



Office Ergonomics

Ergonomic Setup Tips

Setting up your workstation properly may be the single easiest way to prevent injuries. Follow our easy tips & suggestions to set up and use your:



Keyboard



Documents



Monitor



Lighting



Mouse



Phone



Chair



Desk

Tips for Healthy Keyboard Usage

1. Use a light touch when typing (don't bang on the keyboard).

Try to use the minimum amount of force necessary to depress the keys. The tendons from your fingers connect near your elbow, so striking the keys too hard can lead to problems you might not associate with your keyboard- for example, pain and inflammation in your elbows (Epicondylitis).

2. Keep your wrists in a neutral (straight) position – not bent up or down.

Repeatedly bending your wrists up and down (extension and flexion) compresses structures inside the carpal tunnel in the wrist. This can cause pain and lead to injuries like carpal tunnel syndrome. When you're typing, your forearms tend to sag as the arms tire, putting the wrists into even greater wrist extension-another good reason to take frequent stretch or rest breaks!

3. Keep sure your elbows at a slightly open angle- 90° or greater.

Keeping your elbows bent less than 90° can cause nerve compression, leading to sore wrists and arms. Adjust the height of your chair or your keyboard tray to achieve a comfortable position.

4. Keep your shoulders relaxed, and your elbows at your side.



You shouldn't have to raise your shoulders to get your hands to reach the keyboard-try raising your chair instead. Your forearms should be roughly parallel to the floor. If your chair has armrests, the armrests should comfortably support your elbows during rest breaks.

5. Don't use wrist rests or armrests while typing-only while resting.

If your workstation has wrist rests or armrests, be sure to use them only while taking breaks. Never use wrist rests or armrests while typing. A wrist rest should be used to rest the heel of your palm, not your wrist itself.

Tips for Healthy Monitor Usage

1. Follow the 20/20/20 Rule

If you tend to work on your computer for prolonged periods of times, be sure to take a 20 second break every 20 minutes and look at least 20 feet away. This gives your eyes a break and chance to adjust focus a great way to avoid visual fatigue.

2. Keep a clean screen

Dust gathers easily on monitor screens. Be sure to periodically use a recommended solvent to remove any accumulated dust or fingerprints, ensuring a clean and visually consistent display.

3. Position the top of your screen level with your eyes.

The ideal viewing height is to have your eyes levels with an imaginary line across the screen, about 2"-3" below the top of the monitor. This can be accomplished in one of two ways – either by either lowering your monitor or raising your chair. If your screen is too low, you'll find yourself tilting your forward to view the monitor (a common cause of neck pain). If it's too high, you may have to tilt your head back, leading to neck and shoulder pain – and increasing the likelihood of glare from overhead lights (a common cause of headaches.)

- **Exception:** If you wear bifocals while using your computer, it may be appropriate to position your monitor a few inches lower than otherwise recommended to accommodate comfortable viewing through your lower lenses.
- **Exception:** If you use a large monitor (20" or larger), position your monitor so that the top of the viewing area is about 3" above eye level.

4. Tilt your monitor slightly upward.



Tilt the screen so that the base is slightly closer to you than the top. This enables you to view the entire screen and the display more clearly. Tilting the monitor downward isn't recommended unless necessary to reduce the glare of overhead lights or if your monitor is too high and can't be adjusted.

- ❖ **Beware:** Tilting the screen too far back may cause reflected glare problems from overhead lighting.

Tips for Healthy Mouse Use

1. Use your elbow not your wrist to move the mouse

Keeping your forearms in one place and using your wrists to “flick” the mouse can increase intracarpal pressure leading to wrist and finger pain.

2. Limit the amount you use your tracking device

Take breaks every 15-20 minutes and change your position frequently.

3. Use keyboard shortcuts

Many of the commands available through menu choices can also be accomplished by using the keyboard. (For example, Ctrl-C can be used to copy text.) These shortcuts can significantly reduce the amount you need to move your mouse.

4. If you surf the web or edit long documents, consider a mouse with a scroll wheel

Scrolling with a wheel instead of the entire mouse helps reduce repetitive arm motions

5. Don't click too hard!

Just like typing on a keyboard, some people tend to use excessive force when clicking the mouse or trackball buttons. A light touch will do and it will help save your hands and wrists!

