

# Recommendations for Backpack Safety

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## Backpack Facts

It seems as though more and more students are using backpacks to carry their books, food, sporting gear, and any other items they may need throughout the school day. Using a backpack is an excellent way to tote these items. However, if the backpack is too heavy or improperly worn, it can lead to injuries to the back and shoulders. The Health Team at H.C.O.E. offers some guidelines on how to properly wear a backpack and avoid injury.

A backpack may be your best choice for carrying your school items especially compared to a briefcase or shoulder bag. If the backpack is properly worn, it is supported by the body's strongest muscles. These muscles stabilize the body and keep it in good alignment, and are best used for carrying heavy loads. They are stronger and have better endurance than the muscles in the arms.

If the backpack is improperly worn, it can cause chronic pain and bad posture in students, especially those who are still growing.

Perhaps the pictures and descriptions here will help you wear your backpack properly, and avoid injury.

**WRONG:** (left) Strap on only one shoulder.

**CORRECT:** (right) Wide, padded straps on both shoulders.



**WRONG:** (left) Load too heavy.

**CORRECT:** (right) Load no more than 10-15% of body weight.



### **Wear Both Straps**

Wearing a backpack on one shoulder can cause a person to lean to one side in order to handle the uneven weight. Over time, this can cause excessive stress on upper and lower back, neck, shoulders and even functional scoliosis.

### **Proper Weight**

Students seem to be carrying heavier loads. Books, after school clothing, and laptops are heavy contents. Even when worn properly with both straps, leaning forward to compensate for the weight can affect the natural curve of the spine. A good rule to follow is keep the weight at 15 to 20 percent (or less) of the person's body weight.

### **Backpack Style or Type**

Make sure the backpack has wide straps. Narrow straps can be painful on the shoulder and press on nerves and blood vessels. Backpacks with waist belts are preferred. This helps to distribute the weight of the backpack more evenly. Backpacks with only one strap are not recommended. The weight of the backpack when empty is also to be considered. Ex: Canvas is lighter than leather.

For more information, visit the American Physical Therapy Association Web site at [www.apta.org](http://www.apta.org)

### **Backpack Helpful Reminders**

1. Use both straps
2. Make frequent locker stops
3. Avoid carrying all books at one time
4. Leave unnecessary items at home
5. Lift backpack correctly by bending at the knees and lifting with your legs
6. Inform your parents or nurse of any pain or discomfort.