



Occupational  
Health Clinics  
for Ontario  
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# OFFICE ERGONOMIC REFERENCE GUIDE

Presented by:

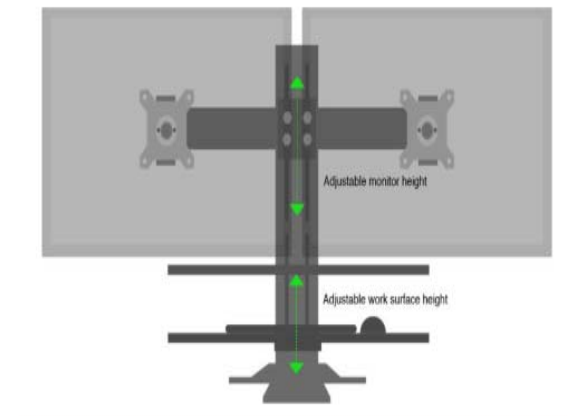
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**OHCOW Ergonomists**

# Office Ergonomic Reference Guide Begins...

## WHAT YOU MIGHT FIND IN THE FIRST 4 MODULES

- 1) Introduction to Ergonomics
- 2) Work Surfaces
- 3) Chair
- 4) Monitors



# Introduction to Ergonomics

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- Main Ergonomic Risk Factors in the Office: Repetition, Awkward Postures, Static Forces
- OHSA: Employers have a legal responsibility to provide a safe workplace. This includes improving the workplace and implementing measures to protect workers from all hazards, including MSD.
- CSA Office Ergonomic Standard Z412-17

Ontario 

“An employer shall take every precaution reasonable in the circumstances for the protection of a worker.”

[www.ontario.ca/laws/statute/90o01](http://www.ontario.ca/laws/statute/90o01)



Z412-17

Office ergonomics — An application standard for workplace ergonomics



# Introduction to Ergonomics

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## Before You Buy Office Equipment

Find out what you need:

- Ensure the equipment provided fits the user (i.e. one chair may be too large for one user yet too small for another user).
- Try Before You Buy. Arrange to get samples of equipment from your supplier for users to trial if possible.
- Develop a *standard* for purchasing based on the **CSA Z412 Office Ergonomic Standard** to ensure that equipment will 'fit' the workers and be suitable to the tasks they perform.
- **If the workstation is being shared**, you may want to consider more adjustability (i.e. height adjustable workstation).

## Purchasing Considerations



Due to the fact there is no legislation on labelling products as ergonomic one must proceed with caution when purchasing equipment labelled as "ergonomic".

# Work Surfaces

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- A workstation should:
  - Be solid
  - Provide adequate space
  - Provide sufficient clearance
  - Allow for neutral sitting and standing postures
- Workstation configurations:
  - Straight
  - Corner
  - L-shaped
  - U-shaped

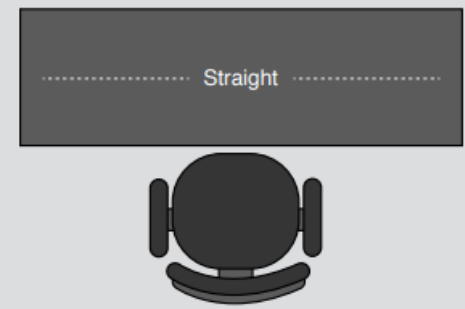
## Straight

### Merits:

- Good when the user performs only one task (computer or paperwork).

### Limitations:

- Often there is insufficient space to house all the required computer components.
- When an individual performs multiple tasks.



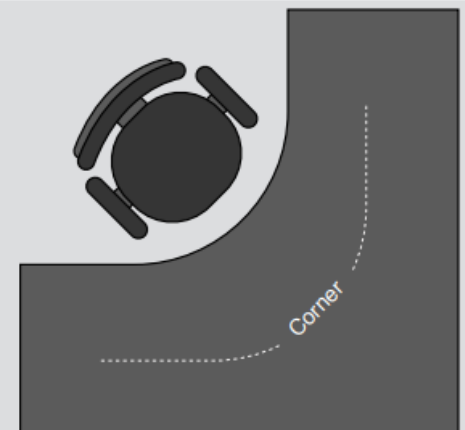
## Corner

### Merits:

- May allow workspace on either side of the computer.

### Limitations:

- Paperwork area potentially limited by length of straight sides.
- Often curve is too small to position keyboard and mouse correctly to maintain neutral postures.
- Leg clearance is often limited by desk supports under the workstation.
- Limited by available workspace.



# Chair

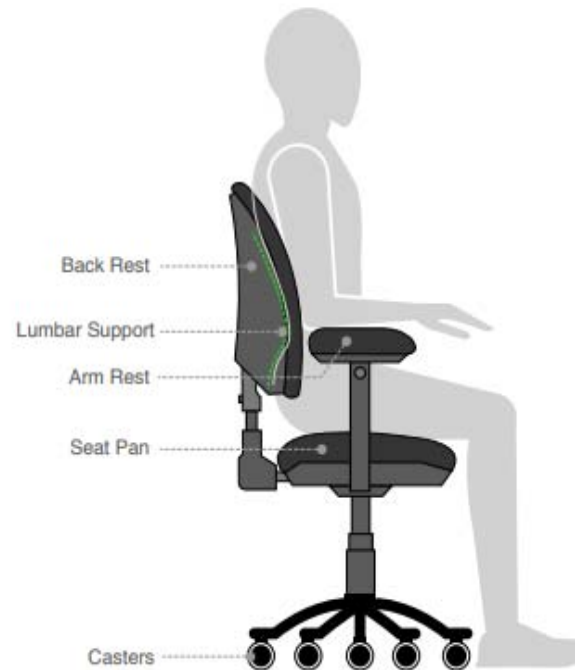
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## What Makes a Chair Ergonomic?

A chair is only “ergonomic” if the user can adjust it to fit their own personal dimensions.

In order to do this the following parts of a chair need to be adjustable:

- **Seat pan** – height and depth
- **Backrest** – height and angle
- **Lumbar Support** – height and depth
- **Armrests** – height, width and ability to rotate



Seated Neutral Posture in an Adjustable Chair

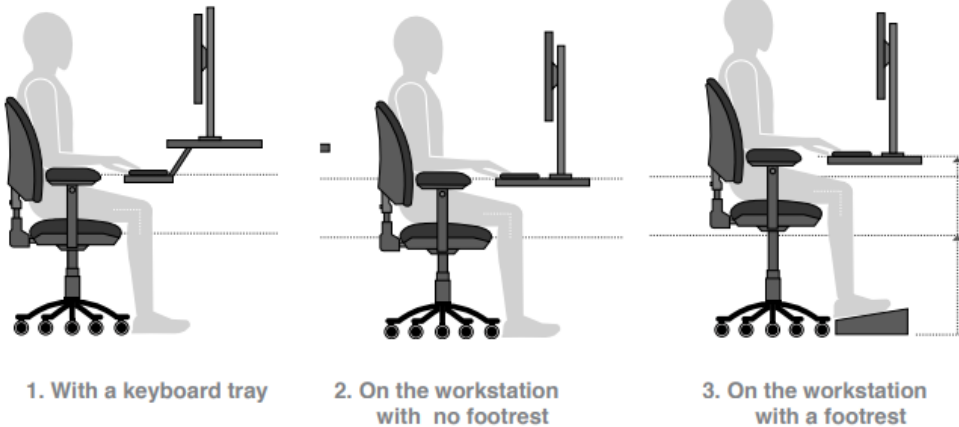
The chair must fit the user as well as suit the tasks that they perform.

One style of chair may not suit every user. The chair should provide support and stability to the user and allow movement through multiple positions.

# Chair

## Seat Height

- Depends on the size of the user
- The working height dictates the height at which the seat is positioned



## Armrests

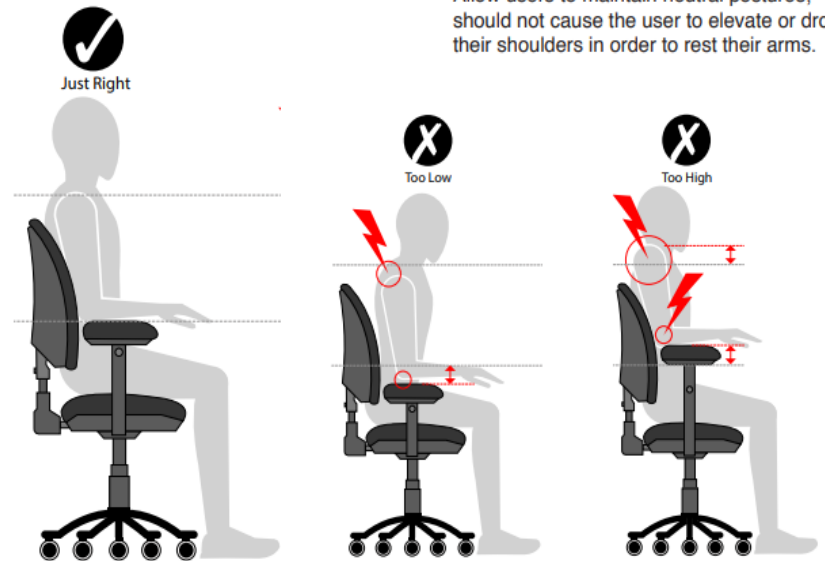
The armrests on a chair should:

- Support the arms.
- Allow access to the workstation.
- Distribute forces evenly.
- Allow the user to sit in a variety of postures.

