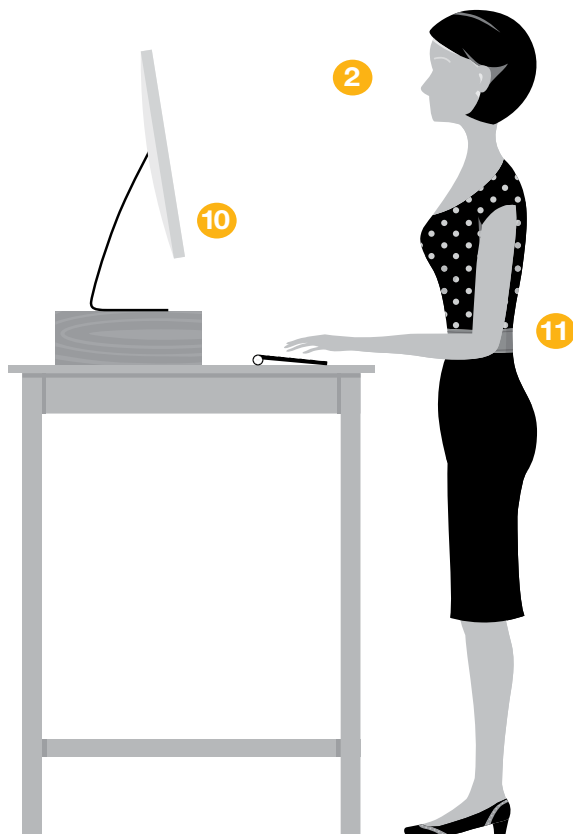


The Ergonomic Workstation



1. Top of viewable screen set at eye level.
2. Set screen 20" - 28" away from eyes.
3. Upper back straight with shoulders relaxed.
4. Arms relaxed at sides with upper arm and lower arm forming 90°-110° angle. Wrists straight with fingers relaxed.
5. Back rest of the chair supports curve in lower back.
6. Hips as far back on chair as possible.
7. Adjustable seat for optimal height.
8. Lower legs at a 90°-110° angle to thighs with adequate legroom above.
9. Feet flat on floor or on footrest.
10. Screen set at 10°-20° angle.
11. Workstation surface at elbow height.

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Adjustment Summary

Here's a summary of the various adjustments that you can make to your workstation.

The Chair

- Adjust seat height to permit correct adjustments for keyboard entry and monitor viewing.
- Backrest height to fit the "S" curve, just above the buttocks.
- Seat pan tilt slightly forward.
- With the employee's back positioned against the backrest, the front edge of the seat pan should be at least 2 inches from the back of the leg calf.
- Armrest height and width adjusted so that the worker's shoulders are relaxed when forearms are rested on the armrests.
- Provide a footrest if the chair needs to be raised and the feet are not flat on the floor.

The Keyboard

- Adjust the keyboard height so that the shoulders are relaxed and the angle formed at the elbow is 90 degrees for a "neutral keyboard" or slightly more if the keyboard is set at a negative tilt position.
- Fold the keyboard "legs" up into the keyboard so that the keyboard lays flat.
- Adjust the keyboard tray so as to achieve a slight downward tilt. The goal is to achieve a straight wrist while typing.
- Adjust the keyboard so that the letters B and N on the keyboard line up with the centerline of the torso.

The Monitor

- Adjust the monitor height so that the top of the viewable screen is set at eye level.
- Monitor should be set at a minimum distance that is equal to the diagonal of the monitor. If the employee cannot read the print on the screen, try to adjust the font size of the print on the screen. If this does not resolve the issue, move the screen closer to the employee.

The Mouse

- The mouse should be located immediately to the right or left of the keyboard depending on the dominant hand of the worker. Goal is to have the mouse as close to the body as possible.
- If the numeric keys are seldom used, a mouse platform placed over the numeric keys can be utilized to bring the mouse in closer to the center for a right hand dominant person. This will help reduce ulnar deviation of the wrist.
- The hand should be just above elbow level when resting on the mouse to reduce extension of the wrist.

Telephone and Data Entry

- When work activities require the use of a telephone while entering computer data or note-taking, using a headset will prevent the worker from "cradling" the handset between the head and shoulder. This will help prevent neck and shoulder injuries.

