

ERGONOMICS

Working from your
Home Office

Making Safety Simpler

INTRODUCTION

What is Ergonomics?

Ergonomics is about interactions between people and their physical and organizational environments. When people's workplace conditions and job demand match their capabilities; safety and productivity improve.

Having a proper ergonomic set up whether at the office or your home office is important to help reduce the risk of strains and sprains and other musculoskeletal injuries (MSI's). MSI's is one of the most common work-related injuries in BC.

When your workstation is set up right, you may:

- Be less likely to have problems such as headaches or eye strain.
- Reduce neck and back pain.
- Prevent bursitis or tendon problems that are linked to doing the same task over and over (repetitive tasks).

Adjusting Your Workstation

1. Read the BCCSA Working from home Quick Tips
2. Follow the Workstation Layout and Design Information (page 3-23)
3. Review Common Problems/Potential Solutions document (page 27)
4. Try the Office Stretches (page 28)

Still having issues?

If you have completed the above steps and are still feeling discomfort at your workstation, please advise your supervisor first and they will advise you of next steps.

Please note: the information does not replace advice or from a Doctor and should be used for guidance only. The following information has been retrieved from WorkSafeBC and CCOHS.

Resources:

What is a musculoskeletal injury and how to assess and reduce risks?

<https://www.worksafebc.com/en/health-safety/hazards-exposures/ergonomics?origin=s&returnurl=https%3A%2F%2Fwww.worksafebc.com%2Fen%2Fsearch%23q%3Dergonomics%26sort%3Drelevancy%26f%3Alanguage-facet%3D%5BEnglish%5D>

How to make your computer workstation fit you

<https://www.worksafebc.com/en/resources/health-safety/books-guides/how-to-make-your-computer-workstation-fit-you?lang=en>

Information on telecommuting, employer responsibilities, etc. from CCOHS

<https://www.ccohs.ca/oshanswers/hsprograms/telework.html>

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ERGONOMICS | WORKING FROM HOME

Many of us are not used to working from home and as we transition into a home office it is important to remember a few key steps:

1. It is important for us to try and replicate your office workstation to your home workstation. This helps us to remain working efficiently, comfortably, and safely.
2. If you do not have your normal office equipment, if possible, ask your employer if there is a way you can retrieve your office equipment but also follow the physical distancing guidelines set out from Provincial Health Officer.
3. Check in with your employer, supervisor, union, or Joint Occupational Health & Safety Committee for more information on your companies working from home policies.

Home Set-up Quick Tips:

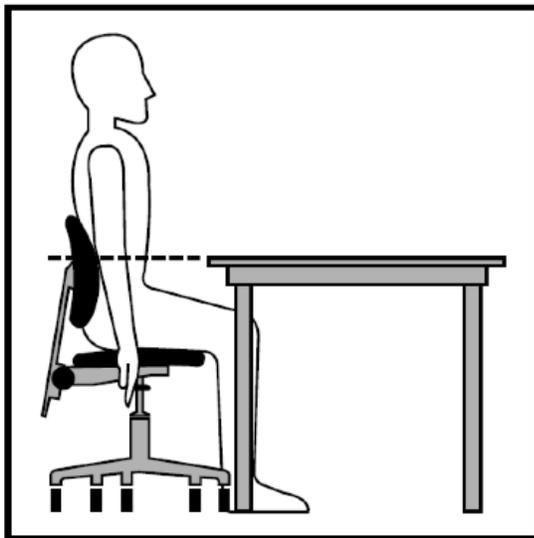
- Working solely from a laptop is hard on the neck and body. If possible, use external devices such as keyboards, monitors and mice to help keep you in a neutral position.
- Find a dedicated place for you to set up your workspace. Try and separate work and home life.
- Find a comfortable chair with back support and keep your feet supported.
- Place the top line of text on your monitor at or just below your eye level.
- Place your keyboard and mouse just below your elbow.
- Use props if you do not have the right equipment to keep your body in neutral. Such as books under your laptop or a pillow for backrest.
- Make frequent positional changes – do not stay in the same position for more than 60 minutes.
- Try standing! Raise your monitor to eye level and ensure keyboard is just below elbows (90 degrees).
- Take your normal breaks and lunch. It is important to move around and stretch throughout the day.
- Drink lots of water! This helps you move around and gives your eyes a break from the screen.
- Stay connected with your co-workers!

1.0 WORKSTATION DESIGN & LAYOUT

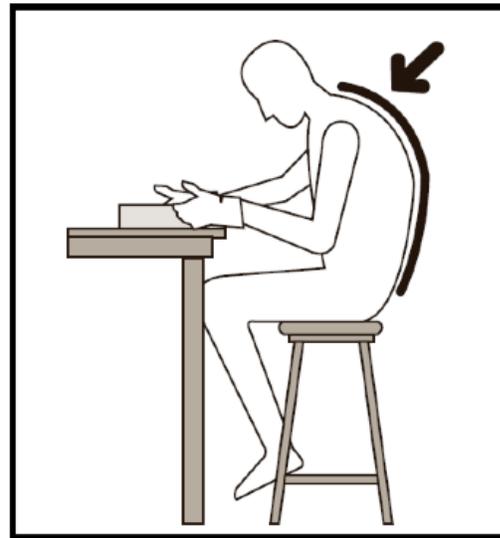
The following information outlines how to incorporate the best workstation design and layout to maximize your comfort and minimize musculoskeletal injuries.

1.1 Work Surfaces (Desks)

The work surface is the desk, table, or bench where the task is being performed. If the work surface is too high or too low for the body and the task being done, then the individual is required to perform the tasks in an awkward body position. The chair and/or work surface height should be adjusted properly to suit the individual and the type of work.

