# Health tip: Ergonomics and you

Ergonomics is the science of designing the job to fit the worker, rather than physically forcing the worker's body to fit the job.<sup>1</sup>

## Musculoskeletal disorders<sup>2</sup>

Proper ergonomics may help to reduce or prevent musculoskeletal disorders (MSD) which are disorders that affect the muscles, nerves, blood vessels, ligaments and tendons. Some examples of these disorders may include:

- · Carpal tunnel syndrome
- Tendinitis
- Rotator cuff injuries
- Epicondylitis (inflammation of the elbow)
- · Muscle strains and low back injuries

## Signs and symptoms of MSD<sup>2</sup>

It is important to recognize the signs and symptoms of an MSD as early as possible to prevent serious injury or permanent damage.

People at risk of MSD may experience some of the following signs or symptoms:

- · Numbness or a burning sensation in the hand
- · Reduced grip strength
- Swelling or stiffness in the joints
- · Pain in wrists, forearms, elbows, neck or back
- Dry, itchy, or sore eyes
- Blurred or double vision
- · Aching or tingling
- Cramping
- Weakness<sup>2</sup>

Although these symptoms may not necessarily lead to a MSD, if experienced, you should make an evaluation of the type of symptom and your current work environment.



#### Tech devices<sup>4</sup>

- Sit up when reading or texting
- Keep devices at eye level to decrease neck and back stress
- Use hands-free device when possible



## Office ergonomics solutions<sup>3</sup>

- Appropriately placed chair, keyboard, mouse, and monitor.
- · Consider ergonomically friendly equipment.
- Use a hands-free headset if possible.
- · Make sure feet touch the floor or are supported.
- Sit up. Keep your back in a normal, slightly arched position.
- Look straight. Make sure your working surface is at the right height to prevent neck strain.
- Ensure your chair supports your lower back.
- Take "ergo breaks" every hour or use a sit-to-stand workstation.

## **Driving ergonomics solutions**<sup>5</sup>

- Adding lumbar support such as a lumbar pillow or by rolling up a small towel
- · Remove items from pockets.
- Position items you may need to minimize reaching.
- Adjust mirrors to minimize neck strain.
- Position your steering wheel to 10-12 inches from the driver's breast bone.
- Keep both hands on the wheel (unless you are shifting) and keep your arms in comfortable position.
- Changing your hand position frequently to improve circulation and reduce fatigue.
- · Grip the steering wheel lightly.



### Lifting solutions<sup>6</sup>

- Stand close to the object you want to lift.
- Stand with your feet shoulder width apart, bend from your legs, not the waist.
- Tighten your stomach muscles.
- Lift with your leg muscles as you stand up.



<sup>1</sup> UNC, Institutional Integrity and Risk Management, Environment, Health and Safety, Ergonomics, https://ehs.unc.edu/workplace-safety/ergonomics/.accessed August 2020

The information in this educational tool does not substitute for the medical advice, diagnosis or treatment of your physician. Always seek the help of your physician or qualified health provider for any questions you may have regarding your medical condition.

<sup>&</sup>lt;sup>2</sup> OSHA. https://www.osha.gov/SLTC/ergonomics, accessed August 2020.

 $<sup>^{3}\ \</sup>underline{\text{https://uwaterloo.ca/safety-office/programs-and-procedures/ergonomics/office-ergonomics, accessed August 2020.}$ 

<sup>4 &</sup>quot;10 tips for a healthy back". https://www.spine.org/KnowYourBack/Prevention/Lifestyle-Choices/10-Tips-for-a-Healthy-Back, accessed August 2020.

<sup>&</sup>lt;sup>5</sup> USDA. https://www.aphis.usda.gov/aphis/ourfocus/business-services/Emergency\_Management/Ergonomics\_Program/Driving\_Ergonomics\_accessed August 2020.

<sup>6 &</sup>quot;Preventing back pain at work and at home". https://orthoinfo.aaos.org/en/staving-healthy/preventing-back-pain-at-work-and-at-home/, accessed August 2020.