

Human Factors and Ergonomics Society

As so many of us shift from the office at work to the home office, we are faced with a work environment that is not set up for all-day work (e.g. more than a couple of hours). At work, we often have a desk made for computer work, flat screen monitors, and a decent chair. But as we have been thrust into our homes, we don't have a dedicated work desk or ergonomic chairs, and are now working on laptops. To help you optimize posture and comfort at home in the new "normal", we have developed a top ten list of human factors ergonomic concerns and related economical fixes.

- 1) Poor fit to chair including no lumbar support, non-adjustable, and no arm rests

 Fix: use a hard, small pillow between back and chair back, make sure you stand and/or walk around once every 30 minutes.
- 2) Hard edge of table or counter where keyboard sits
 Fix: use a soft fabric cloth or pipe insulation on edge, position chair close to table edge so
- that arms can rest flat on table surface.

 3) Non-adjustable or seated only workstation
 - **Fix:** use objects around house to create a standing workstation like ironing board, boxes or laundry basket on top of table/kitchen counter, make sure height of the top of the computer screen is slightly at or below eye level and between 20- 40 inches away from you (e.g. eyes to screen about an arm's length).



Fix: Position monitor away from window or at a right angle to window with sun glare to the back of the monitor, position monitor slightly behind the overhead light

- 5) Laptop on the lap results in head to be flexed forward
 - **Fix:** Place a pillow or lap desk/tray under the laptop, (use a sturdy hard surface between the pillow and laptop to prevent monitor heat buildup and be sure cooling vent is not blocked by your solution).
- 6) Long periods of inactivity, fixation and static postures causes discomfort and eye strain Fix: Move approximately every 30 minutes, varying seating posture, stand and walk—outside if available. Give eyes a break, focus on something 20 feet away for 20 sec.
- 7) Extended use of mouse will result in wrist and shoulder problems, especially if arm is extended away from body

Fix: Use mouse in a position where arm is supported and not extended, take routine breaks (every 30 min), if long durations of mouse activity is required, use other hand

- 8) Use of two monitors may result in twisted posture of neck and/or back

 Fix: Place monitor that is being used most directly in front of you with secondary monitor to the side (e.g. split between monitors not directly in front)
- 9) Small laptop keyboards and touch pads will result in poor wrist postures
 Fix: Purchase an ergonomic keyboard and mouse for the laptop and use the monitor on the laptop at a proper viewing height
- 10) Disruptions to managing a work/life balance

Fix: Create boundaries for work and personal time, maintain a routine of work and non-work related activities, develop a time management schedule and share

11) Loss of connection and social isolation

Fix: Create a sense of work and social community by connecting with co-workers for informal chats and sharing personal stories about working at home, connect daily with friends/family



Back pain due to no lumbar support and wrist pain due to hard sharp table corner



Neck pain due monitor too low



Back pain due to turned torso; arm pain due to hard edge and surface too high



Upper and lower back pain due to bad seat and leaning forward