

Appendix 23-B

Computer Workstation Checklist

The computer workstation checklist is one method available for performing computer workstation assessments. The checklist is designed to be printed as two double-sided pages (front and back). The first page sheet (page one and two) is an educational guide for the employee and is meant to be left at the workstation for the employee's reference. At the beginning of the assessment, the evaluator should define ergonomics and explain the proper-seated neutral position for a computer workstation. The second page sheet (page three and four) contains a checklist, which is intended to guide the evaluator and be kept for the evaluator's records. The checklist is designed to step the evaluator through the workstation evaluation. Answering an item on the checklist with "NO" indicates a potential ergonomics problem. Possible solutions to address the issue are indicated in the far right column.

Thank you for participating in an ergonomic computer workstation assessment.

Ergonomics is the science of fitting the workplace to the worker to reduce the risk of injury. In order to reduce your risk of developing Work-related Musculoskeletal Disorders (WMSDs), it is important to use your computer in a neutral posture. This will help prevent soft tissue WMSDs, such as Carpal Tunnel Syndrome and Tendonitis. The following illustration is a guide to setting up your computer workstation. The neutral posture is the optimal body position, which provides the greatest strength and control and minimizes stress. Even a neutral posture can be fatiguing if held all day, therefore micro-changes in posture and stretching are recommended (see page 2).

For more information or to report pain or discomfort you feel is associated with your job, please contact your Supervisor or Safety Officer who can refer you as needed to the Industrial Hygienist and/or Occupational Health Provider/Clinic.

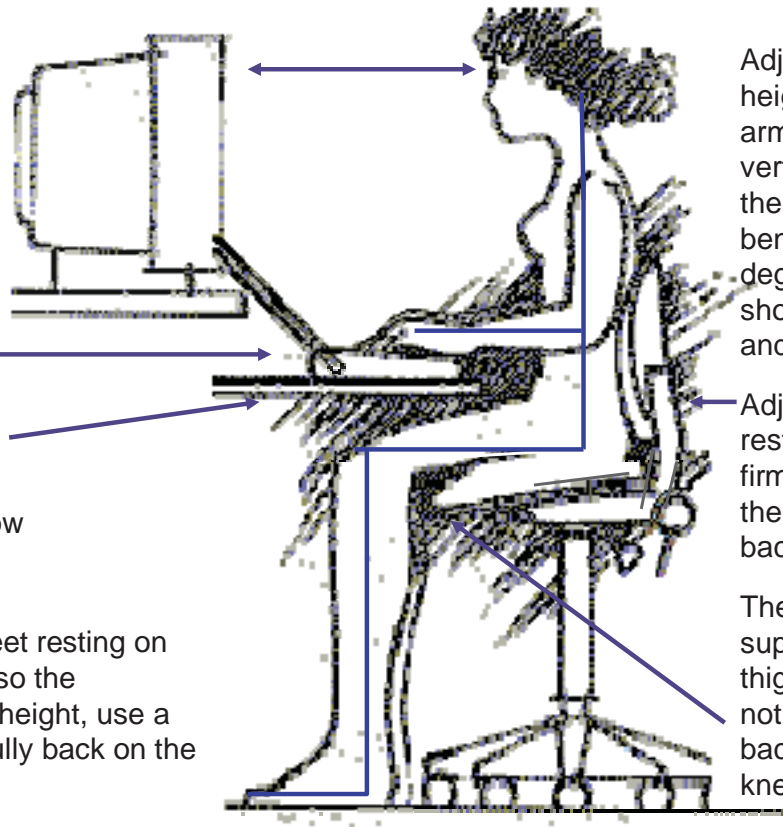
Neutral Posture for Computer Use

Position the monitor directly in front of you and about an arm's length away. The top row of characters on the screen should be no higher than seated eye height

Use a document holder close to the monitor

Mouse should be next to the keyboard, both at a height equivalent to your seated elbow height

Knees comfortably bent with feet resting on the floor. If the chair is raised so the keyboard height equals elbow height, use a foot rest to encourage sitting fully back on the chair



Adjust the seat height so upper arms hang vertically, close to the body, elbows bent about 90 degrees, shoulders relaxed and wrists straight

Adjust the back rest to provide firm support to the small of the back

The seat pan supports the thighs but does not contact the back of the knees

The information in the figure accommodates 90% of the population. Special considerations may be necessary some workers. Additional guidance can be found on the Navy Ergonomics Program Web Page <http://www.navfac.navy.mil/safety/site/ergo/ergonom.htm>

Tip: 1) Taking 20 second micro-breaks throughout the day to refocus your eyes will reduce fatigue at the end of the day. 20/20 rule: for every 20 minutes of work, rest the eyes 20 seconds.

