

IUPUI
**OFFICE OF ENVIRONMENTAL
HEALTH & SAFETY**
INDIANA UNIVERSITY-PURDUE UNIVERSITY
Office of Finance and Administration
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Concern is growing that students are carrying too much weight on their backs. Backpacks can cause neck, shoulder, and back discomfort if not selected and worn properly.

How Heavy is too Heavy?

The following are recommended limits set forth by the ACA (American Chiropractic Association), the APTA (American Physical Therapy Association), and the AAOS (American Academy of Orthopedic Surgeons):

Person's Weight (lb.)	Maximum Backpack Weight (lb.)
60	5
60-75	10
100	15
125	18
150	20
200 or more	25*

*No one should carry more than 25 lb.

Tips for Safe Backpack Use

- 1. Wear both straps** - Use of one strap shifts the weight to one side, causing muscle spasms and low back pain. This is true even with one-strap backpacks that cross the body. By wearing two shoulder straps, the weight of the backpack is better distributed, and a well-aligned symmetrical posture is promoted.
- 2. Distribute weight evenly** - Put the heavier items on the bottom and against the back to keep the weight off of your shoulders and to maintain neutral posture. The backpack should rest evenly in the middle of the back.
- 3. Take a load off** - Take the backpack off when you will be standing for a long period of time. Extended carrying time increases the pressure on your spine.
- 4. Choosing a backpack** - When choosing a backpack consider the following:
 - Thickly padded shoulder straps. Non-padded straps dig into the shoulders causing upper back and shoulder pain. Eventually arms and hands will tingle and become weak due to nerve compression and a compromised circulatory system;
 - A lumbar support. The lumbar cushion will redistribute weight to the lower extremities, creating a fulcrum that facilitates an upright standing position and good posture that is essential for proper spinal health. The lumbar cushion shifts the majority of the weight to the hips. This pulls the shoulder straps back to promote upright posture and the shoulder straps are used to balance the load.
 - A padded back.
 - A waist belt that distributes weight evenly. The belt shifts the weight off the shoulders, neck and upper back to the lower back. This will prevent injury and is more comfortable.
 - Multiple compartments that will allow better weight distribution.
 - A small backpack. If you don't choose a large backpack, you won't be able to carry as much!
- 5. Do you need all of this?** – Carry only what you need. Every extra item adds weight!
- 6. Proper Lifting** - Face the backpack before you lift it, bend at the knees and lift with your legs, not with your back. Keep the pack close to your body.

