

## Backpacks – Pack it Light, Wear it Right

Many issues can occur if backpacks fit improperly, are too heavy, or are worn incorrectly. Parents can help children buy and wear the proper backpack to avoid health problems.

Signs of a Poorly-Fitting Backpack:

- Complaints of aching or pain in the shoulders, neck, or back
- Red marks and creases on the shoulders
- Complaints of tingling or numbness in the arms or hands
- Hunched-over posture with the head down or forward
- Leaning to one side when walking
- Clumsy walking, tripping or stumbling, difficulties going up stairs
- Signs of “hard work” (e.g. heavy breathing, flushed face, slowing down, complaints of tiredness or feeling weak)



Loading a Backpack:

- Do not overpack! Only pack the items you need. Clean backpack out at the end of every day.
- Pack by weight, not by size. Place heavier items on top and along the back of the pack (i.e. closest to the child). This puts the greatest amount of weight higher up on the back and closer to the body.
- An elementary school child should not carry more than 10 to 15% of their body weight. For example, a 27 kg (60 lbs.) grade primary student should carry no more than 2.5 kg (6 lbs.).
- Use your larger leg muscles when picking up your backpack to prevent back strain. Some children find it helpful to place the backpack on a chair or table (depending on the child’s height), before placing it on their back. If the pack is too heavy, consider using one on wheels.
- In older grades, ask about two set of text books (one for home) to eliminate bringing back and forth each day.



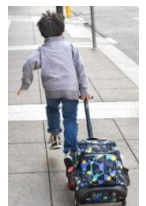
## Choosing and Wearing a Backpack:

- Both shoulder straps should be worn. Wearing a backpack over only one shoulder can cause back problems and muscle strain.
- Shoulder straps should be at least 2" wide well padded, adjustable, and shaped so they are wider over the shoulder and narrower under the arms.
- Adjust the shoulder straps so the bottom of the pack sits 2" above your waist, in the curve of the lower back.
- A padded back helps prevent the contents from digging into the child's back.
- Fastening a wide waist and chest belt helps to distribute weight evenly and keeps the weight closer to the body. A chest clip also helps shoulder straps from sliding off.
- A child-sized backpack will give a better, more comfortable fit for children between the ages of 3 and 11 or who are small.
- Keychains (rings) can be added to zippers to make them easier to open.
- Reflective materials make a child more visible at night.
- Reduce the number of pockets.
- A strong handle allows for carrying by hand or hanging on a hook.
- Large U-shaped openings, as opposed to an opening for a top loading backpack, allow a student to load the backpack easily and securely.
- To ensure the best fit, have the child try the backpack on fully loaded before you buy!



## Other options:

- Rolling Bag - Good for heavy loads to reduce neck, shoulder and back strain
  - Handle should extend long enough to avoid bending/twisting to use it
  - Wheels should be large enough to keep the bag balanced when pulling
  - Consider terrain (bumpy sidewalks, floors, stairs that the child would then have to carry, ease of getting on/off bus)
- Sling Bags - Distribute weight evenly in the most stable part of the back
  - Consider for children who have difficulty with the use of one arm (e.g. hemiplegia)



- Wheelchair Backpacks and Wheelchair Tote Bags - watch the weight, it can move the center of gravity. Ask your Occupational Therapist about best options for an accessible wheelchair backpack.



- Walker Bags/Walker baskets – Watch the weight!



- To reduce frequency of carrying a backpack, younger grades can use cubby or hook in the hallway and older grades should be encouraged to use their lockers.
- Avoid Messenger Bags
  - Hard to get on/off properly without awkward positioning
  - Uneven load distribution (hard to keep load close to body)
  - Carried too low on hips/legs



Fit the backpack to the child and not the child to the backpack!  
Unique children can require unique solutions, just ask us!

*This information has been adapted from: Backpacks: Beasts of Burden, Alberta Association of Registered Occupational Therapists [www.OTworks.ca](http://www.OTworks.ca); Backpacks: Causing a pain in the back?, Canadian Physiotherapy Association; Backpack Strategies for Parents and Students, The American Occupational Therapy Association, Inc.*