

Backpack Safety

Backpacks are a popular and practical way for children and teenagers to carry schoolbooks and supplies. When used correctly, backpacks can be a good way to carry the necessities of the school day. They are designed to distribute the weight of the load among some of the body's strongest muscles.

However backpacks that are too heavy or are worn incorrectly can cause problems for children and teenagers. Improperly used backpacks may injure muscles and joints. This can lead to severe back, neck, and shoulder pain, as well as posture problems. Share these guidelines to help your family use backpacks safely.

Choose the right backpack. Look for the following:

- **Wide, padded shoulder straps** – Narrow straps can dig into shoulders. This can cause pain and restrict circulation.
- **Two shoulder straps** – Backpacks with one shoulder strap that runs across the body cannot distribute weight evenly.
- **Padded back** – A padded back protects against sharp edges on objects inside the pack and increases comfort.
- **Waist strap** – A waist strap can distribute the weight of a heavy load more evenly.
- **Lightweight backpack** – The backpack itself should not add much weight to the load.
- **Rolling backpack** – This type of backpack may be a good choice for students who must tote a heavy load. Remember that rolling backpacks still must be carried up stairs. They may be difficult to roll in snow.

To prevent injury when using a backpack, do the following:

- **Always use both shoulder straps.** Slinging a backpack over one shoulder can strain muscles. Wearing a backpack on one shoulder may increase curvature of the spine.
- **Tighten the straps** so that the pack is close to the body. The straps should hold the pack two inches above the waist.
- **Pack light.** The backpack should never weigh more than 10 to 20 percent of the student's total body weight.
- **Organize the backpack** to use all of its compartments. Pack heavier items closest to the center of the back.
- **Stop often at school lockers**, if possible. Do not carry all of the books needed for the day.
- **Bend using both knees**, when you bend down. Do not bend over at the waist when wearing or lifting a heavy backpack.
- **Learn back-strengthening exercises** to build up the muscles used to carry a backpack. Ask your pediatrician for advice.

Parents also can help in the following ways:

- Encourage your child or teenager to tell you about pain or discomfort that may be caused by a heavy backpack. Do not ignore any back pain in a child or teenager. Ask your pediatrician for advice.
- Talk to the school about lightening the load. Be sure the school allows students to stop at their lockers throughout the day. Team up with other parents to encourage changes.
- Consider buying a second set of textbooks for your student to keep at home.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.