Computer Workstation Setup

Introduction: The following is a brief summary of recommendations for creating an ergonomic workstation or arrangement. Improper arrangement can affect your health in a negative manner. If you are having trouble establishing an ergonomic setup, have questions, or concerns, then you should contact Risk Management & Safety Services Department for assistance.

Length of Time at the Workstation:

If the computer will only be used by one person, then the workstation can be optimized for that user's size and shape. If multiple users will be working at the station, then the station should be designed to be adjustable or fit all sizes of users (short and tall heights & small and large).

The length of time at the workstation will determine the concern of musculoskeletal injuries & an ergonomic setup. If personnel only use a computer a few minutes a day, they would not necessarily need an ergonomic setup. The majority of positions at HSU have more than 4 hours of computer use per day and should have an ergonomic setup or arrangement.

Types of Work & Tasks:

Determine the type of software and equipment, which will be used most often at the station. For word processing, the keyboard and mouse should be positioned in the center of the user for priority. For internet searching or graphic design, the mouse should be a priority in positioning. Other tasks as data entry or scanning, that specific equipment should be positioned very close to the user and at an appropriate height.

Laptop Computers:

are very popular and great for short periods of computer work. The laptop design is inherently poor for long-term use (i.e. when the monitor height is appropriate the keyboard height is not and vice versa). If using a laptop, consider having an external monitor, external keyboard and external mouse; or a docking station. Having the external items will allow us to get into proper postures for longer periods without pain.

Desks:

make sure that the monitor, computer system (desktop, laptop, docking system, etc.), keyboard, and mouse are placed on stable working surfaces. The surface should have ample space for the setup and arrangement.

Consider attaching a keyboard tray system to the work surface. The keyboard tray allows adjustable heights and positioning to position the hands in a negative tilt when keying. Negative tilt is when the keyboard is positioned down and away from your body. This allows your upper arms to relax by your sides and puts the wrists in a comfortable neutral posture.

WHERE THE HEAD GOES, THE BODY FOLLOWS

Chairs: If only one person is using the chair, it can be at a fixed height, as long as it has a supporting backrest and lumbar support. For multiple users at the station, consider an ergonomic chair with adjustable features.

- Feet should be supported firmly on the floor or by a footrest.
- Sit with your back against the backrest and slightly reclined (90-110 degrees). The recline should not "rock" back and forth like a rocking chair. Most chairs have a latch or tension knob to stabilize the backrest.
- Thighs should be parallel to the floor.
- There should be a gap between the back of your calves and the front of the seat cushion.
- Forearms should be parallel to the floor as well.
- If you have arms for your chair, they should be used to rest only the arms. Do not lean on the arms, this will misalign your posture. The arms should not be in a position to raise your shoulders when sitting (do not shrug; your shoulders should be relaxed).
- Wrists should be flat and relaxed.
- Upper arms should be hanging at your sides. Avoid reaching forward or reaching outwards to use armrests.
- Your head should be upright and looking straight ahead.
- Comfort is a good item when selecting a chair as well!

Monitor Positioning:

- Centering the monitor towards the user is recommended. For users with two or more monitors, the primary monitor(s) should be centered to the user.
- Height should be slightly below eye level resting downwards.
- A general guideline is having your eye level at the top ¼ of the computer screen. Do not crouch your posture to achieve this, your head should be upright.
- Viewing distance from your monitors should be about arm length away without making head movements and your back against the backrest.
- If the font is too small after the adjustments have been made, you can increase the font size on your monitor through the software.
- Eye health: natural changes occur in vision for most people over the course of their life. It is recommended to have your vision checked annually by a qualified professional.
- Bifocals and progressive lens: improper head/monitor position can result in back pain or postural problems for bifocal users. If you sit back in a reclined position at 100-100 degrees and tilt your monitor back slightly to a comfortable position, this should alleviate the need to tilt your head back for push your neck forward.

Posture

- **Head** upright and over your shoulders.
- **Eyes** looking slightly downward without bending from the neck.
- **Shoulders** should be relaxed in line with the ears and hips.
- **Elbows** close to the body and at a 90 degree angle when typing.
- **Wrists** should be straight and as flat as possible, not bent up or down.
- When **seated**, thighs should be parallel to the ground.
- **Standing**, the knees should have a slight bend and you should not be on your heels.
- **Feet** should be placed flat on the floor or a foot rest.
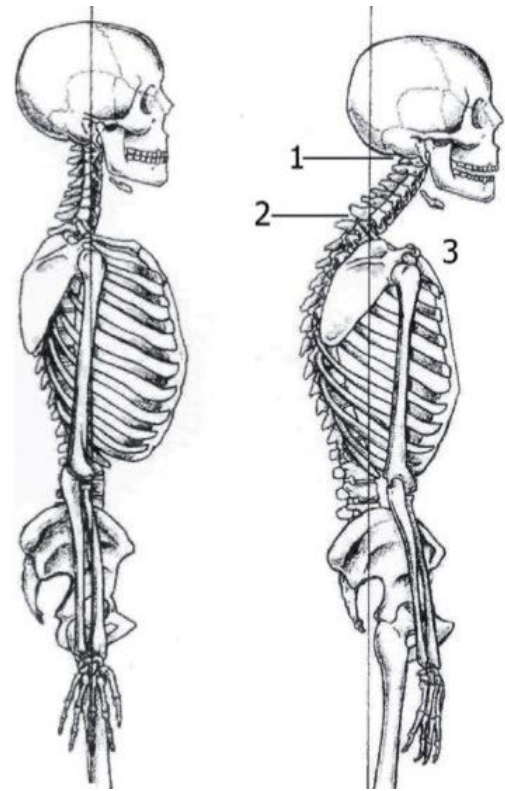
Mouse and Keyboard Positioning

- Keyboard and mouse should be centered to the user and close to the body to avoid reaching.
- Upper arms are relaxed and down to the sides.
- Keyboard tilt should be flat or negative. Do not "prop up" the clips on back of the keyboard.
- Follow postural tips and reference the Postural Guideline Image on the EH&S website.

Computer Location & Lighting

Ensure that the lighting is not too bright or there is a glare on the monitors. Moving the screen, lowering the light level, and/or use of a good anti-glare screen, are options to reduce glare.

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Breaks

- Eye breaks: Giving our eyes a break is important when looking at the screen for hours. The 20-20-20 Rule is a good tip to follow. Every 20 minutes, take 20 seconds to focus on a object at least 20 feet away.
- Rest breaks: Every 30 to 60 minutes take brief rest break. Stand up, move around and do something else. Walk to get some water or get some fresh air.
- Micro-breaks: Stopping to give your fingers and hands a gentle massage throughout the day. This is not necessarily a break from work, just a break from using a particular set of muscles.