



Commonwealth of Massachusetts Executive Office of Labor and Workforce Development

Office Ergonomics

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Webinar audio:

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Objectives

This is a self-help webinar to help you adjust your chair and workstation:

1. Adjust your chair.
2. Put monitor in the best place.
3. Adjust Keyboard and Mouse.



Adjust Your Chair



We will discuss 3 main items:

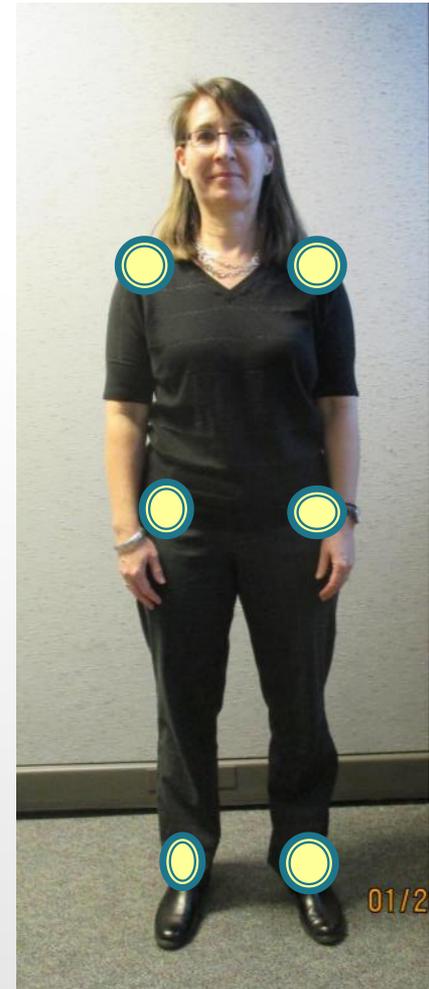


1. Feet firmly on floor.
2. Hips and knees at same height.
3. Back cushion provides support.

Demonstration of Concepts

Please stand up and do this with me:

- ▶ Stand comfortably and look straight ahead.
- ▶ Sense the position of your body:
 - Shoulders above hips;
 - Hips above knees;
 - Knees above feet.



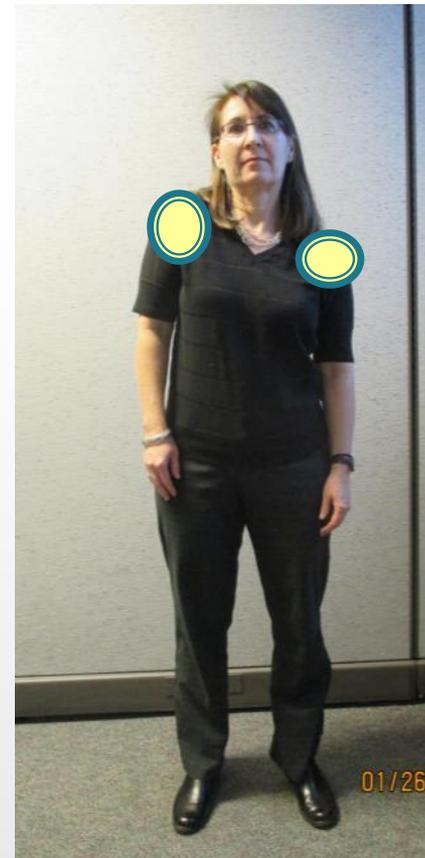
Demonstration of Concepts

Now raise up one shoulder with me:

We don't stand this way,

So we are not going to sit
this way!

*My chair recommendations are based
on keeping your sitting posture as close
as possible to your standing posture!*



Adjust Your Chair without extra pads or pillows

If you currently use a pillow with your chair, take the pad off to make the adjustments in this webinar.

The goal is to make your chair comfortable without using a pad at all.



First Chair Adjustment – Put feet firmly on floor

- ▶ Lower the seat so that both feet are firmly on the floor.



Not OK:
Feet do not touch floor.



Good: Feet fully on floor.

Second Chair Adjustment – Hip and knees at same Level

- ▶ Next, play with height of chair so that your hip and knees at same level.



Too High: Hip is higher than Knees. This can compress blood flow in thighs.



Good: Hip and Knees are at same level. Thighs are parallel to the floor.

How Do I Adjust the Height?

- ▶ Each manufacturer has their own levers.