TIME TO TAKE A COMPUTER BREAK

For every 20 minutes of computer use,
look at an object 20 feet away for
20 seconds. This reduces eyestrain.

1. Move your eyes side-to-side and top to bottom. This helps moisten your eyes and reduces eyestrain.

2. Close your eyes and gradually lower your head. This relaxes your eyes and neck.

3. Cup your eyes with your hands and close your eyes. Do not put any direct pressure on your eyes. This relaxes your face and moistens your eyes.

4. Extend your arms and fingers and rotate. This reduces stress on the upper extremities.

5. Rotate your ankle. This promotes blood circulation in your legs.

6. With your arms at your sides, shake your fingers. This relaxes your arms, hands and fingers.

7. While seated, elongate your back by pretending there is a cable attached to your head that is slowly pulling upwards. This will promote good posture and relieve some low back pain.

8. Shrug your shoulders. This eliminates stress from the shoulders and upper back.

Slowly pull your arms back as far as you can, trying to touch your shoulder blades together. This will reduce upper back stress.

Computer Workstation Checklist

OPNAV 5100/21 (2-05)

Evaluator:		Date:	
Employee Name:	Title:	Location:	Email:
Time in current position:		Phone Number:	
Percent of day (or hours per day) spent performing the following tasks:		Computer – Keying:	Mouse, Track ball:
Hours worked per week? _____ Is	workstation shared? Y / N	Telephone:	Writing: Other tasks:
Pain or discomfort, documented injuries, risk factors, etc:			

If the answer is **NO** to any of the following questions, there is a potential problem.

Y	N	Minimum and maximum recommendations accommodate 90% of the population. Special considerations may be necessary for the extremes and users with special medical conditions. Work Chair	Possible Solutions Circle if recommended
		Seat Height	
		Do the user's feet rest comfortably on the floor or a footrest with thighs parallel to the floor and hips at a height equal to or slightly above knee height? <i>Action:</i> If the workstation height is adjustable - adjust the chair so the user's feet rest comfortably on the floor/footrest. If the workstation is not adjustable raise the user to the keyboard height (refer to keyboard section) and use a footrest to encourage sitting back in the chair.	Footrest
		Seat Pan	
		Does the seat pan support the thighs? The user should be able to fit two fingers between the backs of the knees and the edge of the seat. The seat pan should not be significantly shorter or longer than the length of the thighs. <i>Action:</i> Adjust seat pan and/or adjust backrest. (Fixed seat pan maximum length 16.9")	Foot rest Lumbar support Different chair
		Does the seat cushion have a rounded front edge?	Different chair
		Is the seat pan wider than the hip breadth of the user to allow space for movement and clothing? (Minimum 18")	Different chair
		Backrest	
		Does the backrest provide adequate lumbar support and buttocks clearance without interfering with the user's movement? The most pronounced part of the backrest should coincide with the middle of the user's lumbar area (small of the back) between 5.9" to 9.8" from the seat pan. <i>Action:</i> Adjust backrest.	Lumbar support
		Is backrest wide and high enough to support the torso? (Minimum 14.2"	Different chair

