

# Backpack safety

A backpack is a back-to-school essential for most teenagers. An incorrectly used backpack dramatically increases a teen's risk for musculoskeletal problems and pain. Heavy backpacks can cause pain from:

- Muscle strains
- Muscle tightness
- Postural imbalances

## Who is most at risk for shoulder and back pain?

- All children, adolescents and teens.
- Those diagnosed with spinal ailments, including curves of the spine (scoliosis/ kyphosis) and stress reactions of the spine with or without a forward slip (spondylolysis/ spondylolisthesis).

## How can you prevent backpack injuries?

- The American Academy of Pediatrics recommends a backpack not weigh more than 10 to 20 percent of the teen's body weight. If the teen reports pain, always keep it below 10 percent of their body weight.
- Put heavier items closer to the teen's body in the backpack, so it does not pull it away from their spine.
- Parents should routinely pick up their teen's backpack to check its weight.
- If your teen's backpack is heavier than advised, have them carry some items to even out the weight on the body.
- Wear a backpack with one strap on each shoulder, not hanging off one shoulder. Use the hip strap if the backpack has one.



- Have a correctly sized backpack. The backpack is too big for a child if:
  - the straps are tight, or
  - the bottom of the bag rests lower than the hip line.
- The backpack's straps should fit snugly over the teen's shoulders.
- Make sure the backpack position is literally on the back—between the shoulders. It should not rest on the teen's lower back or hips.
- If your teen has pain in their shoulders, neck or back, it is time to make changes. These changes may need a doctor's note.
  - Use a backpack with wheels.
  - Ask the school to provide a set of books at school and a set at home.

## When is it time to see a doctor?

Teenagers should not have back pain. If a teen is having back pain, make an appointment with your doctor.

This handout is for information purposes only. It does not replace medical advice from a qualified doctor or physical therapist. Cook Children's Medical Center will not be responsible for any harm or injury resulting from interpretation of the materials.