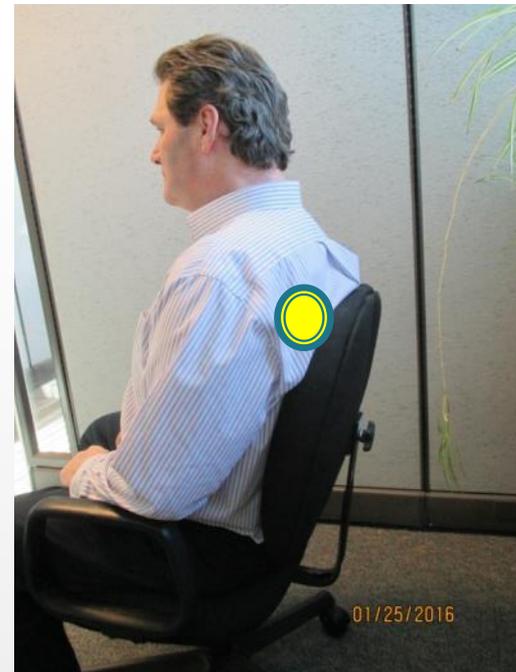
Look for this icon for Up/Down.

Next Chair Adjustment- Back Cushion

- ▶ Back cushion should extend up to shoulder blade.



Not OK: Back cushion is too low.



Good: Back cushion extends up to shoulder blades.

How Do I Adjust the Back?

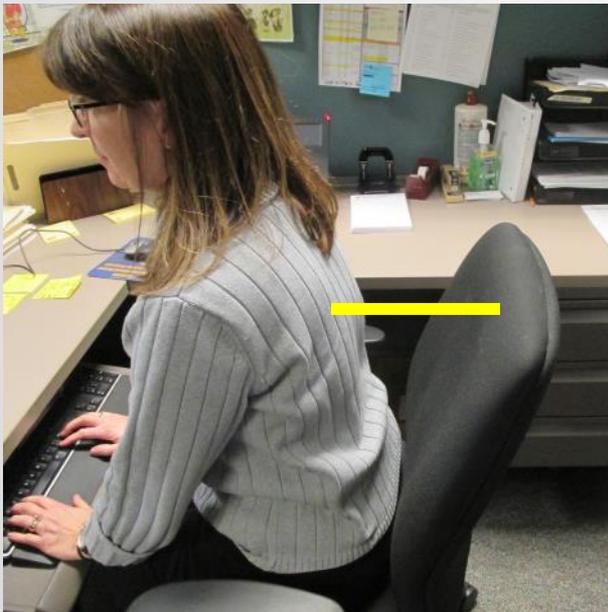
- ▶ Each manufacturer has their own knob.
- ▶ Loosen the knob at the back.
- ▶ Pull the cushion up. Tighten in place.



Loosen the knob and pull the cushion up.

Next Chair Adjustment- Back Tilt

- ▶ Next, we adjust the back cushion so we get some support.



Not OK: Back cushion does not touch your back.



Good: Back cushion hugs your back, but does not push you forward.



Look for this lever. Lift and push the cushion closer to you.

Last Chair Adjustment- For the very tall

The next adjustment is for people with long legs that extend past the seat cushion. Some chairs allow the seat cushion to move out closer to your knees.



Uncomfortable: Large gap where thigh is not supported by cushion.



When a chair has this feature, the lever has this icon.

Monitor Location

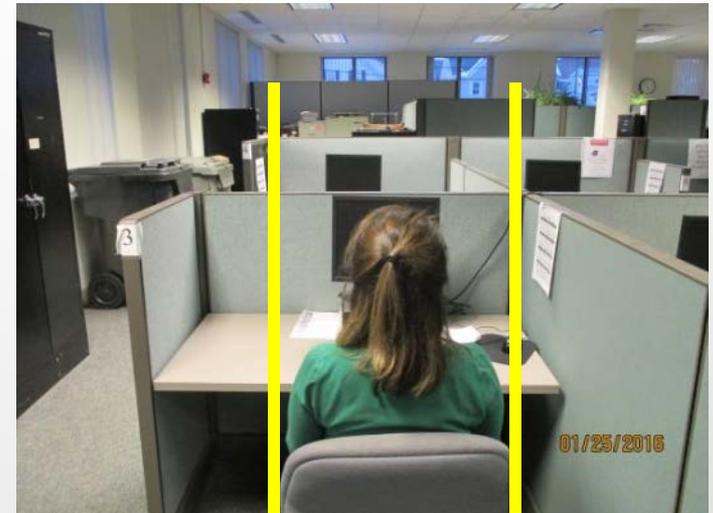


We will discuss main goal:

