

ERGONOMICS

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ERGONOMICS REQUIREMENTS-WSBC

- **WorkSafeBC OHS (Ergonomics) Regulations: Sections 4.46 - 4.53.** Places a legal responsibility on employers to identify factors in the workplace that may expose workers to a risk of MSI, assess the risk level and implement appropriate controls.
- **Supervisor Responsibilities:** Identify & assess hazards; develop controls; educate/train employees
- **Employee Responsibilities:** Follow safe working procedures & PPE; report injuries, near misses and broken/damaged equipment

Under WSBC, Supervisors are responsible for the health & safety of their employees



HOW DO I GET HELP

1. Talk to your Supervisor/Manager
2. Attend an Ergonomics Workshop (office work)
3. Contact the Ergonomics Program to schedule an assessment
 - a) Pre-assessment survey. You will be sent a pre-assessment survey
 - b) After the assessment, you and your supervisor will receive a copy of the report
 - c) It is up to the DEPT to implement recommendations



POSTURE, HEALTH & MUSCULOSKELETAL INJURIES



MSI SIGNS & SYMPTOMS



Report signs & symptoms **early**;
Make changes to prevent symptoms from getting worse



SEDENTARY BEHAVIOUR

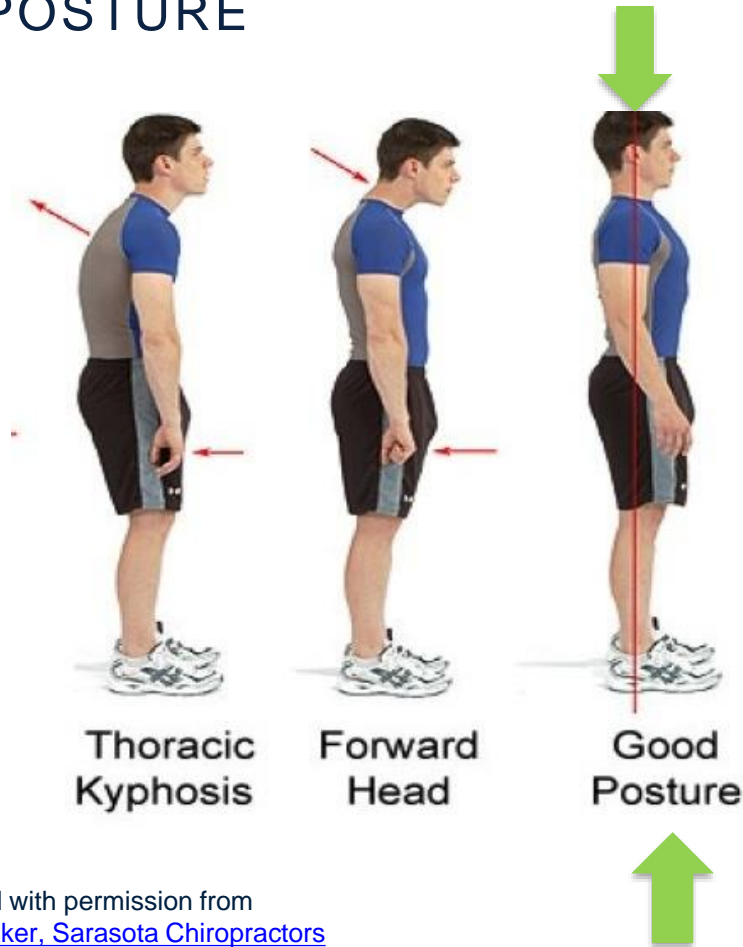


The best posture is...
the *next* posture

Move every 20 minutes



NEUTRAL POSTURE



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NECK & HIP POSTURE

Neck Posture

0° 12lb	15° 27lb	30° 40lb	45° 49lb	60° 60lb
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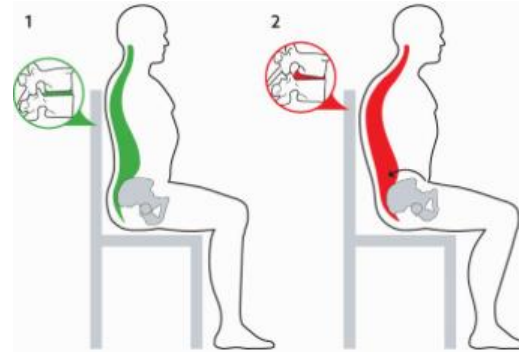


GUARDIAN GRAPHIC

SOURCE: SURGICAL TECHNOLOGY INTERNATIONAL

From: [The Guardian](#)

Hip Posture



From: [1-HP.org](#)



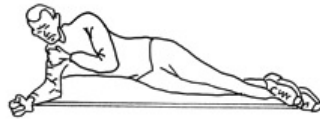
BACK HEALTH

Stuart McGill: [Big 3 Back Exercises](#) ([video](#))