### Armrest Height

The armrest height should:

- Be adjustable in height and support the users' forearms and/or elbows.
- Allow users to maintain neutral postures; should not cause the user to elevate or drop their shoulders in order to rest their arms.



# Computer Screens/Monitors

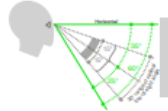
## Positioning and Adjusting Monitor(s)

When positioning and adjusting a monitor(s), you need to consider:



• Height

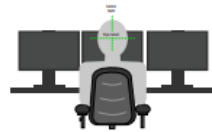
• Horizontal placement



• Monitor viewing angle



• Viewing distance



• Number of monitors

## Screen Height Adjustment Devices:

- Height Adjustable Monitors
- Monitor Risers
- Stationary Monitor Arms
- Articulating Monitor Arms



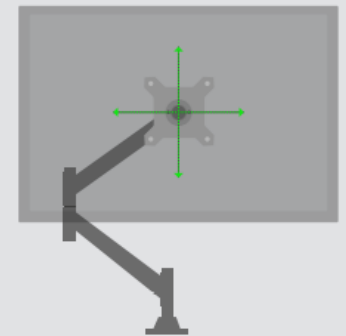
### • Articulating Monitor Arms

#### Merits

- Can adjust monitor(s) in a wide range of heights, angles, and configuration.
- Can be easily manipulated.
- Can relocate the monitor when not in use.
- Ideal for single monitor use.

#### Limitations:

- Can take up a large portion of the workstation.
- Difficult to configure if used for multiple monitors.

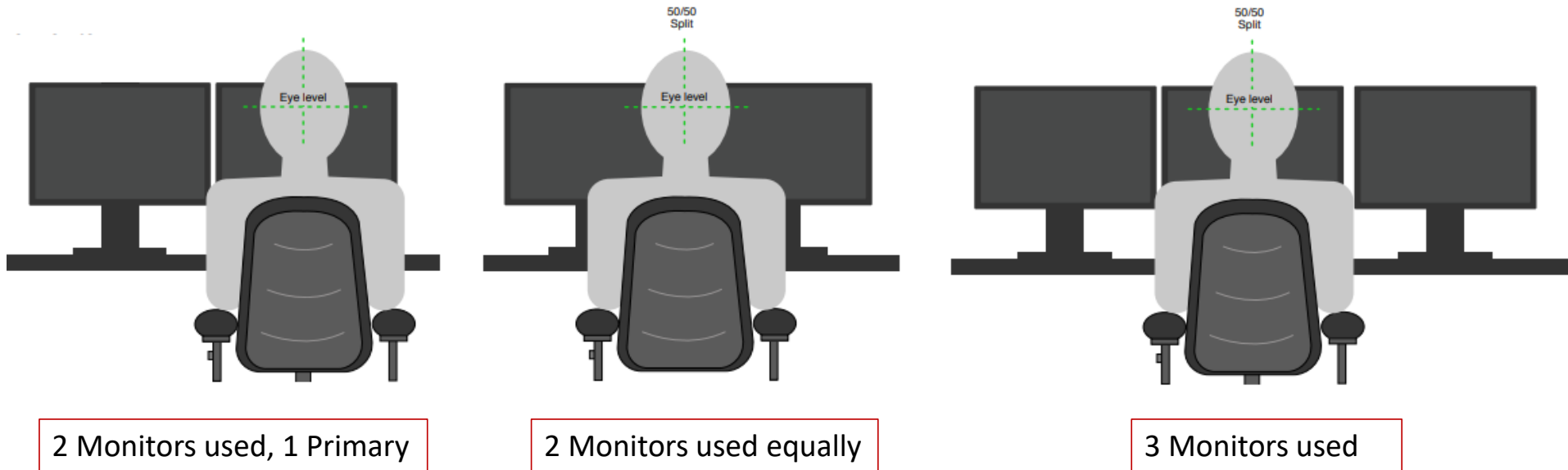




# Computer Screens/Monitors

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## Multiple Monitor Placement



# WHATS TO COME?

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NEXT WEEK WE WILL BRIEFLY DISCUSS THE NEXT 4 MODULES.

- 5) External Equipment & Accessories
- 6) Technology: Laptops, Mobile Telephones & Tablets
- 7) Sit/Stand Workstations
- 8) Remote (Mobile) Workstation Setup