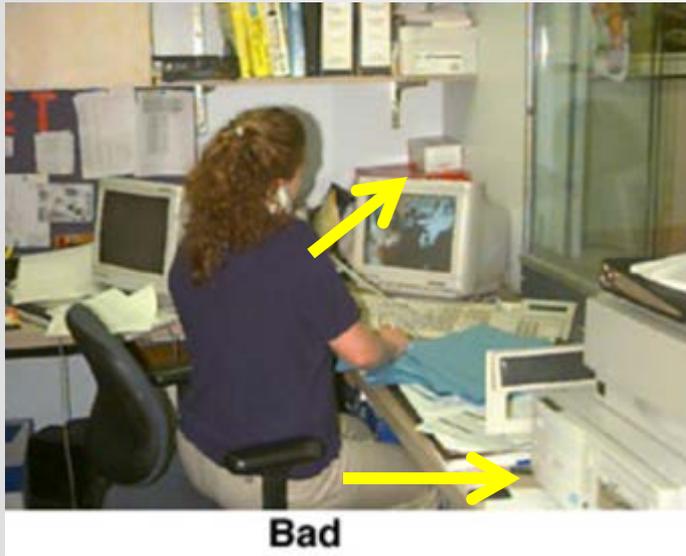
1. Keep your neck straight.

Best Location for Monitor

- ▶ Put monitor in direct lane with your chair:
 - ▶ Shoulders are between left/right edges of monitor.
 - ▶ Feet point directly under monitor.
 - ▶ Knees point directly under monitor.
 - ▶ Keyboard in middle of monitor.



Monitor Location



No –
Shoulder is twisted.

Shoulders facing different
direction than knees.



Yes –
Shoulders in line with corners of
monitor.

Shoulders, hips, knees and feet
are all facing the same direction.

Monitor Height

Each person has a preference.

Rule of Thumb:

- ▶ Top of monitor should be at eye level.
- ▶ Monitor should be 18"–28" away from face.



Keyboard Location



We will discuss:

- Height of keyboard tray
- Where to put mouse

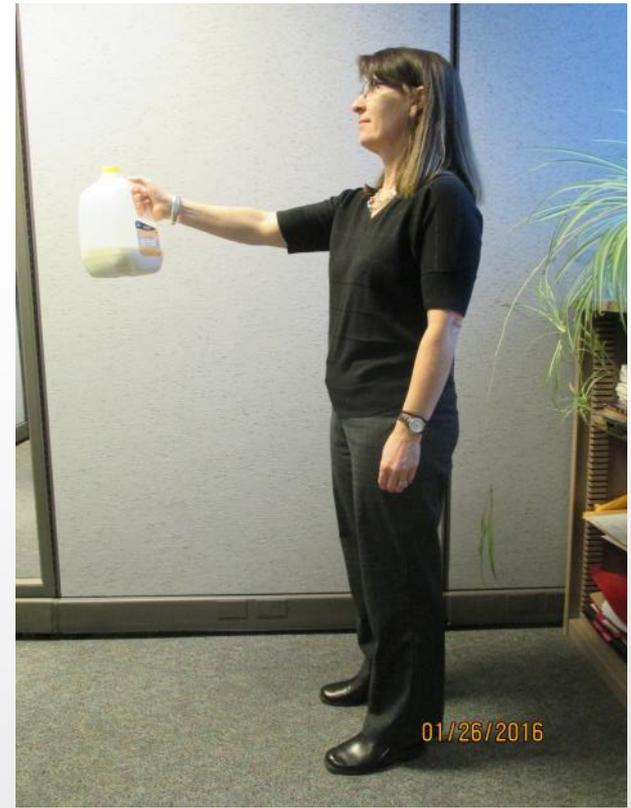


Demonstration of Concepts

Pretend to do this with me:

Hold a gallon of milk.
Hold it with arm extended.

Now carry it 2 blocks down
the street. Notice how it
starts to feel heavy!



