

The ABC's of Backpack Safety

Did you know that... *"A child wearing a backpack incorrectly or that is too heavy can be contributing risk factors for discomfort, fatigue, muscle soreness and musculoskeletal pain especially in the lower back"*- Karen Jacobs, EdD, OTR/L, CPE.

Help to ensure children are selecting and using their backpacks correctly. Teach them to be part of the process and set them up for success even before that first day of school!



Tips for Purchasing a Backpack

- **Appropriate Size** – Ensure the height of the backpack extends from approximately 2 inches below the shoulder blades to waist level, or slightly above the waist.
- **Balanced Shoulders** – Backpacks should have well-padded shoulder straps that can be worn on both shoulders so when packed with books, the weight can be evenly distributed.
- **Children Grow** – Just as your child will try on clothes and shoes when back-to-school shopping, it is important to try on backpacks too.

Common Mistakes

- ❌ Purchasing a backpack that is too large for the child
- ❌ Overloading the backpack
- ❌ Improperly loading the backpack
- ❌ Not wearing the backpack correctly

Tips on Ensuring Proper Fit

- ✓ The backpack should fit comfortably between the top edge of the shoulders down to the lower part of the back. A good way to locate where the bottom of the backpack should sit is to find the top of the hipbone and then follow this line around to the backbone. The backpack should sit along this area, not at the top of the back or lower on the buttocks.
- ✓ The shoulder straps should be well padded and shaped so that they are wider over the shoulder and narrower as they pass under the arms.
- ✓ A wide hip belt will help distribute the packing weight better than a narrow one. A hip belt also keeps the weight closer to the body and helps to steady the load. Some backpacks also have a sternum strap for additional support and distribution of carrying the load.
- ✓ For students carrying a lot of textbooks, binders or a laptop, look for backpacks that have a foam-padded panel that goes along the center of the pack. This will prevent sharp edges from digging into the child's back. If the load is consistently expected to be greater than 3.5-4.5kg (8-10 lbs.), consider purchasing a backpack that has a basic internal aluminum frame.
- ✓ For children who are younger (between the ages of 3 and 11) or who are smaller in size, child-sized versions of backpacks will give a better, more comfortable fit.



Signs Your Child's Backpack is not the Right Fit:

- Complaints of aching in the shoulders, neck and back
- Red marks and creases on the shoulders
- Complaints of tingling or numbness in the arms or hands
- Any change in side-to-side posture while wearing the backpack
- Difficulty when putting on or taking off the backpack

Suggestions for Proper Use:

- **Do not over pack!** The weight of the pack should not exceed 10-15% of the child's body weight. The 10% ratio is a guideline for elementary school children, and the 15% range can be used with junior and senior high school students.
- **Utilize different compartments and pockets to distribute weight.** Place heavier items closer to the back centre of the backpack. Lighter items in the front and sharp items away from the back.
- **Use larger leg muscles** when picking up your backpack. Bend and lift in the knees instead of the waist to prevent back injury. If the pack is too heavy, consider using one on wheels.
- **Use both straps.** Wearing a backpack over one shoulder can cause back problems and muscle strain.
- **Fasten the hip belt.** Adjust the straps and buckles so the weight is evenly distributed between the shoulders and hips
- **Keep it simple.** Pack only items that are absolutely necessary.

Other Considerations:

- Backpacks made of coated, rip-resistant nylon are very durable, and are easy to clean by wiping them down with a damp cloth or brushing them off. Nylon fabrics hold up in all types of weather, whereas canvas bags get heavy when wet, and plastic or polyvinyl packs can crack over time and in cold weather.
- Look for sturdy zippers and clips, neat stitching, durable straps, and reinforced stress points (e.g. stabilizing materials used at the attachment point of straps, double stitching of seams). Another important safety feature is reflective materials on the backpack and the straps.
- A strong top loop or handle allows for carrying by hand, and makes it easy for a child to hang the pack on a coat hook or in a locker. This handle helps the wearer to safely take the pack on and off.
- A large u-shaped or panel opening allows the student to easily and securely load the backpack. Top loading backpacks may be more difficult to load with large items, and the items may shift inside more than with the panel-type backpacks.
- To ensure the best fit, have the child try the backpack fully loaded. Fill the backpack with a weight that is equivalent to the books, materials and equipment that would normally be carried and then check fit and comfort.

Caregivers are encouraged to make backpack selections along with their children... make it a fun, family event! This motivates children to take a keen interest in their own physical health and well-being!