- Modified Curl-Up



- Side Bridge



- Bird Dog



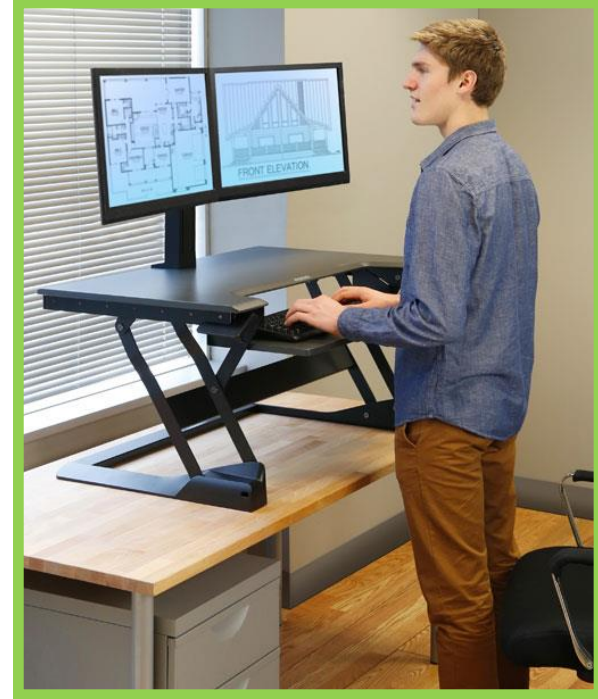
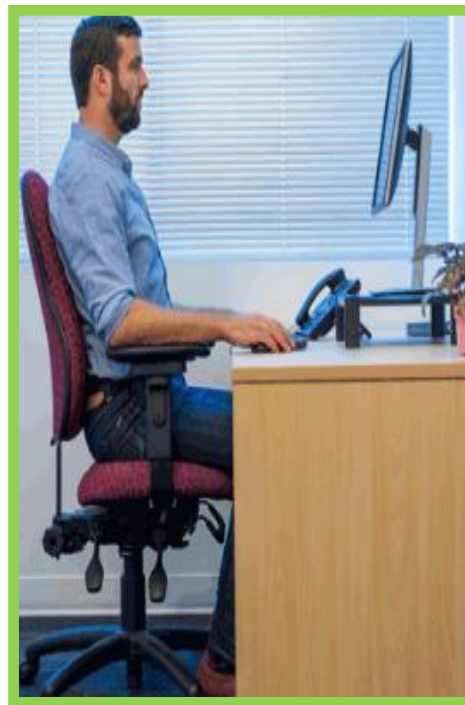
Follow up with your **healthcare provider** to see what is right for you



OFFICE SET-UP



CORRECT HEIGHTS



Picture from ergotron

Refer to UBC's [Ergo Your Office Online](#) Guide for more info

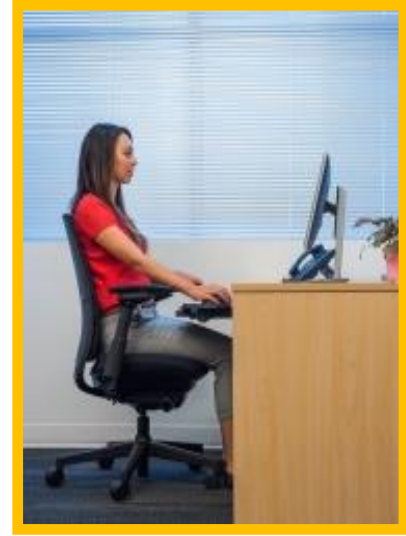
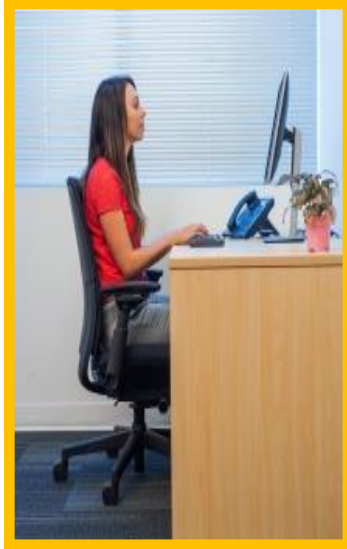


COMPUTER SET-UP

- ✓ Feet firmly supported
- ✓ Backrest angle: 90° to slightly reclined
- ✓ Lumbar support fits small of back
- ✓ Keyboard and mouse below elbow level
- ✓ Monitor height: top line of text at ~ eye level
- ✓ Monitor distance: ~ arm's length
- ✓ Nice to have forearms supported on desk or armrests



