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## BACK BASICS - HOW WE ARE PUT TOGETHER

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Our backs work in concert with our neck, and shoulder, and is made up of the spinal column, discs, muscles, ligaments, the spinal cord and nerves. Tendons, our connective tissue, attach muscles to bones, and the bursae, small fluid sacs that act as cushions between bone and muscle-tendon units, are also within the structure of the back.

The neck makes up the first seven vertebrae. The spine is made up of approximately 30 vertebrae that go from the neck to the tailbone. They are stacked on top of each other and have a natural curve. The lower back, or lumbar area tends to carry most of the weight and load of the body. Aligning and supporting the lumbar curve properly prevents many injuries.

Strong flexible muscles maintain the natural curve of the body. Muscles important to the back include the stomach, hip, hamstrings, buttock and back muscles.



## GREAT RESOURCES

OSHA Fact Sheet on Ergonomics

<http://www.osha-slc.gov/SLTC/ergonomics/index.html>

Oklahoma State University

<http://www.pp.okstate.edu/ehs/links/back.htm>

The NIOSH (National Institute for Occupational Safety and Health) Work Practices Guide for Manual Lifting (NTIS PB 821-789-48).

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## WELLESLEY COLLEGE

## BACK CARE AND PREVENTION OF WORKPLACE INJURIES

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# PREVENTING BACK INJURIES

Back disorders are listed in the "top ten" leading workplace injuries published by the National Institute of Occupational Safety and Health. They account for 27 percent of all nonfatal injuries and illnesses involving days away from work.

According to the latest injury figures from the Bureau of Labor Statistics, each year there are over 880,000 cases of back injuries. In most sectors of industry, back injuries now rank either second or third overall (Bureau of Labor Statistics, 1998).

Over our lifetimes, 8 out of 10 people will experience a back injury and back pain. Most back injuries are painful, debilitating, and life changing.

## WHAT CAN CAUSE BACK PAIN

- Improper lifting technique
- Picking up oversize loads
- Using back belts improperly
- Posture and poor alignment
- Awkward stretches while reaching
- Being in poor physical condition
- Static work postures



## PREVENTION

Preventing a back injury is much easier than repairing one. Because your back is critically important to your ability to walk, sit, stand, and run, it's important to take care of it, so here are a few basic rules:

- Exercise to strengthen your back and reduce stress
- Lose excess weight
- Maintain good posture – all the time!

## SOME TIPS

Before you lift that box, or tool, or piece of equipment, take a moment to consider your action:

- Do you need to lift the item manually?
- How heavy is it?
- Is it packed correctly?
- Is it easy to reach the load?
- Where are you moving the item from?
- Where does it have to go?
- What route do you have to follow?

## When Lifting:

1. Keep feet parted for stability
2. Squat down bending at the knees (not your waist). Tuck your chin while keeping your back as vertical as possible.
3. Get a firm grasp of the object before beginning the lift.
4. Begin slowly lifting with your LEGS by straightening them. Never twist your body during this step.
5. Once the lift is complete, keep the object as close to the body as possible

Pace yourself and get help before you try to lift a heavy load.

Use mechanical lifting devices to lift and or move heavy objects. If using a forklift or similar type device, make sure you have the appropriate training.

Slide heavy materials if possible rather than lifting them. Planks and rollers can make this job easier.

Storing materials at least 12 inches off the ground, can minimize having to lift directly off the ground.

Never try to catch heavy falling objects.

*And...*

To reduce the risk of injury during standing work, remember to move around, take breaks and stretch, and watch your posture.