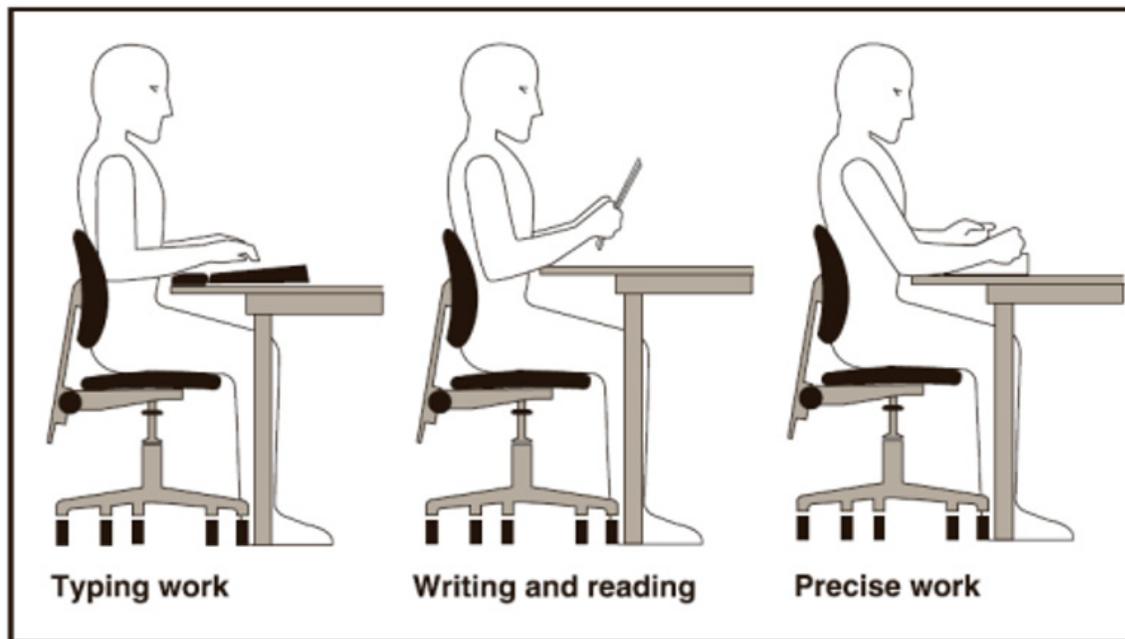


Good body position



Awkward body position

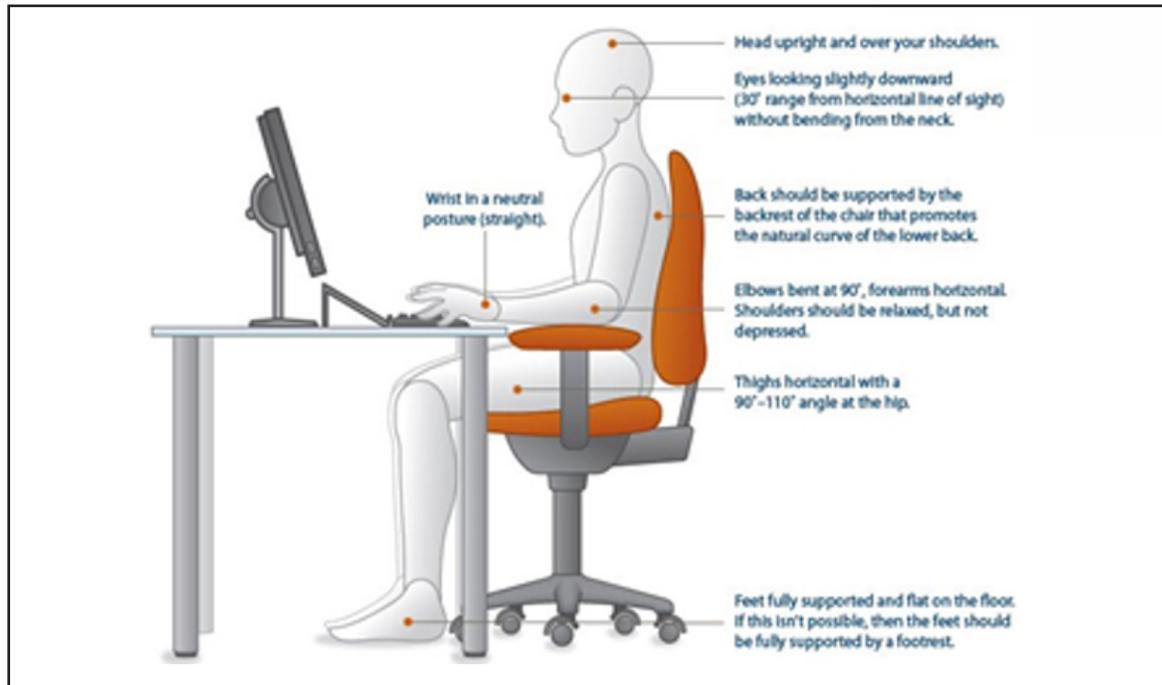
For typing and keyboarding, the work surface should be about the height of the elbows with the arms hanging straight by the sides. For writing and reading, the work surface should be about 5 cm (2 inches) above elbow height.



If the work surface is not adjustable, then the seat height should be adjusted so that the elbows are about the same height as the top of the work surface. The thighs should be horizontal. If the feet are not resting flat on the floor, use a footrest.

- **MAKE** adjustments so work surface is at the correct working height
- **ENSURE** that work surface is large enough to hold the materials needed
- **AVOID** cramping legs under a work surface
- **AVOID** over-reaching and twisting
- **STORE** frequently used items within easy reach
- **DO NOT STORE** materials under the work surface

1.2 Setting up your Workstation



For an enlarged version of this diagram go here:

<https://www.worksafebc.com/en/resources/health-safety/books-guides/how-to-make-your-computer-workstation-fit-you?lang=en>

1.2.1 Chairs

A well-designed chair allows a user to sit in a balanced position. Having an ergonomic chair is a good beginning to having a proper workstation set up but it is only one of the components to be considered. Ergonomic chairs are designed to suit a range of people, however there is no guarantee that they will suit anyone person in particular. A chair becomes ergonomic only when it specifically suits a worker's size (body dimensions), their particular workstation and the tasks that are performed there.

When choosing a chair there are some features that are mandatory for a good chair regardless of how you intend to use it. They are:

- **Adjustability** – Check to see the chair is adjustable.
- **Seat height range** – Check whether the seat height can be adjusted to the height. recommended for the workers who will use it. Other chairs may have to be selected for very short or very tall workers.
- **Backrest** – Check to see that the backrest is adjustable both vertically and in the frontward and backward direction and has a firm lumbar support.
- **Seat depth** – Select the seats that suit the majority of users.
- **Stability** – Ensure the chair has a five-point base.

1.2.2 Adjusting the Chair

Different tasks will require different equipment, accessories, and layouts. However, the process for adjusting the chair remains the same for many set-ups in a typical office environment.

There are four main components to adjusting an office chair. They are:

- seat height
- backrest
- seat pan
- armrests

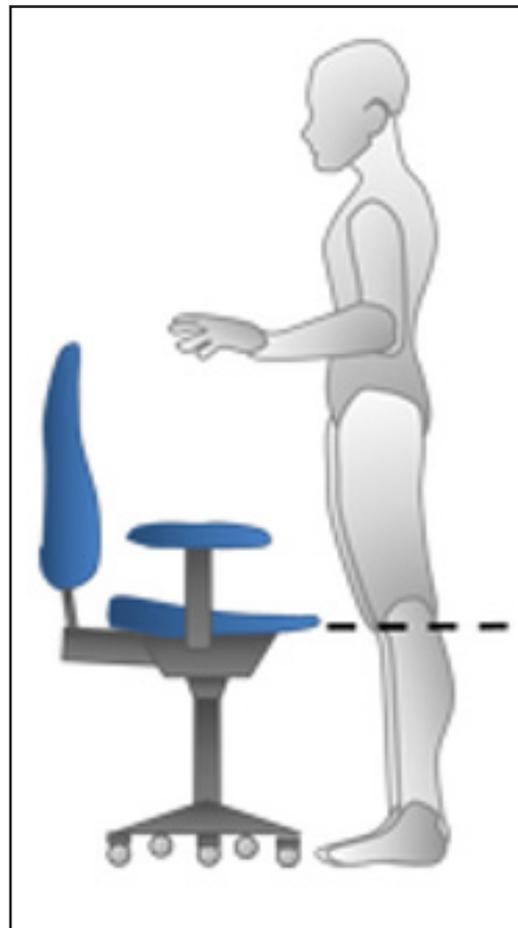
The best resource is to find the manufacturer's videos on how to set up your specific chair. If you are unsure, try and follow these steps:

1.2.3 Adjusting the Seat Height



To adjust your chair to the optimal height, raise or lower it so you are sitting with your:

- Forearms held horizontally, elbows bent about 90 degrees (right angle), with your elbows just clear of the top of the work surface (desk or keyboard tray)
- Thighs should rest horizontally with a 90-110 degree angle at the hips
- Wrist straight when you place your hands on the keyboard or mouse
- Feet flat on the floor. If your feet are not flat on the floor, use a footrest to create the ideal angles



1.2.4 Adjusting the Backrest

The lower part of your chair's backrest (the lumbar support) should support the natural curve of your back. If your backrest is adjustable, raise or lower it so the lumbar support fits snugly against your lower back. If necessary, you can place a small foam pillow in the curve of your back to add support. You should be able to adjust your backrest forward and backward, so it is an angle of 90-110 degrees, depending on the activities you are performing.

1.2.5 Adjusting the Seat Depth/Seat Pan

When sitting, the seat pan (the part of the chair you sit on) should allow you to use the back support without the front of the seat pressing into the back of your knees. If the seat pan is too deep, try a back support or lumbar pillow to reduce the size of the seat pan. Some chairs have adjustable seat pans. The adjustment is usually located under the front of your chair or on the side. When adjusting your seat pan, it is recommended to have 2-3 fingers width of distance between the seat and your knees.

1.2.6 Adjusting the Armrests

Armrests help support your forearms or elbows, decreasing the stress on your shoulders and back. Your forearms should rest comfortably on the armrests with your shoulders relaxed. If they do not have the ability to adjust them to the correct position, lower them to keep them out of the way so it does not create any undue stress on the arms and shoulders.

Remove armrests if they:

- Prevent you from placing your chair at a comfortable typing or viewing distance from the screen.
- Interfere with typing or using the mouse.
- Prevent you from turning your chair or getting up from your chair easily.



1.2.7 Adjusting the Seat Tilt

Seat tilt can be adjusted to improve your comfort. This will also affect your weight distribution. A tilt of five degrees is usually recommended.

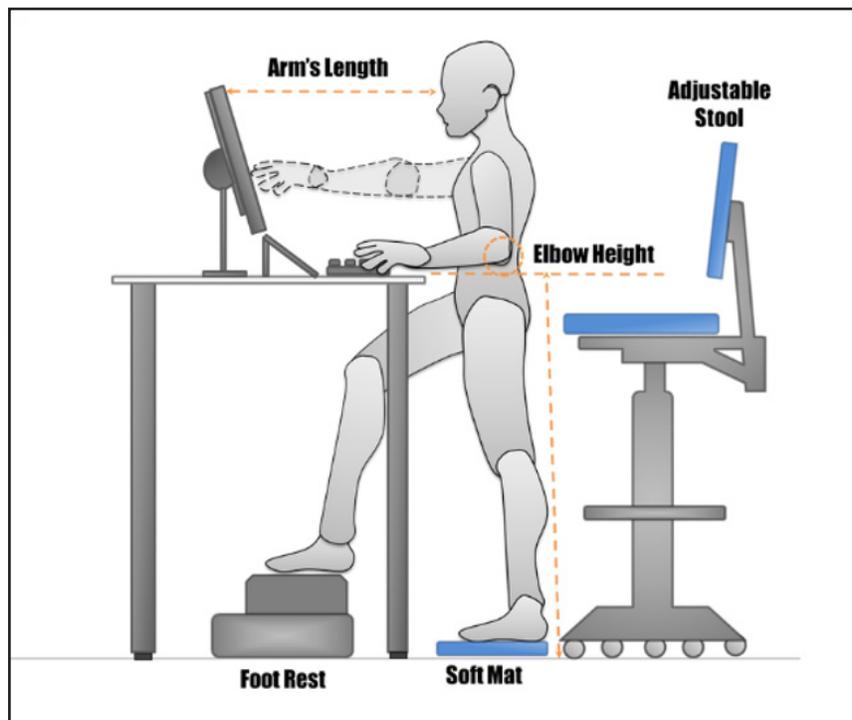
1.2.8 What is the best posture for my workstation - sitting or standing?

The best option for users who face long hours of sedentary work is to use a combination of sitting and standing. The human body responds best to a balance between static and dynamic activity, between activity and recovery, between sitting and standing. You must move, and you have to be supported in safe postures. You should balance your day.

1.2.9 I have a standing workstation, what can I do to maintain a healthy lifestyle?

- Make sure your standing table height is approximately at your standing elbow height.
- Use a supportive adjustable stool or ergonomic chair to sit periodically.
- If you are using a stool, make sure to obtain an elevated footrest as well.
- Make sure the keyboard/mouse height and monitor height are all ideal in both sitting and standing postures.
- If available, stand on an anti-fatigue mat.
- Wear supportive shoes or bare feet/socks if at home.
- Remember to alternate postures. Use a timer if it is hard to remember when to sit.
- Sit for 1 hour, stand for 5 minutes.

Pay attention to how your body is responding, and make sure you change your position frequently.



1.2.10 Are exercise ball workstations a good alternative?

Exercise balls or ball chairs are not recommended as a replacement for a good ergonomic office chair. These balls can be used for some temporary sitting possibly to help with some core strengthening, but they fail to provide any back support, especially in the lumbar region, which is an essential component of an ergonomic chair. Also, a chair seat pan should be made of a breathable material to transport heat and moisture away from the body, but the material of a ball is non-breathable. Finally, exercise balls are not stable and require proper inflation, which can lead to slips, falls and even fractures of bones.

1.3 Footwear

When standing it is important to wear appropriate footwear. Follow these tips when deciding on what footwear to use when working at a standing desk:

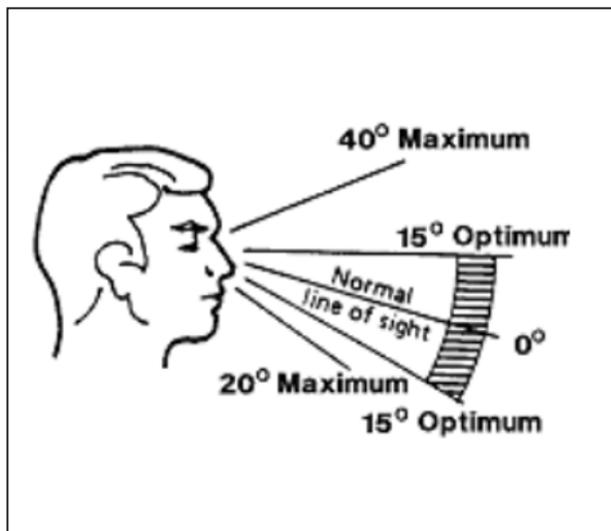
- Wear shoes that allow freedom to move your toes. Pain and fatigue can result if that shoes are too narrow or shallow.
- Ensure shoes have arch supports. Lack of arch support can cause flattening of the foot.
- Do not wear shoes with heels higher than 2 inches.
- If working from home, barefoot or socks are fine.

1.4 Monitors

If you work with a computer, you should have your eyes tested about every two years, or more frequently if you are experiencing problems with your vision. Keeping your screen at the optimal height and viewing distance will help prevent or reduce eye strain and muscle tension in your neck, shoulders, and upper back.

1.5 Screen Height

The top line of text on your computer (not the top of the monitor) should be at eye level. Most of the screen will be slightly below eye level. If you do not have an adjustable monitor support, adjust the monitor height by placing stable, stackable materials underneath the monitor to bring the top of the screen to eye level. An adjustable monitor support is handy if you share the monitor.



1.5.1 Viewing Distance

The monitor should be placed an arm's length distance away from the worker when you are sitting in typing position. Your ears should be in line with your shoulders when you view the monitor. If the words on the screen are too small, it is better to enlarge the font rather than bring the monitor closer to you.

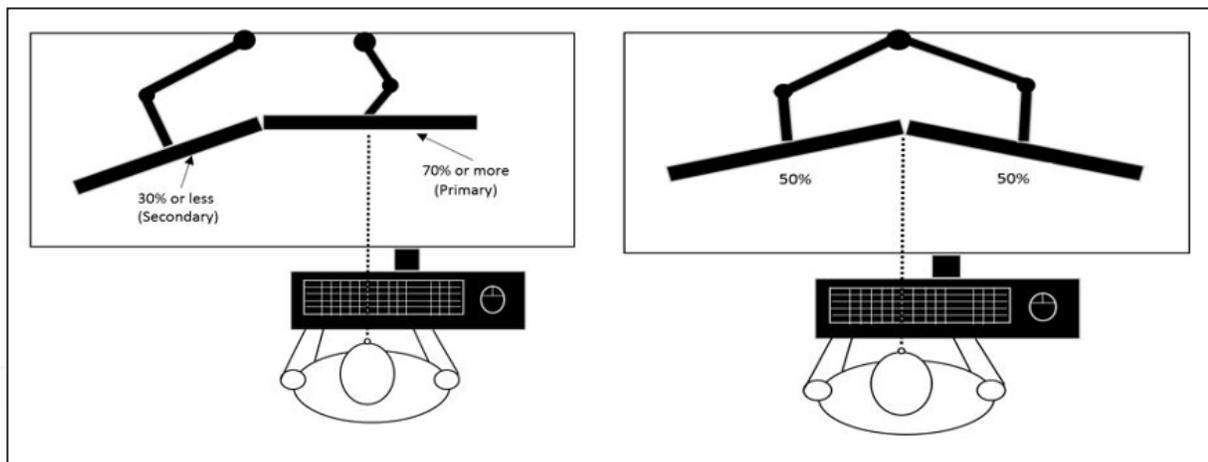
1.5.2 Dual Monitors

Generally, if you have 2 monitors position them slightly further away than arm's length to increase your field of view. Place the monitor with the most frequently used information in the direct line of sight, and less accessed data on the secondary monitor and angle it inwards. If both monitors are used equally, center yourself with both and angle them in slightly to reduce side-to-side neck twisting.



Consider the following when setting up a dual-monitor workstation:

- Place both monitors at the same optimal height as for a single monitor.
- Make sure both monitors are no closer than arm's length away to avoid excess neck rotation. If necessary, increase the font size so you can place each monitor at least an arm's length away from you.
- Position your main monitor so it is straight in front of you and in line with your keyboard and chair. Position your second monitor right next to the main monitor.
- If you use both monitors equally, place them side by side and adjust your body, keyboard, and mouse so your body and neck are straight.
- Increase your mouse speed to reduce the amount of movement required to move the cursor across both screens.



1.5.3 Prescription Eyewear

Eyeglasses or contact lenses prescribed for general use may not be adequate for computer work. Prescription lenses can be made to maximize vision and comfort when working at a computer, either as glasses specifically for computer use or as bifocal or multifocal glasses.

To determine your visual needs for working with a monitor, your ophthalmologist or optometrist will need the following information:

- Measurements from your eyes to the monitor screen, work documents, and keyboard. For more accuracy, have someone else take these measurements.
- The size of the screen — Measure diagonally across the screen and add on approximately 2–3 cm (1 in.).
- A description of your job tasks — Describe your daily routine at the computer and how much time you spend each day at different tasks.
- A description of the programs used — Mention whether you use text or graphics programs and describe typical type sizes and screen background colors.
- Type of lighting — describe the lighting you work under (for example, natural light, fluorescent light, or lights under a cupboard or shelf).

If you are wearing glasses that were not specifically corrected for computer use, there are still ways to improve your vision and comfort at the computer. For example, bifocals are made for regular reading distances. However, most people place their computer screens farther from their eyes than they would place a book or other printed materials. When you view the screen through bifocals, you are likely tilting your head back to look through the bottom of your lenses. This can result in eyestrain and awkward neck and upper back postures.

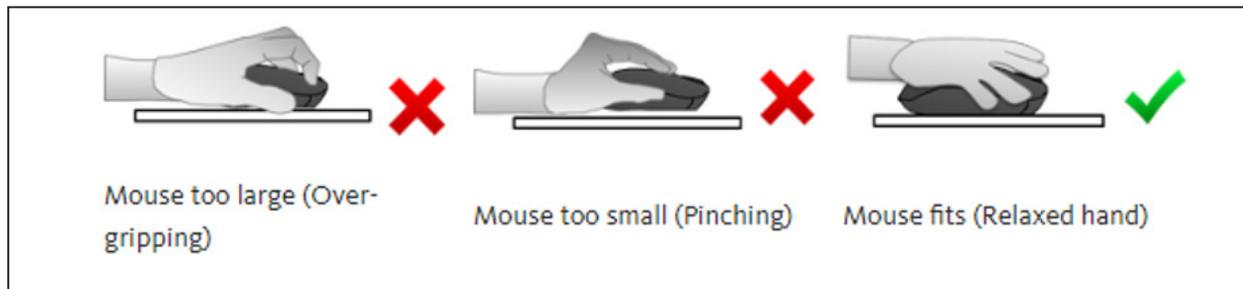
You could try lowering your screen so that you can hold your neck in a more comfortable posture. You can also tilt the screen upward slightly but watch for glare on the screen. If you continue to be uncomfortable after lowering your screen, prescription eyewear specifically for using your computer may help.

Eye lubrication affects your comfort when using a computer and is especially important if you wear contact lenses. You do not blink as often at the computer as you do when reading items on paper. A dry office environment and the air quality can increase eye discomfort from this staring effect. You can help relax your eyes by focusing on distant objects and occasionally getting up from your workstation. You should also try to blink more often, and perhaps use eye drops recommended by your eye doctor.

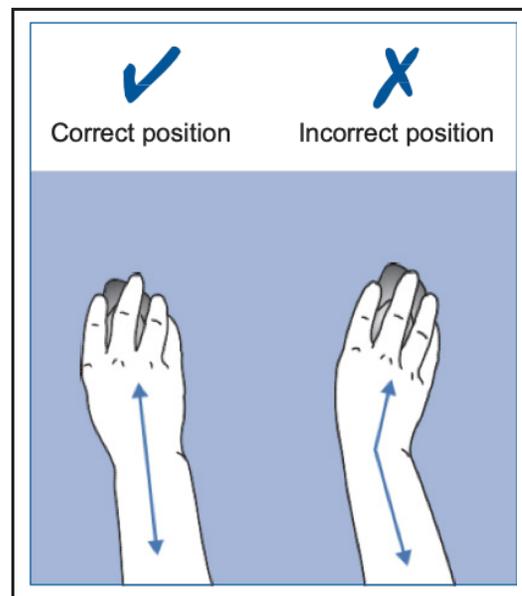
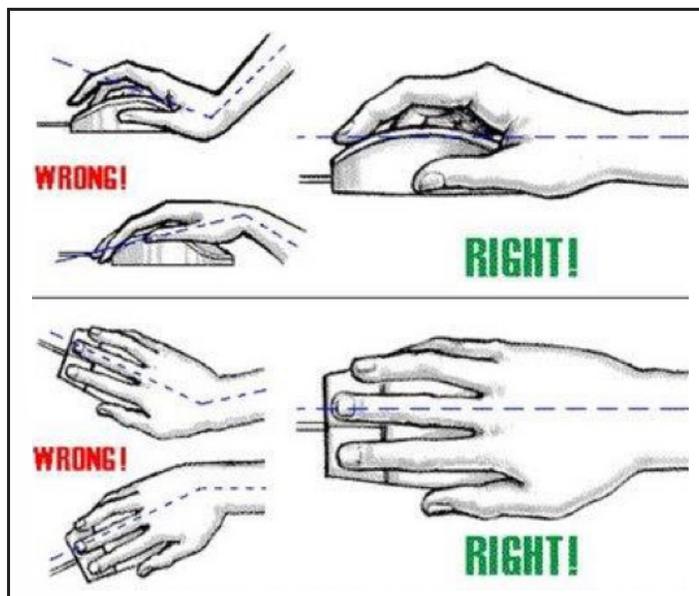
1.6 Mouse

1.6.1 Selection and Use

The mouse is an important tool for any computer task. The mouse should fit your hand so there is an appropriate size where your hands are not either pinching or spreading your fingers too far apart to use the mouse. Pinching can lead to discomfort developing in your fingers and wrist area. While over gripping can lead to discomfort in your wrist and elbows. You can easily check the size of your mouse by putting it in your hand and seeing if you can see too much or too little of your palm.



There are many different designs of computer mice available. Employees should be allowed to try different models and see which suits their needs. A battery-powered cordless mouse is highly recommended because there is no cord to get in the way.

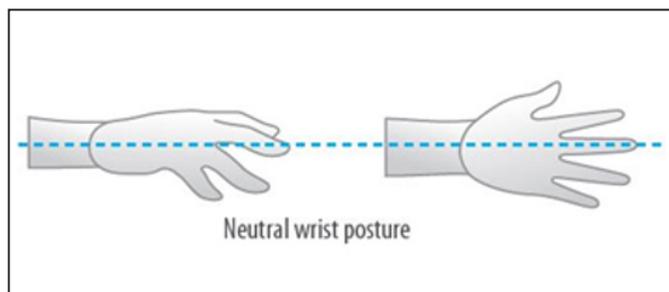
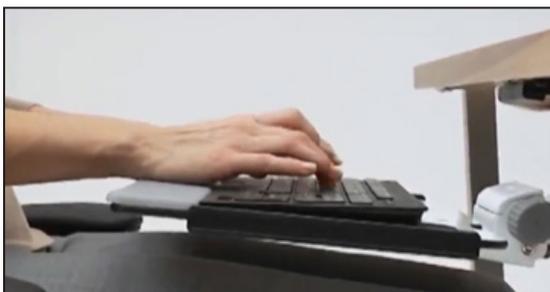


1.6.2 Reducing the risk of sore muscles, fatigue or injury when using the mouse

- A well-designed workstation with a properly selected computer mouse helps prevent discomfort and injury. Follow the suggestions below for the safest way to use the mouse and prevent such problems.
- Do not squeeze the mouse. Hold it loosely in your hand with a relaxed grip. A tight grip will not help you position the pointer any better or faster.
- Keep your wrists straight. Your forearm, wrist, and fingers should all be in a straight line.
- Keep your mouse at the same height and directly beside the keyboard.
- Make sure you have enough space to move the mouse freely.
- Avoid bending your wrist back to either side. Use a full arm motion from the shoulder when guiding the mouse.
- Take your hand off of the mouse when you are not using it.

If you are having difficulties with your mouse, consider these options:

- Use the mouse with your non-dominant hand
- Use a keyboard that has the number pad on the left side or use one without a number pad
- Use a different type of mouse or pointing device.
- Use the shortcut and function keys on the keyboard instead of the mouse whenever possible.
- Using a wrist rest puts more pressure on the carpal tunnel in your wrist, which can cause painful Carpal Tunnel Syndrome (CTS). Using a wrist rest also restricts the flow of blood to and from your hand. Ensure this is the right choice for you. Keep the mouse clean. If the mouse becomes jumpy or less sensitive, the problem may be a build-up of dust on the rollers.



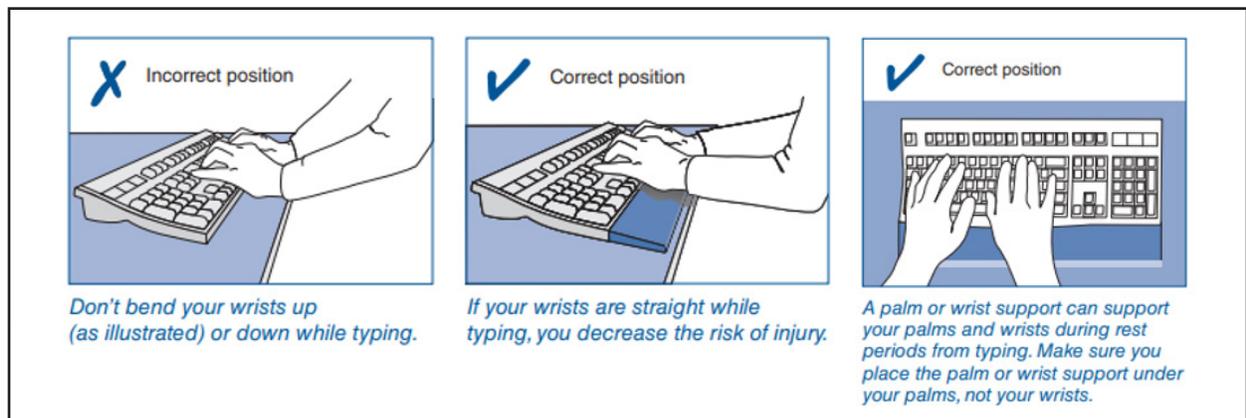
1.7 Keyboards

If your keyboard is adjusted properly, you will be able to keep your wrists straight while typing. This is a posture that may decrease the potential for injury.

To obtain the optimal keyboard height, follow these guidelines:

- Adjust the keyboard surface up or down so that your wrists are straight when your fingers are on the middle row of keys.
- If your keyboard surface does not adjust this way, raise, or lower your chair until you can hold your wrists straight while touching the middle row of keys. Your work surface should be just below your elbows, and your forearms should be parallel to the floor, with your elbows at your sides.

You can also make a slight adjustment to the keyboard angle and height by folding the small legs, found on the underside of most keyboards, in or out. In most cases, you will need to keep the legs folded in to keep the keyboard flat and prevent bending of your wrists.