KEYBOARD & MOUSE



Keyboard & Mouse should be just below elbow level

WRIST POSTURE



Picture from WSBC



Picture from WSBC



MONITOR



Top line of text should be at eye level



VISION



- ✓ Increase font size
- ✓ Adjust screen brightness & colour to your preference and environment
- ✓ Look away from your monitor: 20-20-20
- ✓ Blue light & circadian rhythm

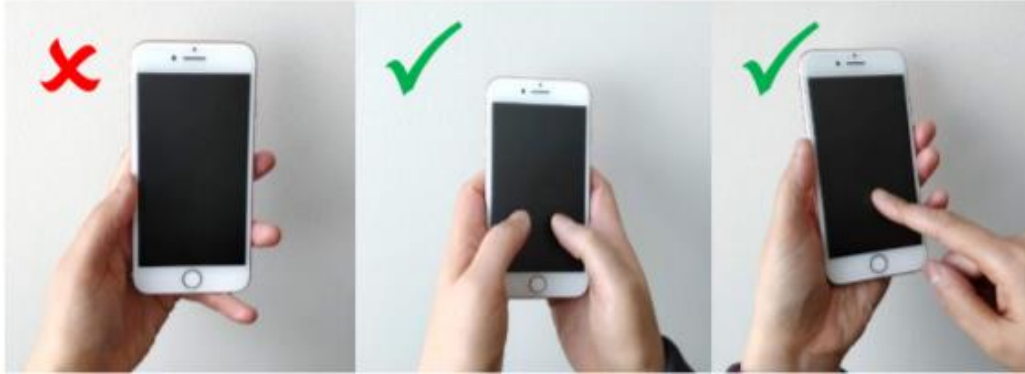


PHONE



- Avoid cradling the phone between the ear and shoulder – this posture can cause neck strain and headaches
- If phone use is frequent, try:
 - Speakerphone
 - Hands-free headset
 - Place phone on left side of desk

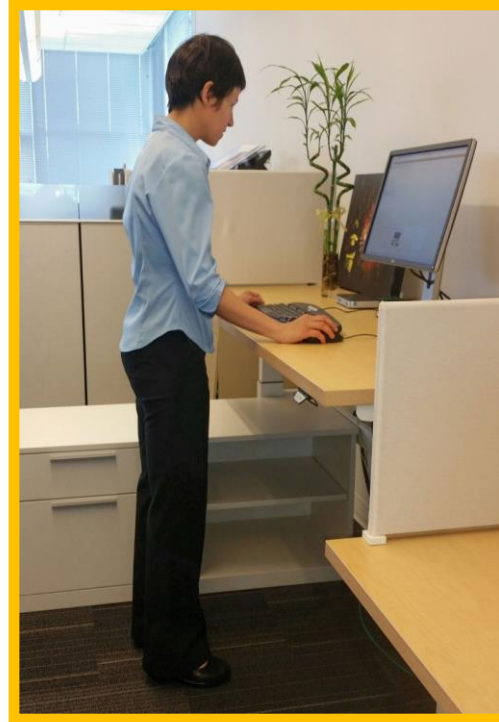
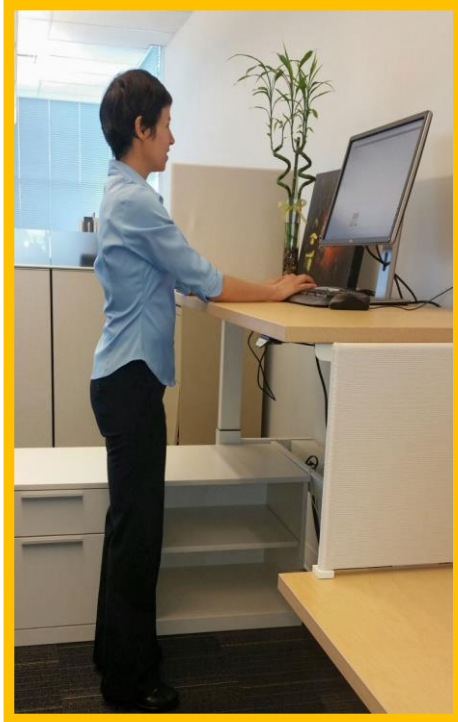
SMART PHONE—HAND POSTURE



[Smartphone Ergo Online Resources](#)



STANDING HEIGHT



Alternate between sitting and standing every 20 minutes



SIT-STAND PLATFORMS



ErgoTron TX



ErgoTron TL



ErgoTron
S-Dual



Humanscale
Eco-Quickstand

Refer to UBC's [Ergonomic Design & Purchasing Guidelines](#).



DEMO PROGRAM

Demo platforms and desks are available through a partnership between the Ergonomics Program & Access and Diversity.

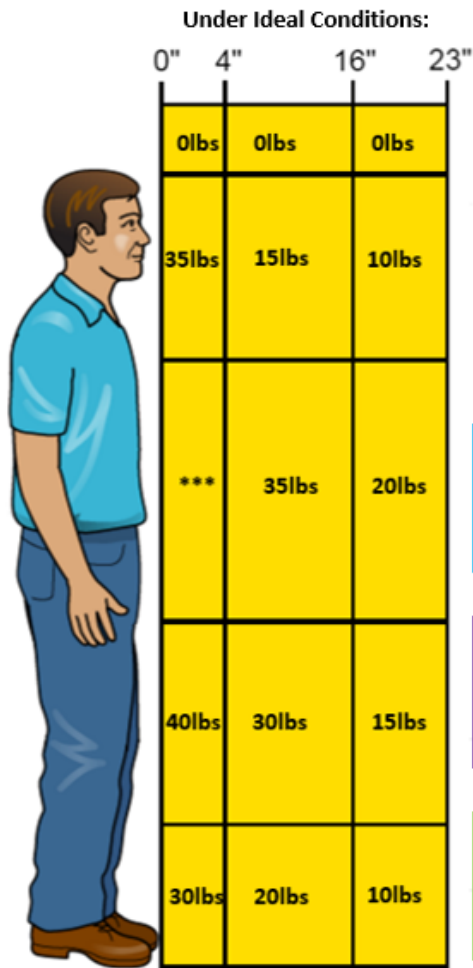
This allows staff and faculty to trial the equipment for **1 to 2 months** to determine if the equipment is suitable.

See UBC's [7-step program](#) to access a demo



LIFTING





Ideal Conditions:

- Good grip with both hands
- No twisting or bending
- Minimum of 5 minutes between each lift
- Lifting over no more than 1 hour of the day
- Ambient temperature 19° to 26°

Personal Factors:

Not everyone can lift this weight. But no one should be required to lift above this weight

*****Maximum Weight**

NIOSH lists 50lbs as the max weight
Oregon OSHA calculator lists 70lbs as the max weight

*****UBC Recommendation.**

UBC's Ergonomics Programs recommends **50lbs** as the max weight

Diagram and weights based on [Oregon OSHA Calculator](#)



THINK BEFORE YOU LIFT

1. Do you need to lift that item?

- Can you use a dolly or other means to move the item?

2. Test the load:

- How heavy is the load?
- Can you get a good grip?
- Is the shape awkward?
- Is help needed?

3. Clear the path:

- Do you have enough room to get in close?
 - Avoid lifting over another object
- Are there any trip hazards?
 - Remove any hazards
 - Make sure you are aware of any hazards that cannot be removed



ENGAGE YOUR ABS

Engaging your Transverse Abdominal (TA) muscles is critical in providing stability

To locate your TAs:

1. Place hands on hips (bony part)
2. Move hands 1" towards your belly button and 1" towards your toes
3. Activate core by pulling belly button to spine.



Used with permission from: [Pilates Success](#)

When you contract your TAs, you should feel tension under your fingertips and **not** a contraction that pushes your fingers out.



LIFTING POSTURE

Best Practices

- Keep ears and shoulders over hips
- Engage transverse abs
- If it is necessary to bend forward, **bend at the hips**, do not round your spine



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[Dr. Aker, Sarasota](#)
[Chiropractors](#)



POOR LIFTING POSTURE:

Head and shoulders are far in front of the hips, back curved.

This increases the strain on your back musculature



Used with permission from
[Chesapeake Physical & Aquatic
Therapy](#)

Lifting with the knees straight
places high strain on your back



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FARM WORK



LOW LEVEL WORK: DIFFERENT POSTURES

Advantages & Disadvantages of each of the following postures:



WASHING CARROTS



Are other options available?

- E.g. raised platform at the front edge of the table but not as deep as the full table-would allow staff to hang carrot tops away from them without reaching too far
- Other suggestions?



TABLE WORK



Tables at different heights is beneficial

If it's too low, flip a small bin upside down to raise your work



WASHING LETTUCE



Work at waist level



Turn feet
Avoid twisting



WORK AT WAIST LEVEL



Work at waist level



Raise work up to a comfortable height



PUSHING & PULLING



- Keep arms close to body
- Don't overfill



- Keep arms close to body
- Get help if needed



NON-PHYSICAL FACTORS



PSYCHOSOCIAL FACTORS



What can you do to improve the positive factors within your work environment?



POSITIVE PSYCHOSOCIAL FACTORS

Positive factors such as autonomy, rewards, recognition and co-worker/supervisory support have a protective effect from injury.

What can you do to improve the positive factors within your work environment?

Available Resources:

Staff & Faculty	Students
UBC EFAP Program Employee & Family Assistance Program	Student Health 1 link for all student health services
Mental Health Training Variety of workshops	



FURTHER ASSISTANCE

Check out [online resources](#)

Contact ergonomics.info@ubc.ca