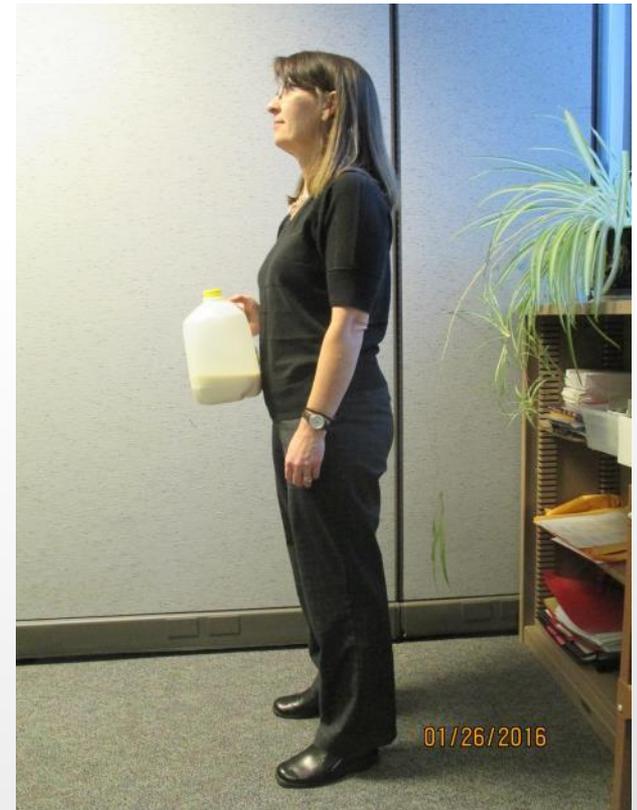
Demonstration of Concepts

A better way to carry the milk:

Weight is close to my torso.

- ▶ Hands near my waist.
- ▶ Elbows near my torso.

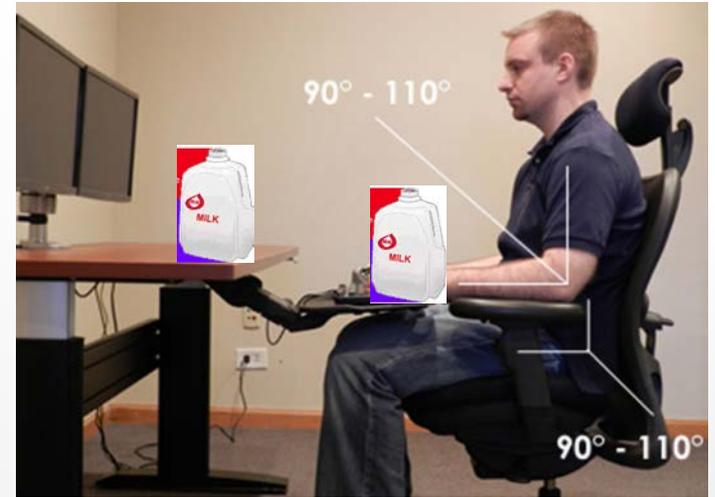
Just like carrying a gallon of milk is “work,” typing is also “work.” So, we want to bring the typing close to your torso.



Keyboard Location

Bring the keyboard to you –

- ▶ Near your lap.
- ▶ Knees under keyboard.
- ▶ Elbows close to torso.



Tip: your knees are below the row of Function Keys on the keyboard.

The tray hovers above your legs, but does not touch you.

Mouse location

When mouse is on a desk, it can raise our shoulder up higher than our neutral standing position.



NO – Elbow is far from torso.
Right shoulder is raised up.

We do not want to “lift” like this for 8-hours!

Mouse location

Keep keyboard and mouse on same level.



YES – Keyboard tray is used.

YES – Keyboard and mouse are on same level.

Adjust the Tray



Some trays have an adjustment knob underneath the tray.



Some trays have an adjustment knob at the top of the tray. Push down hard on the bar and tighten the knob.

Demonstration of Concepts

Pretend to carry a grocery bag.

- ▶ We don't grab the bag with our fingers above our wrist – we are just not strong this way.
- ▶ We hold the bag with our fingers below our wrist.

Likewise, we want to type with our fingers lower than our wrist.



Keyboard Angle



Bad.
Hand is not strong
when fingers are
higher than wrist.



We don't want to type with our fingers
higher than our wrist.

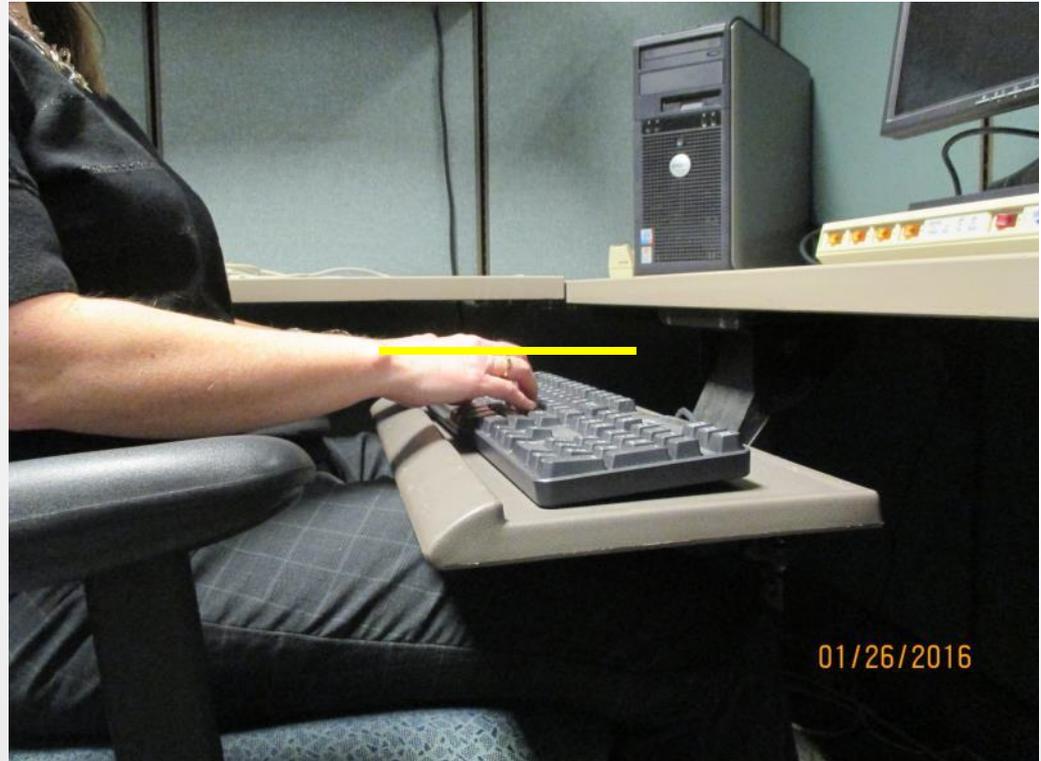
- Do not use the legs on keyboard because this puts your fingers higher than your wrist.
- Put keyboard tray close to your lap.

Keyboard Location



Good.

Fingers are below wrist when we carry a grocery bag.



Good: Fingers are below wrist when typing.

Good: Keyboard is hovering just above thighs.

Good: Elbow is next to torso.

Monitor & Keyboard Location



NO:
Monitor in corner;
keyboard tray on desk.



YES:
Monitor in straight line with
chair and keyboard.
Keyboard tray can be lowered
near your lap.

More Ergonomic Tips

- » Telephone
- Laptops
- Document Holder
- Customize cursor
- Clutter
- Sit-Stand Tables
- Rest Breaks

Telephone

- ▶ Do not cradle phone between face and shoulder.



Laptops

Many of us can look like this when we use a laptop:

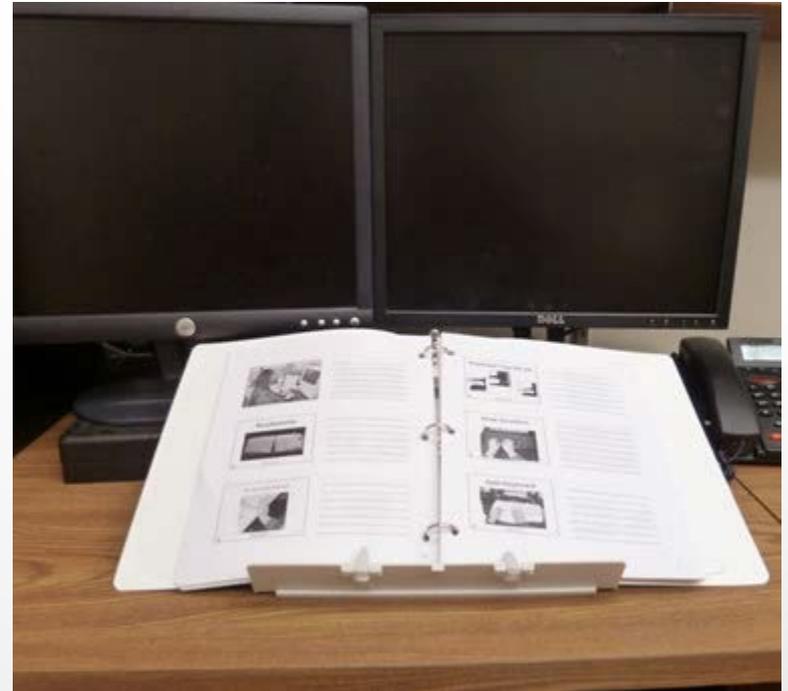
- ▶ Monitor too low:
Neck is bent.
- ▶ Keyboard too high:
Elbows are up and away from torso;
shoulders up too high.



Solutions: Adjust chair height; attach a keyboard so you can lower your hands near your lap.

Document Holder

- ▶ Put your source documents directly in front of the monitor so you do not have to twist your neck.



Customize Display

Microsoft allows you to customize your display:

Enlarge pointer arrow.

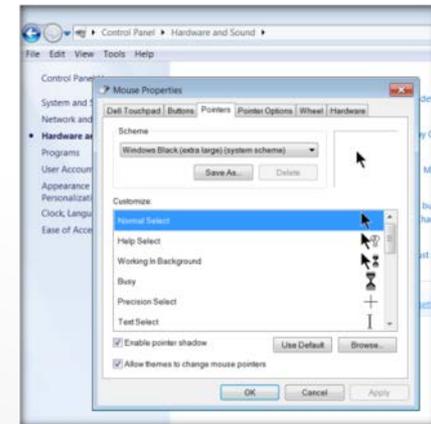


I chose "Windows Black Extra-Large"

Enlarge blinking cursor. |



Enlarge font.



Customize your features at the **Control Panel**. You can always switch back!

Clutter

Remove Clutter!

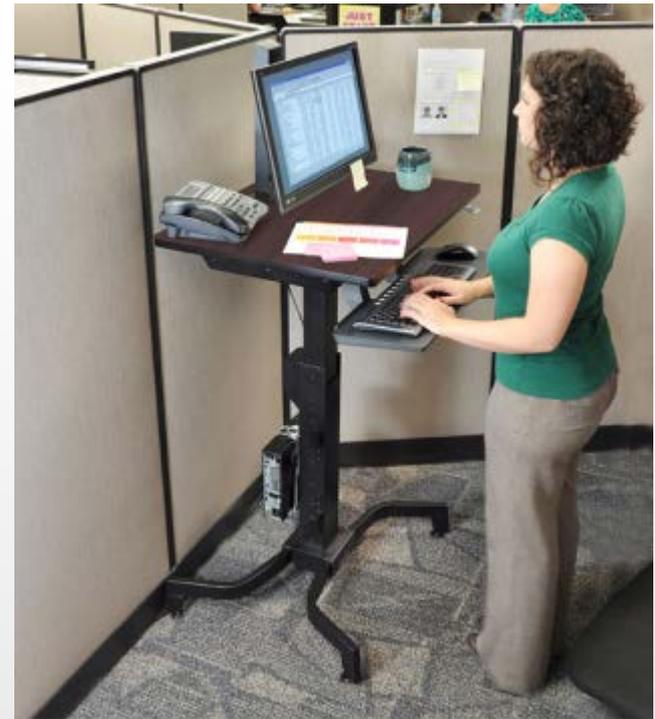
- ▶ Keep the floor clear so you can pull your chair under your desk.
- ▶ Keep the desk clear so you can put monitor in front of you.



Sit-Stand Tables

Sit-Stand stations are NOT RECOMMENDED.

- ▶ Currently, studies do not show reduction of carpal tunnel or neck strain.
- ▶ Sit-stand tables often put the keyboard too high when sitting. A keyboard tray is still needed.



Permission to Take a Break

- ▶ Walk to copier
- ▶ Walk to water cooler
- ▶ Walk to breakroom
- ▶ Walk to bathroom



Final Check

- ▶ **Adjust Chair**
 - Feet on floor
 - Hips and knee same level
 - Back cushion reaches shoulder
- ▶ **Monitor Straight Ahead**
- ▶ **Keyboard & Mouse**
 - Keyboard hovers above thighs
 - Elbows close to torso
 - Mouse and keyboard same level.



Thank You for Attending the Ergonomics Webinar.

Public Website:

- ▶ Ergo – Tips for Employees
- ▶ Chair Buying Guide
- ▶ Keyboard Tray Buying Guide

State wiki site:

A copy of this webinar will be posted on the state MESHARE wiki:

<https://wiki.state.ma.us/confluence/display/meshare>

