

BACKPACK SAFETY

This school year your kids will be tackling some weighty subjects – calculus, physics, world history... backpacks. Health experts warn that the heaviest load your child carries this year might not be in the classroom, but on his back.

Overloaded backpacks can cause a myriad of temporary and permanent damage to a child's back, according to The American Academy of Orthopaedic Surgeons. Although the academy recommends that a child's backpack weigh no more than 15 to 20 percent his body weight, studies have found that many teens carry up to 40 pounds in their backpacks.

Injuries that too-heavy backpacks can cause

The long-term effects of carrying an overloaded backpack include permanent injury to the spine, muscles and joints. Toting heavy backpacks also can lead to severe back, neck and shoulder pain, as well as posture problems.

Studies have shown that children in Pre-K through 9th grade experience unhealthy changes in posture due to overloaded backpacks. Most of the damage occurs when the child compensates for the weight by arching the back, bending forward, twisting, or leaning to one side.

How to know if your child's backpack is too heavy

Watch for the following signs that your child's backpack is too heavy:

- Change in posture when wearing the backpack (such as leaning forward to balance out the weight)
- Struggling when putting on or taking off the backpack
- Complaints of pain and headaches when wearing the backpack
- Tingling or numbness in limbs and extremities
- Red marks on the neck/shoulder/armpit area where the straps hit the body

Tips for safe backpack use

The American Academy of Pediatrics, the American Academy of Orthopaedic Surgeons, and the American Physical Therapy Association recommend the following techniques for safe backpacking:

- Choose backpacks with wide, padded shoulder straps, as narrow straps can dig into shoulders resulting in pain and restricted circulation.
- Use both straps in order to equally distribute the weight and promote better posture. Slinging the backpack over only one shoulder using a single strap causes one side of the body to bear the brunt of the weight.
- Wear the backpack over the strongest mid-back muscles. The backpack should rest evenly in the middle of the back near the child's center of gravity. Tighten the straps so that the backpack does not extend below the lower back.
- Organize the contents of the backpack by placing the heaviest items closest to the back.
- Consider purchasing a second set of books for the student to keep at home.
- Instruct your child place the backpack out of harms way – not in the middle of the hall or in aisles where others can trip over it.

As the experts weigh in on rolling backpacks, they've found a "mixed bag."

Backpacks with wheels are a good option for elementary school children who do not change classes. However, for older students who walk through hallways and need to go up and down stairs, wheeling packs could be more hazardous than helpful.

According to the American Academy of Pediatrics, rolling backpacks tend to be larger and heavier than regular backpacks, and are difficult to get up and down stairs and curbs. In addition, they pose tripping hazards in crowded hallways and staircases.

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