grad school set, right? Well, according to some pretty extensive research published in several respected medical journals, these problems are now the domain of school kids across the nation and around the world. The culprits? Heavy backpacks and ergonomically incorrect computer furniture in schools, just for starters.

“Backpacks that weigh nearly as much as the children carrying them and classrooms that don't fit the students using them are causing an epidemic of chronic pain in the shoulders and back of American children,” says Professor Karen Jacobs, one of America's leading authorities on school ergonomics and former president of The American Occupational Therapy Association, Inc. (AOTA).

And occupational therapists really ought to know. You may not know this, but federal law mandates the assignment of occupational therapists to public schools to work with kids with all sorts of disabilities, from children who struggle with handwriting to those with much more complex disabilities. While these professionals are on premise, it's only natural that they would notice how the environment affects kids, and how it makes it increasingly difficult for them to be successful at their occupation: being a student. Over time, whenever occupational therapists shared information, it became more and more evident that backpacks and desks were creating all kinds of health problems for students.

“Because we're in the classroom, we can see trends,”

says Jacobs. “We could see the indentations backpack straps would make in kids' shoulders, and how they would rub their eyes and necks when working at the computer.”

Overstuffed backpacks are something we've been hearing about for a while. But you may not have considered the desk, chair, keyboard and mouse your children use when they avail themselves of the technology many schools are chasing. While lots of attention may be paid to acquiring state-of-the-art computers, equal weight should be given to what the equipment sits upon.

According to Jacobs, children experience their largest growth spurt during the sixth through eighth grade time frame. Children's height at this age can differ by nearly two feet. But, too often, kids of all shapes and sizes are pulling up to the exact same desks. Plus, once they sit down at the computer, they are often there for too long without a break. “Kids need a stretch break every 20 to 30 minutes,” says Jacobs, reminding parents to make sure this happens at home during homework time as well.

Even keyboard position makes a difference. Tilting keyboards slightly away and downward is most effective in keeping the wrist in a neutral position. And Jacobs warns against long-term use of laptops, which were designed for short-term use, as in business travel. A laptop is not the best choice for a primary computer because of the positioning of the keyboard and monitor. Jacobs recommends limiting their use to no more than one hour per day.

So, what to do? The AOTA has gone further than identifying the problems; they've come up with all sorts of recommendations to combat them. Their ideas include:

- Reduce the weight in children's backpacks to 15 percent or less of their weight and educate them on the risks of carrying too much weight and the proper way to pack and wear their backpacks. For example:
 - Load heaviest items closest to the child's back.
 - Arrange books and materials so they won't slide around. If the backpack is too heavy, take a book out and carry it separately.
 - Wear a backpack's waist belt when available.

- Adjust the backpack so the bottom of it rests in the curve of the back.
- Ask students to critically examine what they are carrying in their backpacks and remove some items to lighten the load.
- Explore what can be done on a physical level, such as providing lockers or cubicles where books, supplies and athletic equipment can be safely stored.
- Urge teachers to consider the total weight of each day's class work, not only in educational content, but also in terms of textbook weight.
- Look at alternative methods of providing course information if your school has the resources, such as posting materials and subject information online.
- Get involved in school equipment purchasing. Chairs and desks should fit students of different sizes, or be adjustable to expand as children grow.
- Place computer monitors at eye level to avoid neck and shoulder strain. Computers resting on flat tables or desktops should be raised- recycled phone books are great for this- to be at the proper height.
- Give students stretch breaks to decrease continuous pressure on spines. Consider installing ergonomic software programs that periodically provide gentle reminders to students to take breaks.
- Feet should be resting on the floor to avoid back strain and pressure that disrupts

circulation, another opportunity to recycle those old phone books!

The issue of overweight backpacks was so serious that the American Occupational Therapy Association declared September 25th "National Backpack Awareness Day." The event was designed to educate parents, school officials and students about proper ways to select, wear and pack school backpacks. Occupational therapists in schools across the country held "weigh-ins" to demonstrate the risks of injury resulting from carrying packs worn improperly.

"Up until now, more attention has been paid to ergonomics in the workplace than in the classroom. Research is just beginning with kids," says Jacobs. "Parents realize intuitively that there's a problem, and it's a lot easier to prevent problems than to try and treat them after the fact. Plus, children lose productivity if they're hurt."

It makes sense that this advice is coming from occupational therapists, a group of professionals who, according to their association literature, teach "skills for the job of living." And when it comes to kids, being able to tote their school books and work safely at their computers has to be "job #1."

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