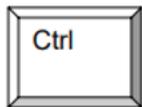


1.7.1 PC Keyboard Short Cuts

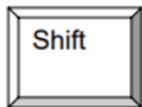
PC KEYBOARD SHORTCUTS



Esc	cycles through open programs
Tab	cycles through open applications
Spacebar	Control menu (maximize, minimize, close, etc.)
Hyphen	opens the window's control menu
F4	closes open window
Left, right arrows	Back/forward on web



A	select all	T	hanging indent
B	bold font	U	underline
C	copy	V	paste
D	change font	W	closes file
E	center alignment	X	cut
F	find	Y	redo
G	go to	Z	undo
H	replace	1	single space
I	italic font	2	double space
J	justify	5	1.5 line space
K	insert hyperlink	[decrease font
L	left alignment]	increase font
M	tabs five spaces	Esc	Windows menu
N	new document	Enter	page break
O	open file	Space bar	select an Excel column
P	print	Home	top
Q	resets tab on ruler	End	bottom
R	right alignment	Shift + arrow	select word
S	save	F2	print preview
S/	save as		



Tab	moves cursor backward
Page up	highlights cursor position to the beginning of the line
Page down	highlights cursor position to the end of the line
F7	thesaurus

Other Keys

F1	help	Windows Key	Start menu
F5	find and replace	Windows Key+D	Go to Desktop
F7	spell/grammar check	Shortcut key	Shortcut menu

More Microsoft shortcuts → <http://www.microsoft.com/enable/products/keyboard.aspx>

NOTE: Custom keyboard shortcuts can be created by going to:
Tools → Customize → Keyboard

1.7.2 MAC Keyboard Short Cuts

MAC KEYBOARD SHORTCUTS

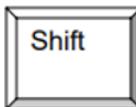


Option + Esc	Force quit
Tab	cycles through open applications
F4	close document
Control + F2	control the menu bar with the keyboard
Control + F3	control the dock with the keyboard
Left, right arrows	Back/forward on web

NOTE: The following shortcuts apply primarily to Microsoft Office applications for the Mac



A	select all	S	save
B	bold font	T	hanging indent
C	copy	U	underline
D	change font	V	paste
E	center alignment	W	closes file
F	find	X	cut
G	find next	Y	redo
H	replace	Z	undo
I	italic font	1	single space
J	justify	2	double space
L	left alignment	5	1.5 space
M	minimize	/	Help menu
N	new document	Home	top
O	open file	End	bottom
P	print	F2	Print Preview
Q	quit	Option + L	Spell check
R	right alignment	Option + R	Grammar check



Apple keyboard icon + Return	page break
Tab	moves cursor backward
Page up	highlights cursor position to the beginning of the line
Page down	highlights cursor position to the end of the line

Other Keys

F1	undo	Option	Shortcut menu
F7	spell/grammar check		

NOTE: Custom keyboard shortcuts can be created by going to:
Tools → Customize → Keyboard

More Mac OS shortcuts → <http://docs.info.apple.com/article.html?artnum=75459>

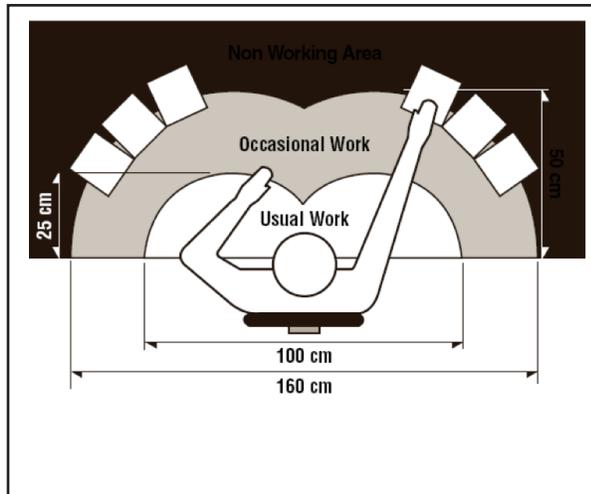
1.8 Footrests

A footrest supports your feet and reduces the pressure on the back of your thighs that can occur when your thighs contact the seat. Use a footrest if your feet are not flat on the floor when you adjust your chair height as described above. The correct height of the footrest is the distance your feet are off the floor after you have adjusted the seat height.

A footrest should have:

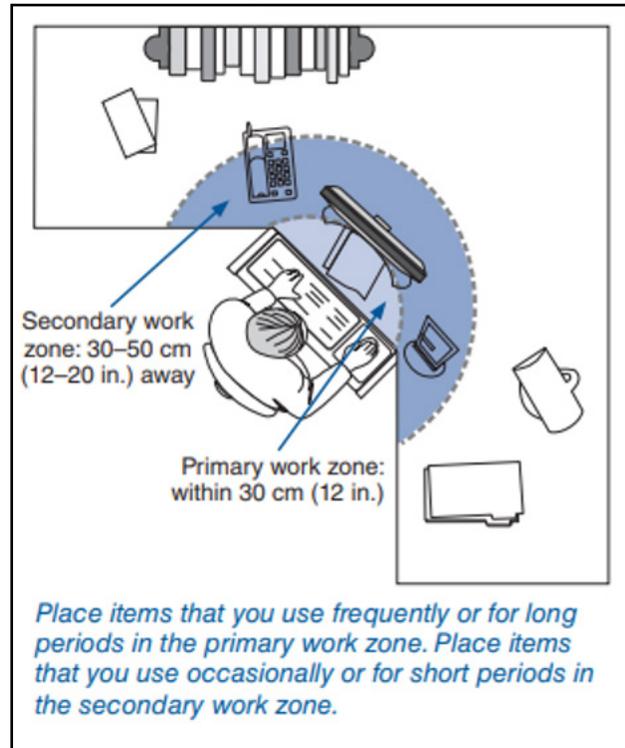
- A non-slip surface large enough for both feet to rest comfortably. (about 30cm by 30 cm or 1 sq.ft.)
- An adjustable slope (10-20 degrees) to allow a comfortable ankle position when your feet are resting on it.
- Enough stability so it does not slide or move around when your feet are on it. (Rocking is okay)

2.0 WORKSTATION LAYOUT



2.1 Organization of the Work Area

How you arrange your phone, reference books, pens, documents, and other work materials can affect your comfort. If materials that you use are often too far away, repetitive reaching can add to the neck, shoulder, and upper back discomfort.



Organizing your work and materials and accessories into primary and secondary work zones improves efficiency, creates more working space, and reduces the distance and frequency of reaches. This primary work zone is your usual work area and is within easy reach – up to 30 cm (12 in.) from you. Place frequently used items in this area. Arrange them around you like a semi-circle.

The secondary work zone is the area of occasional use that is 30-50 cm (12-20 in.) from you. Put items that you use occasionally or for short periods in this area. Keep materials and equipment that you use very infrequently in the area beyond the secondary zone.

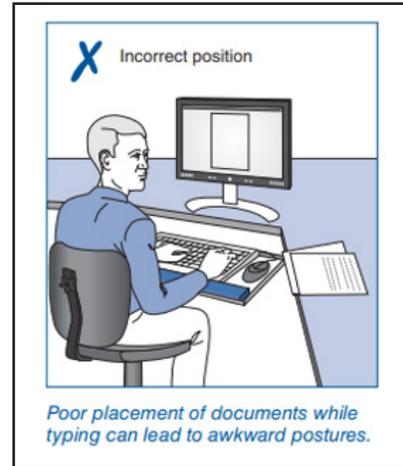
2.2 Floors

- Keep work areas and floors clean to avoid tripping hazards
- Avoid standing on concrete or metal floors for a long time
- Ensure that the floors are level and non-slippery'
- Cover concrete or metal floors with mats. Slanted edges on mats help prevent tripping.
- Do not use thick foam/rubber mats. Too much cushioning can cause fatigue and it becomes a tripping hazard.

2.3 Documents

Computer work often involves entering information from source documents. These should be located beside the screen and in the same plane. This reduces the size and amount of head and eye movements between the document and the screen and decreases the likelihood of muscular and visual fatigue. For example, if your documents are flat on the work surface or far to the left or right of the screen, you may have to hold your head in an awkward posture for long periods to read the document; or you may have to repeatedly move your head up, down, or sideways between the document and the screen. The best way to position documents correctly is to use an adjustable document holder. See "Placement of Documents".

If your work is mostly data input, move the monitor to one side and place the document in front of you, at the same height and viewing distance as the monitor. If the document is too heavy or large for a standard document holder, you can improve the viewing angle and distance by using a binder or some other object on your desk to prop the document up. You can also purchase stands designed for large documents.



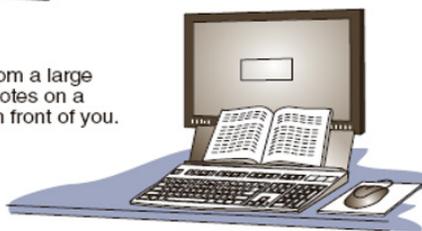
2.3.1 Placement of Documents

If you need to look back and forth from the screen to the documents, place your hard copy on a document holder, close to and at the same height and viewing distance as the monitor.



For data input, move the monitor to one side and place the documents in front of you.

When inputting data from a large document or making notes on a document, prop it up in front of you.



2.4 Storage

Workstation storage areas include overhead cupboards, bookshelves, filing cabinets, and desk drawers. Use storage areas for items that you use very infrequently — not for items that you use regularly.

Getting materials from your storage areas should not involve undue twisting, stretching, heaving, or lifting of heavy objects. To minimize lifting, store heavy objects such as large reference manuals near waist level. This will also help you avoid excessive reaching and twisting to get objects from overhead shelves or cupboards.

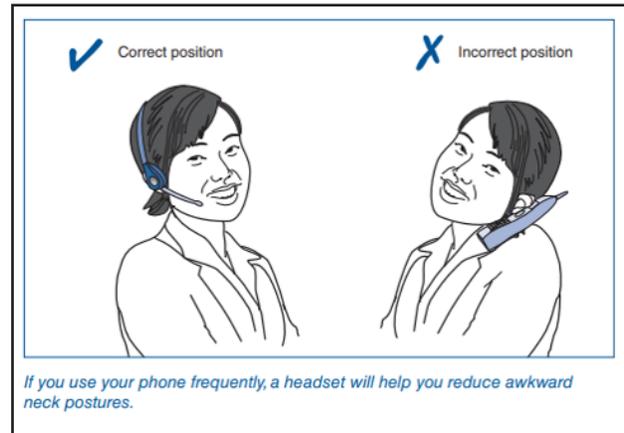
If you store materials under your desk, do not clutter your leg space. You need room under your desk to vary your leg posture throughout the day. It is awkward to place materials under a desk and remove them, so try to avoid this practice.

2.5 Telephone Work

Increasingly, workers are required to use a keyboard while on the telephone. This often results in awkward head, neck and back postures with the receiver cradled between the shoulder and head to leave both hands free.

Workers required to use a computer while on the telephone for long periods tend to experience discomfort, particularly in the head and back. In such cases, headsets should be used. Hands-free phones are also an option, where the office space and task are appropriate. A spacer or cradle that mounts to the handset is not a preferred option.

Although it improves the head position, a static effort is still needed to hold the handset in place. If you do use your phone frequently, place it close to you to reduce repetitive reaching.



2.6 Laptops or Notebook Computers

Laptops/Notebooks are widely used as they are very convenient to transport and take up less space than traditional desktops. However, they are more difficult to adjust for good working postures. Consider using separate components when you are using a laptop computer at your workstation. For example, you can use the laptop screen as your monitor and attach an external keyboard and mouse. Using separate components allows each one to be independently adjusted.

If you are unable to use external components, consider the tasks you will be working on and adjust accordingly:

- When reading lengthy documents, raise the screen to eye level to avoid bending your head downward.
- When typing intensively, lower the keyboard so that your elbows just clear the tops of the work surface, your arms are by your sides with about a 90-degree angle at the elbow, and your wrists are straight.
- Take a break from your laptop. Do other jobs that do not involve using a computer. It is better to take several short breaks, where you can change your posture, rather than one long break.

2.6.1 Tips for Using a Laptop Computer

Occasional Users

- Find a chair that is comfortable and that you can sit back in.
- Position your laptop in your lap for the most neutral wrist posture.
- Angle the laptop so that you can see the screen without bending your neck.

Full-time Laptop Users

- Position the laptop on your desk in front of you so that you can see the screen without bending your neck.
- Use a separate keyboard and mouse. You should be able to connect a keyboard and mouse directly to the back of your laptop.
- Use a negative tilt ergonomic keyboard to ensure a wrist neutral posture.
- Place the mouse on an adjustable position mouse platform.
- Follow the posture guidelines for working on a computer workstation.

3.0 POSTURE

Posture is the position or carriage of the body in a sitting or standing position. It is very easy to have poor posture when sitting or standing at a computer workstation. Even good posture when held for long time can lead to fatigue and discomfort.

The position of workstation equipment has to be taken into consideration when initially designing a new workstation to prevent future problems. An attractive workstation should not be the primary design criterion. The effects of postural discomfort should be considered in the design.

Why is good posture important?

- Optimize breathing and circulation.
- Maintain the bones and joints in the correct alignment so that muscles are being used properly and efficiently.
- Help reduce or prevent the abnormal wearing of joint surfaces that could result in degenerative diseases, such as arthritis.
- Decrease the stress on the soft tissues, such as ligaments, muscles, tendons, and discs.
- Prevent the spine from becoming fixed in abnormal positions.
- Prevent fatigue because muscles are being used more efficiently, allowing the body to use less energy.
- Prevent postural strain or overuse problems.
- Prevent neck or back pain.
- Prevent muscle fatigue.
- Contributes to a healthy image or appearance.

Does seated work pose an increased risk for injury?

Maintaining any one posture continuously for a prolonged period of time, whether seated or standing, can cause stress the body. To break up prolonged/monotonous postures, it is recommended to take routine micro breaks (~30 – 90 seconds) every 30 minutes to change posture and stretch.

Follow these helpful tips to good posture when sitting:

- Keep your back straight, maintain all 3 natural curves of your spine.
- Distribute the weight evenly on both hips.
- Keep your head and neck aligned over your shoulders.
- Sit back in your chair, your back should be supported by the seat back.
- Adjust your chair height so that your hips are slightly higher than your knees.
- Be sure your feet are supported by the floor or a footrest.
- Avoid sitting for long periods of time; get up from your chair at least once every hour.
- Do not twist or bend your back from a seated position.

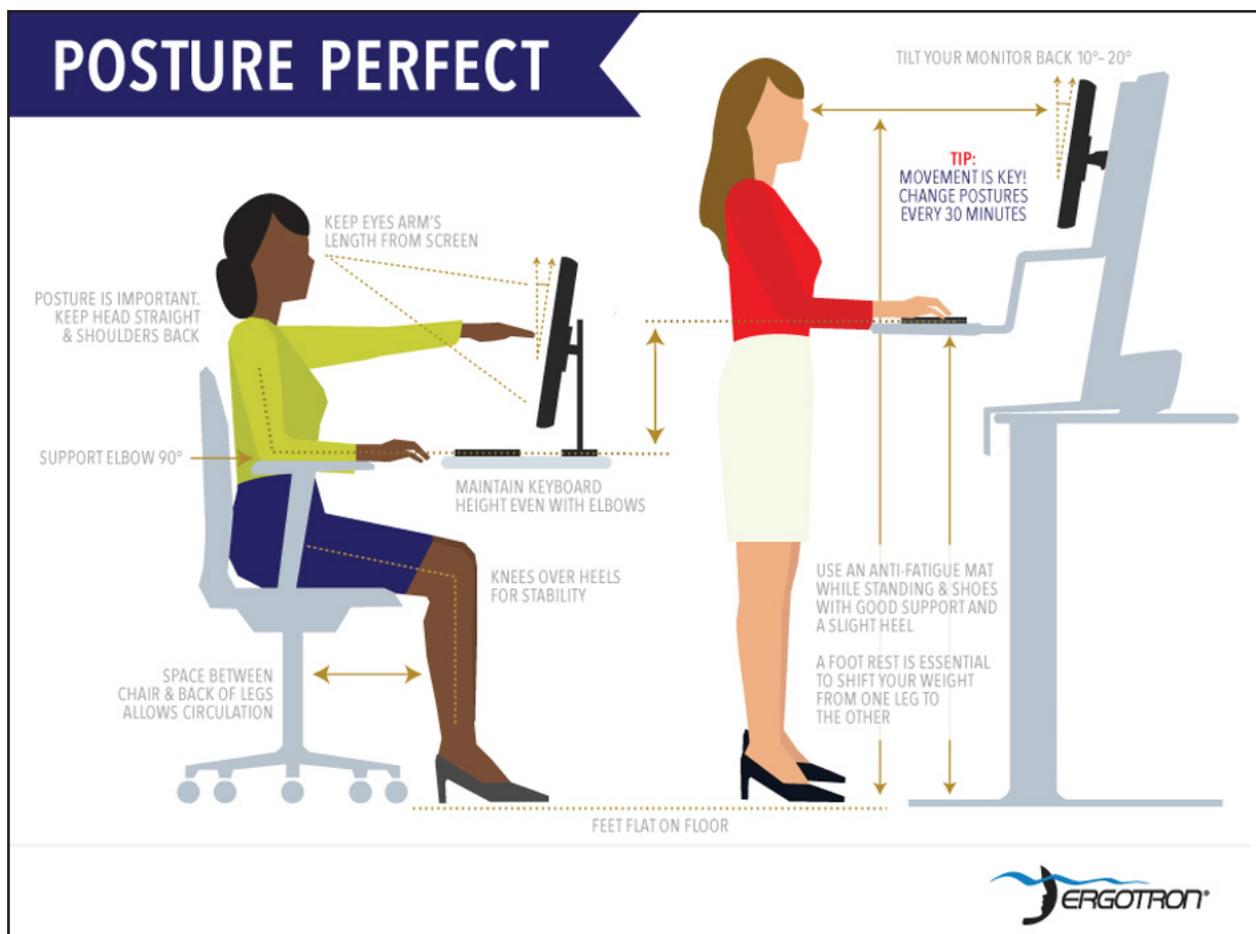
Follow these tips to maintain good standing posture:

- Bear your weight primarily on the balls of your feet.
- Keep your knees slightly bent.
- Keep your feet about shoulder width apart.
- Let your arms hang naturally down the sides of your body.
- Stand straight and tall with your shoulders pulled backwards.
- Tuck your stomach.

Tips to vary posture during office work activities

Stand while:

- Reviewing paper documents.
- Making phone calls.
- Instead of emailing, Facetime colleagues for face-to-face discussion.
- Retrieve documents from the printer/copy machine on a regular basis.
- Fill your water bottle halfway to increase trips to the water cooler/kitchen.



4.0 POTENTIAL CONCERNS & ISSUES

If any of the below effect you, and the tips above do not help, contact your supervisor.

CONCERN	POTENTIAL ISSUE
BACK SORENESS	<ul style="list-style-type: none"> • The chair may not fit you properly • The chair may not be correctly adjusted to your body • Leaning away from the backrest • Leaning to one side • Sitting for too long or with poor posture
NECK SORENESS	<ul style="list-style-type: none"> • The monitor may be too far away, too high, or too low • Cradling the telephone with your shoulder • Frequently reading documents flat on the desktop • Referring back and forth between documents and the monitor • Monitor glare • Wear bifocals or progressive lenses
SHOULDER SORENESS	<ul style="list-style-type: none"> • Reaching out to the side to access the mouse • Constantly switching between keyboard and mouse • Large screen monitor and slow moving mouse • Leaning on one armrest • The keyboard may be too far away, requiring elbows to leave the sides of the body
WRIST, HAND OR FINGER SORENESS	<ul style="list-style-type: none"> • Repeatedly clicking the mouse instead of using alternatives • Poor wrist posture • Clicking and dragging the mouse frequently • Legs of the keyboard are up resulting in a positive tilt to the keyboard

CONCERN	POTENTIAL ISSUE
SORENESS IN RING AND/OR PINKY FINGERS	<ul style="list-style-type: none"> • The mouse could be too big or too small • The mouse speed may be too fast
ELBOW/FOREARM SORENESS	<ul style="list-style-type: none"> • Performing a lot of hand and finger repetition • Holding fingers suspended over the keyboard or mouse instead of lightly relaxing them on top of them • Resting forearms against the work surface
EYESTRAIN / HEADACHES	<ul style="list-style-type: none"> • Insufficient lighting • Not taking vision breaks • Glare or dirt on the monitor
SORENESS / NUMBNESS IN LEGS OR FEET	<ul style="list-style-type: none"> • Sitting for more than an hour at a time • Tucking feet under the chair • The chair might be too high • The seat pan may be cutting into the back of the legs • Feet may not be adequately supported

5.0 COMPUTER & DESK STRETCHES

COMPUTER & DESK STRETCHES (Approximately four minutes)

Sitting at a computer for long periods often causes neck and shoulder stiffness and, occasionally, lower back pain. Do these stretches every hour or so throughout the day, or whenever you feel stiff. Photocopy this and keep it in a drawer. Also, be sure to get up and walk around the office whenever you think of it. You'll feel better!



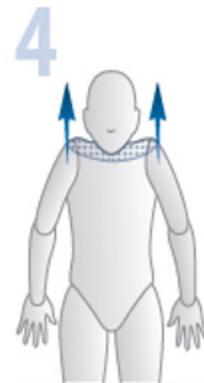
10-20 seconds, two times



8-10 seconds, each side



15-20 seconds



3-5 seconds, three times



10-12 seconds, each arm



10 seconds



10 seconds



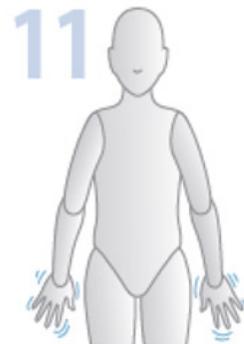
8-10 seconds, each side



8-10 seconds, each side



10-15 seconds, two times



Shake out hands, 8-10 seconds