	W x 12.2" H)	
	Armrests	
	Do the armrests adjust to a height that is comfortable for the user and avoids hunched shoulders (armrests are too high) or slouching (armrests are too low) while allowing the user to get close enough to perform the task while sitting back in the chair? The user should not plant his/her elbows on the armrests while typing. Armrests should be soft and pliable. <i>Action:</i> Adjust armrests or remove armrests if they are not adjustable and interfere with the task.	
	Do the armrests adjust to a width that comfortably fits the user's hips and allow the user to easily exit/enter a chair and perform his/her task? (Minimum separation 18") <i>Action:</i> Adjust armrests or remove if necessary.	
	Miscellaneous	
	Does the chair have a stable base supported by five legs with casters and swivel 360 degrees?	Different chair
	Does the chair roll easily (casters appropriate for the floor surface)?	Chair mat Different casters

Y N	Minimum and maximum recommendations accommodate 90% of the population. Special considerations may be necessary for the extremes and users with special medical conditions.	Possible Solutions Circle if recommended
	Work Surface	
	Is there adequate clearance beneath the workstation for the user to get close enough to the task, maintain freedom of movement, and not come into contact with obstructions such as table legs, filing cabinets, etc? (Height clearance for legs minimum 25", depth clearance for knees minimum 17") <i>Action:</i> Rearrange workstation, remove clutter/obstructions.	Different work surface Raise or lower work surface
	Are the computer monitor and keyboard in alignment with (directly in front of) the user? <i>Action:</i> Rearrange workstation.	
	Is the work surface with the keyboard positioned at seated elbow height? Seated elbow height is measured with the feet resting comfortably on the floor (or a footrest) and the back positioned against the backrest. The upper arms are close to the sides with elbows at a 90° angle. The seated elbow height is the distance from the floor to the bony protrusion on the elbow. <i>Action:</i> Adjust work surface, keyboard tray, or chair. If feasible, reposition a portion of the work surface used exclusively for computer tasks.	Height adjustable keyboard tray Leg lifters for desk Different work surface
	Is the mouse or other input device located at the same height as the keyboard (at elbow height) within close reach? When keying or using the mouse, the upper arms should be close to the body, elbows approximately 90 degrees with forearms parallel to the floor and wrists straight.	Mouse bridge or platform Keyboard tray. Alternative or wireless pointing

		device
	Are frequently used support equipment / materials (telephone, documents, references) within 14" to 18" with occasionally used items within 22" to 26"? Two-handed reach distances are shorter than single-handed reaches and reaches for items over 10 lbs. should be performed standing. <i>Action:</i> rearrange workstation.	
	Monitor	
	Is the monitor located about arm's length away from the user (min. 15.7")? Monitor distance depends on the user's eyesight and possible corrective vision use, and monitor depth. <i>Action:</i> Rearrange workstation.	Suggest employee see personal eye care specialist Larger work surface
	Is the monitor height (measured from the top row of characters on the screen) at a height equal to or 20° below the user's seated eye height (measured from the corner of the eye when a person is looking straight ahead)? The monitor should be located so the user does not have to bend the neck back or forward to see clearly. <i>Action:</i> Elevate or lower monitor. If necessary, elevate chair and provide footrest.	Monitor risers / arm
	Are the monitor images clear and stable, free of dust or glare (reflections)? <i>Action:</i> Turn off overhead lights, reposition blinds, or shield monitor to the side / top to assess glare. Rearrange workstation so that monitor is perpendicular to light source. Change lighting / blinds during the day to reduce glare.	Add task lighting, reduce overhead lighting (removing bulbs), glare screen
Accessories		
	Is the employee comfortable while receiving phone calls during the day, which require him/her to type or write while speaking?	Telephone headset
	Does the employee type in a neutral posture without using the wrist rest? A wrist rest should be used for resting; the arms should float above the keyboard in a neutral posture (straight wrists) when typing. The keyboard should be flattened or at a negative tilt as close to the user as possible.	
	If the worker references documents while typing, are they located in a holder next to, in front of, or at an equal distance to the monitor and not resting flat on the desk? Document position depends on eyesight, document and screen font, and task parameters.	Rearrange workstation Document holder
	Is the worker able to get up from the computer on a regular basis (typing for less than 6 hours a day)?	Sit/stand workstation
	Is the input device (mouse) appropriate for the task and is the user operating it with minimal force? Thumb operated trackballs are typically not recommended for extended daily use.	Alternative input device Input device sized to the user

Workstation Sketch, Notes, Follow-up, Comments: