

EHS Ergonomics Learning Tool

Things to look for:	Possible solutions, depending on further analysis:	
Prolonged hunched or elevated shoulder while holding the phone	Telephone headset	Speakerphone
Elbows splayed out (shoulder abduction)	Lower work surface Lower chair armrests	Bring chair armrests in closer Awareness and habit training
Raised or tensed shoulders	Habit or tension training Lower work surface or keyboard Lower chair armrests	Raise chair, if foot contact with the floor can be maintained
Twisting the head to the side	Bring viewed item closer to	centerline of view
Elbow flexed for long periods using the telephone	Telephone headset	Speakerphone
Elbow or forearm resting for long periods on hard or sharp work surface, chair armrests	Pad or round surfaces, corners, and armrests Replace armrests	Telephone headset Habit training
Wrists bent to the sides when using side keys	Habit training Keyboard with more accessible	keys or split keyboard design
Wrists bent back (extended) or forward (flexed) for prolonged periods	Habit training Wrist rest	Lower, raise, or change slope of the keyboard
Wrists or palms resting for long periods on hard or sharp keyboard or work surfaces	Habit training Wrist rest	Padded or rounded surfaces, corners
Hands held actively over the keyboard during keying pauses	Habit training	Wrist or forearm rest
Rapid, sustained, or prolonged keying	Greater work variety Aggressive break schedule	Reduce overtime
Forceful keying, key pounding	Habit training	Light-touch keyboard
Significant amounts of hand stapling, punching, lifting, opening mail, or other forceful exertions, especially combined with awkward postures	Mechanical aids, such as electric stapler or punch Reduce size of lifted loads Bring heavy loads close to the body, at a medium height	Substitute sliding (work surface) or wheeling (floor) Sharpen letter openers
Prolonged mouse use	Greater work variety Aggressive break schedule Alternate hands Alternative pointer devices	Arm support, including small table Mouse close to body (extended keyboard tray) Learn keystroke substitutes for menus

Things to Look for:	Possible solutions, depending on further analysis:	
Feet dangling, not well supported, or a posture which seems to put pressure on the backs of the thighs	Lower chair Lower work surface	Habit training Foot rest (last resort)
Chair backrest not used for long periods	Check chair fit depth and height Check leg room	Check monitor distance Habit training
Twisted torso	Rearrange work Provide more knee space	U-shaped work surface layout Swivel chair
Frequent or prolonged leaning or reaching	Rearrange work Mouse pad wrist or forearm rest	Bring mouse and keyboard closer to body
Working with one or both arms "reaching" toward a mouse or keyboard	Bring keyboard closer to body Mouse pad wrist or forearm rest	Bring mouse closer to keyboard
Light sources that can be seen by the worker	Cover or shield light sources Rearrange work arena	Lower other viewed objects to lower field of view
Reflected glare on the screen	Shield light sources Shade screen Glare screen	Move monitor so light enter from side angles Lower light levels Move light sources
Too much contrast between screen and surroundings or document; worker feels relief when bright areas are shielded	Lower ambient light levels Turn off or dim task lights	Change screen polarity to black on white
Very bright ambient lighting (above 500 lux or 50 fc) or shadowed areas caused by over-illumination	Lower ambient light levels to 200-500 lux (20-50 fc)	
Monitor closer than approximately 40 cm (16")	Push monitor back Habit training for reclining Computer glasses	Bring keyboard forward, possibly with a keyboard tray
Different viewed objects (screen, documents) at different distances from the eyes	Use document stand or otherwise equalize distances to within about 10 cm (4")	
Screen or documents not oriented perpendicular to the line of sight	Change monitor, document stand angle	
Prolonged near focusing throughout the day with few far-focusing opportunities	Habit training Rearrange space to provide view	Introduce glazing
Monitor image dim, fuzzy, flickery, small, or otherwise difficult to read	Upgrade monitor	Use software to enlarge image
Shiny, low-contrast, or small-print documents	Improve lighting on documents if documents cannot be changed	
Forward position of the head (peering) or squinting	Check for monitor image quality problems or monitor distance	Suggest consultation with vision specialist

Things to Look for:	Possible solutions, depending on further analysis:	
Eyestrain complaints	Check all aspects of visual environment	Suggest consultation with vision specialist
Neck extended backwards, head tilted back, even slightly	Remove CPU from under monitor Remove tilt-swivel base from monitor (leave ventilation space)	Check for bi-ocals and suggest full-frame "computer glasses" prescription
Neck flexed (downward)	Raise document or monitor to a comfortable height Adjust posture	Habit retraining Check glasses for inadequate prescription

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