

# ERGONOMIC ASSESSMENT AIDE

## CHAIR

- Is thigh level to the floor (knees and hips at same height)?
  - Solution: Raise or lower chair until knees and hips are level. *Can lower the risk of lumbar/knee/ankle pain*
- Does the seat pan cover the entire back of the thigh, allowing enough room for a fist to be inserted behind the knee and in front of the chair with no wiggle room?
  - Solution: Move seat pan forward or back OR swap with a smaller or larger chair. *Can lower the risk of a pinch point on the femoral arteries*
- Are ear, shoulder, elbow, and hip perpendicular or almost perpendicular to the floor (straight up and down)?
  - Solution: Adjust back angle until alignment is straight or slightly reclined. (90 to 110 degrees). *Can lower the risk of back/shoulder pain*
- Does the apex of the curve on the chair back "spoon" with the lumbar curve?
  - Solution: Adjust back up or down until spooning. *Can lower the risk of lower back pain*
- Do the chair arms support the forearms without elevating the shoulders?
  - Solution: Adjust arms up or down if shoulders are elevated or forearms are open toward end of range of motion. *Can lower the risk of mid back/shoulder pain*
- Do the chair arms support the forearms without extending elbows away from torso?
  - Solution: Adjust arms in toward or out from seat pan OR swivel arms accordingly. *Can lower the risk of shoulder pain*

## KEYBOARD TRAY

- Is the tray at a height that allows the forearm to be level with the floor (elbow bone, wrist bone, and pinky knuckle) and allow curved fingers to sit on the home row?
  - Solution for JB computer tables: Raise or lower table legs until forearms are straight.
  - Solution for articulating keyboard arms: Tilt the tray toward the table to break the height "lock" and raise or lower and return to "level" to lock, until forearms are straight.
  - Solution for "split" tops: Depress the lever attached to the underside of the tray and raise or lower until forearms are straight. *Can lower the risk of carpal tunnel syndrome and pain on top of forearms*
- Are the knuckles higher than the wrist?
  - Solution: Tilt the tray forward until the knuckles are level with the wrist. *Can lower the risk of pain in the belly of the forearm muscle and Carpal Tunnel Syndrome*

## KEYBOARD/MOUSE

- Are the elbows under the shoulders in a straight line, perpendicular to the floor?
  - Solution: Either move the chair closer to the tray, or move the keyboard closer to the user, until elbow is under shoulder. *Can lower the risk of pain between the shoulder blades*
- Are the wrists straight, without ulnar or radial deviation?
  - Solution: Replace straight keyboard with a "split" keyboard. *Can lower the risk of cubital tunnel syndrome or pain at the base of the thumb*
- Can the mouse be reached by pivoting the forearm at the elbow without extending the forearm to the end of its range?
  - Solution: Move the mouse as close to the number pad and as close to the edge of the tray as possible. Move the tray accordingly if necessary. *Can lower the risk of pain at the base of the neck/shoulder/elbow/wrist and tennis elbow*

- Can the mouse be moved with just the hand, or does it require using the entire arm?
  - Solution: Speed up the pointer movement OR replace marble mouse with an optical mouse. *Can lower the risk of pain in the shoulder*

## **MONITOR**

- Is the top of the screen level with the eyes for those not using eye glasses?
  - Solution: Raise the screen with a riser (never books or paper reams), or remove risers OR remove the base attached to the monitor. *Can lower the risk of pain at the base of neck and top of shoulders (Thoracic Outlet Syndrome)*
- Does the chin raise (elevate) when reading the screen, especially for those who wear eye glasses and read the screen through the bottom of the lens?
  - Solution: Remove risers OR remove the base attached to the monitor to lower the top of the screen LOWER than eye level. *Can lower the risk of pain at the base of neck and top of shoulders*
- Is the screen perpendicular to the work surface?
  - Solution: Tilt screen until it is at right angles to the work surface. *Can lower the risk of eye strain due to glare*
- Is the face one-third (1/3) of the maximum sight distance from the screen?
  - Solution: Wearing glasses if they are usually worn, have employee move away from the screen until the screen cannot be read. Measure that as maximum sight distance, then divide by three (3). Move monitor on surface until it is one-third (1/3) of the max. sight distance away from the face. *Can lower the risk of eye strain and lower the risk of back pain*
- Is there excessive light on/around the screen?
  - Solution: Place monitor at right angles to light source OR eliminate/lower light source. *Can lower the risk of eye strain*
- Is there light behind the screen?
  - Solution: Turn off the light source OR move monitor to right angles to the light source. *Can lower the risk of eye strain*

## **WORK PLACEMENT**

- Are printed/written materials read from the work surface before the monitor screen is read?
  - Solution: Place the materials on a document holder that is as high as the monitor and right next to it, OR place the materials on an in-line document holder that bridges the distance between the bottom of the screen and the top of the keyboard. *Can lower the risk of Thoracic Outlet Syndrome; neck/shoulder pain*
- Is the telephone used simultaneously with the keyboard, while looking at the monitor and pinning the phone between the jaw and shoulder?
  - Solution: For frequent calls, install a telephone headset. For regular or low phone use, educate in proper phone handset use. (Ask caller to hold while screens are accessed, then place handset on work surface, access screens, then pick handset back up and use keyboard with one hand while holding handset with other hand and letting elbow rest on work surface.) *Can reduce risk of pain in neck/shoulder/back*
- Does it require leaving "neutral" to reach for frequently used items?
  - Solution: Move frequently used items closer to be within reach without leaning forward or extending the arm to end of its range of motion. *Can reduce risk of pain in back and shoulders*