[IMAGE]

More Evidence: Improper Backpack Use May Cause Back Pain

An increasing amount of evidence suggests that carrying heavy backpacks may lead to low back pain in children and adolescents. The exact reason for this remains unclear, but some scientists have theorized that a backpack laden with books, supplies and other implements places an undue amount of stress on a child's spine, resulting in occasional, sometimes intense pain. Few studies, however, have examined the way children wear backpacks and what specific effect that can have on the spine.

In a recent study, investigators in Greece examined over 1,200 children (ages 12 to 18) who used backpacks at school. Researchers asked each child if they experienced back pain while carrying their backpack to and from school and during holiday periods, along with other questions about their participation in sports, how they traveled to and from school, and the amount of time it took to travel from home to school and back. In particular, children were asked about whether they carried their backpack with one strap over one shoulder or with straps over both shoulders.

Among the study's results:

- Carrying a backpack over only one shoulder caused the student to raise his or her backpack-bearing shoulder and shift the upper body in the other direction.
- As a result, students who carried backpacks slung over one shoulder were more than four times as likely to experience high-intensity pain than students who carried backpacks with weight distributed evenly across the upper back.
- While there was no association between time spent carrying backpacks and back pain during the school period, there was "a significant correlation" between time spent at school and back pain during holiday periods. The authors of the study believe this is due to a possible "delayed response" to the stresses applied to the spine during the school periods.

To learn more about factors that can cause childhood back pain (and the short- and long-term consequences), visit <u>www.chiroweb.com/find/archives/pediatrics/backpain</u>

Reference: Korevessis P, Koureas G, Zacharatos S, et al. Backpacks, back pain, sagittal spinal curves and trunk alignment in adolescents. *Spine* 2005;30(2):247-255.

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