The Work Zone

- Primary work zone extends to ~ 14 inches and should be reserved for the most frequently used equipment. Locate the keyboard, mouse, documents and document holders within this zone.
- Secondary work zone extends from ~ 14 to 24 inches and should be reserved for items that are occasionally used.
- Tertiary work zone is where you locate rarely used items such as a calendar, photos, personal, and non-functional items.

CAUSE PRESENT?

SYMPTOM	YES	NO	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
Frequent headaches, eye strain	<input type="checkbox"/>	<input type="checkbox"/>	Inappropriate screen colors	<ul style="list-style-type: none"> Adjust screen distance from operator so print is easily recognizable Change screen color selections Anti-glare screen Conduct lighting survey Illumination on VDT and document holder should be checked Move document holder to same distance as monitor Rest eyes by focusing on object 20 feet or more away at least once an hour for 5-10 minutes (i.e., perform non-computer tasks, or take a break) Eye glasses
	<input type="checkbox"/>	<input type="checkbox"/>	Too much, or too little lighting	
	<input type="checkbox"/>	<input type="checkbox"/>	Glare on screen	
	<input type="checkbox"/>	<input type="checkbox"/>	Screen too far away	
	<input type="checkbox"/>	<input type="checkbox"/>	Document holder and monitor at different distances from user	
	<input type="checkbox"/>	<input type="checkbox"/>	Worker vision problem	
Pain on one side of neck/shoulder	<input type="checkbox"/>	<input type="checkbox"/>	Monitor to the side of operator	<ul style="list-style-type: none"> Position monitor, keyboard, and user in a straight line Place mouse adjacent to keyboard Provide headset if phone must be used to enter data Place telephone on non-dominant hand side Raise chair height Adjust lumbar chair support to fit in the small of the back
	<input type="checkbox"/>	<input type="checkbox"/>	Telephone cradled between head and shoulder	
	<input type="checkbox"/>	<input type="checkbox"/>	Mouse too far away	
Neck and shoulder pain	<input type="checkbox"/>	<input type="checkbox"/>	Monitor too low, or too high	<ul style="list-style-type: none"> Adjust monitor height Adjust distance to screen Lower keyboard Place mouse adjacent to keyboard Move chair closer to keyboard Raise chair height Adjust lumbar chair support to fit in the small of the back Keep materials within a 14" to 16" reach Keep materials below shoulder level Provide headset if phone must be used to enter data Do not lean forearms on desk
	<input type="checkbox"/>	<input type="checkbox"/>	Monitor too far away	
	<input type="checkbox"/>	<input type="checkbox"/>	Keyboard too high	
	<input type="checkbox"/>	<input type="checkbox"/>	Keyboard too far away	
	<input type="checkbox"/>	<input type="checkbox"/>	Mouse too far away	
	<input type="checkbox"/>	<input type="checkbox"/>	Materials too far away or too high	
	<input type="checkbox"/>	<input type="checkbox"/>	Lower back not supported	
Pain in fingertips	<input type="checkbox"/>	<input type="checkbox"/>	Hitting keys too hard	<ul style="list-style-type: none"> Lighter key stroking Track ball or alternative mouse
	<input type="checkbox"/>	<input type="checkbox"/>	Clicking mouse too forcibly	
Lower back pain	<input type="checkbox"/>	<input type="checkbox"/>	Lack of chair support for lower back	<ul style="list-style-type: none"> Adjust backrest to fit lumbar curve of the lower back Seat pan should allow the individual to sit back in the seat against the backrest Adjust seat height so thighs are parallel to the floor and knees at 90-110° angle Seat pan and backrest tilt should be adjusted Feet should rest on the floor or on a footrest
Numbness in lower legs	<input type="checkbox"/>	<input type="checkbox"/>	Seat pan too short causing direct pressure to underside of thighs	<ul style="list-style-type: none"> Adjust height of chair to keep thighs parallel to the floor, and knees at 90-110° angle Seat pan should allow 2-3 inches clearance between calf of the leg and forward edge of seat pan Provide seat pan with waterfall front edge Provide footrest
	<input type="checkbox"/>	<input type="checkbox"/>	Seat pan too long causing direct pressure to underside of knee joints	
	<input type="checkbox"/>	<input type="checkbox"/>	Feet not resting on floor	
Numbness in fingers; pain in wrists	<input type="checkbox"/>	<input type="checkbox"/>	Wrist resting on sharp edge	<ul style="list-style-type: none"> Maintain wrists in a straight or neutral position Lower keyboard or chair to maintain straight and neutral wrist position Adjust keyboard to tilt downward away from you Float hands when typing Avoid resting wrists on wristrest while typing Provide wristrest /palm rest Keep elbows in close to the body Keep mouse and other materials in front of you rather than to the side Try alternative mouse or track ball Adjust keyboard so forearms are sloping slightly downward, and wrists are straight when typing Avoid using armrests while typing or using the phone
	<input type="checkbox"/>	<input type="checkbox"/>	Wrist bent up or down or sideways most of the time	
	<input type="checkbox"/>	<input type="checkbox"/>	Gripping mouse too forcefully	
	<input type="checkbox"/>	<input type="checkbox"/>	Resting elbows on armrests	
Pain along outside or inside of the wrist	<input type="checkbox"/>	<input type="checkbox"/>	Deviating from neutral position while hitting certain keys or moving mouse	<ul style="list-style-type: none"> Move hand rather than deviate wrist

get a *clear way* forwardSM

Ergonomic Exercises for the Neck and Shoulders

Daily performance of these exercises for the neck and shoulders will help prevent stiffness at the base of the neck and relieve tension. It is important not to overstretch. Stop if there is pain or tingling in any muscle.

Neck Stretch



Grasp the right arm with the left hand just above the wrist. Pull the right arm down and across the body while tilting the head to the left. Hold 10-15 seconds and release. Repeat 3 times. (2 sessions/day)

Shoulder Roll



Sitting up straight, slowly roll both shoulders backward in a circular motion. Make the circle as large as possible. Do the same in the forward direction. Repeat 3 times in each direction. (2 sessions/day)

Upper Back Stretch



While seated, hold your right arm above the elbow with the left hand and gently pull the right arm across your chest toward the left shoulder. Do the same with both arms. Repeat twice on each side. (2 sessions/day)

Lateral Back Stretch



Reach behind your back with the right hand while gently grasping your head with the left hand. Tilt your head to the left until you feel a gentle stretch in the neck. Hold 10-15 seconds. Repeat twice on each side. (2 sessions/day)

Active Neck Rotation



Sit up straight with your feet flat on the floor. Tucking in your chin and keeping it level, turn your head slowly and fully to one side. Next, tilt your head toward your shoulder and look down to the floor. Repeat on opposite side. Repeat 3 times to each side, bringing your head to the upright, face forward position between each rotation. (2 sessions/day)

Ergonomic Exercises for the Hands and Wrists

Daily exercise of the hands, forearms and wrists can help eliminate stiffness and weakness and avoid common problems such as carpal tunnel syndrome. Remember never to overstretch the muscles.

Wrist Extensor Stretch



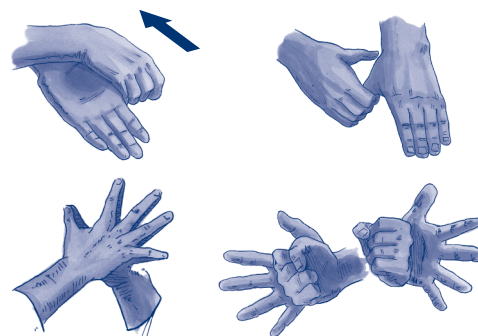
Extend both arms in front of you. Place the left palm on the back of the right hand and bend the right wrist gently downward. Hold 10-15 seconds. Repeat 2 times on each hand. (2 sessions/day)

Wrist Flexor Stretch



To stretch the muscles of the forearm and wrist, extend both arms directly in front of you while seated. Place the left hand on the fingers of the right hand and pull gently back to stretch the flexor muscles of the right wrist. Hold 10-15 seconds. Repeat 2 times on each hand. (2 sessions/day)

Thumb Stretch



To stretch the thumb muscles, extend your arm out straight with the palm up. Reach across the hand and gently pull straight back on the thumb. Repeat with the palm down. Grasp your thumb and pull gently back and down. Repeat 3 times. (2 sessions/day)

To relieve stiffness in the hands and fingers, touch the fingertips of both hands together. Spread the fingers and thumb as far apart as possible. Hold and relax. Repeat 3 times. To loosen the finger muscles, begin by slowly closing your hands into a tight fist. Squeeze and hold, then slowly open them into a wide and fully extended stretch. Repeat 3 times. (2 sessions/day)