6. Make sure you're holding your mouse correctly

Believe it or not, there's a right and a wrong way to hold your mouse. Here are a few tips to help:

- **Avoid letting your fingers “hover” above the mouse or trackball buttons:** Some people are always “poised and ready” to click, holding their fingers over the button even when they're not using it. This causes unnecessary stress on your fingers. When you're not ready to click, you don't need your fingers raised, give them a rest by letting them relax or lay gently on the button,
- **Use a light Grip:** Just like typing too hard on a keyboard, holding your mouse too tightly can lead to pain. Don't choke your mouse, its already dead!



- **Don't hold the mouse when you're not using it:** Some people seen glued to their mouse. If there's a short period where you won't be using your mouse, you don't need to hold onto it.
- **Keep your wrists in a straight or "neutral" position:** Avoid tilting (up and down) or angling (side to side) your wrists.

7. Try using your other hand to operate the mouse

Switching hands, or "load sharing", limits the amount that each hand has to work. It may seem strange, but it takes most people just a few days to get used to the change.

8. If you use a trackball, consider placing padding or a rest under your elbow

This can help reduce the work your shoulder performs in keeping your arm raised. Make sure you use different fingers to operate the trackball using just your thumb can lead to discomfort!

Tips for Healthy Sitting Posture

Ergonomists generally agrees that there isn't a single, "static" seated posture that should be used all of time. It's a good idea to move around into different postures throughout the day to improve circulation and reduce muscle fatigue. However, if you have to sit for long periods, the following posture puts the least strain on your body.

General principles include:

- **Keep open angles:** Contrary to popular belief, good posture doesn't mean sitting flat and firm, with your hips, elbows and knees at 90 degrees angles. Your hips, elbows and knees should be at slightly open angles (greater than 90 degrees). Sitting erect or leaning forward increases the strain on the lower back. It's okay for short term use, but isn't recommended for prolonged periods of time.
- **Keep thighs parallel with the floor:** Your thighs should be roughly parallel with the floor.
- **Recline slightly:** Research has shown that reclining eases pressure off your lower back.
- **Avoid pressure points:** Uncomfortable pressure (e.g., on the back of your knees) can impede circulation. Be sure to make the proper adjustments to your chair to reduce such pressure.



- **Rest your feet flat on the floor:** Your feet should be flat on either the floor or a footrest.
- **Move around:** Making slight adjustments to your sitting posture throughout the day is healthy.

Troubleshooting your Workspace

Look for these common problems:

1. **Inadequate lighting levels:** The area where you work is too dim or too bright, or the lighting fluctuates during the day because of bright sunlight.
2. **Direct glare from light fixtures:** When you look at your computer screen, you can see bright objects reflected in the screen, such as lights, paper, or your clothes.
3. **Reflected glare on computer screens:** When you look at your computer screen, you can see bright reflected in the screen, such as lights, paper, or your clothes.
4. **Veiling glare:** When you look at your computer screen, it looks washed out because there is too much direct light falling onto the screen.
5. **Harsh lighting and shadows:** The lighting shines straight down from the fixtures, making the ceiling look dim and the office look gloomy. Another sign is when the lighting causes dark shadows on the faces of others in the room.

Tips for Healthy Phone Usage

1. **Use a phone with the right set of features:** If you frequently place calls, consider using a cordless phone or one with the number pad on the receiver rather than the base. This will help you avoid having to extend your reach to dial. However, if you often make calls to voice mail and other automated systems, using a phone with desktop numeric pad will be more convenient (since you'll need to listen and press keys simultaneously).
2. **Learn proper phone position:** Learn how to hold your phone in a proper position against your ear: heard straight and shoulders relaxes (not hunched). Your shoulder and head can be bent slightly to one side to cradle the phone, though preferably not for prolonged periods of time (as this can cause muscle aches in the upper back and neck). If you tend to use the



phone for long durations, consider alternating ears and supporting the hand on a regular basis. If your calls tend to be shorter, consider alternating ears and hands each every other call.

- 3. Consider using a headset:** This allows hands-free phone conversations and eliminates the risk of any discomfort or injury associated with improper phone use. It is superior to a

speakerphone because it will work well in a noisy environment or with confidential conversations. If you use the phone frequently all day long, a headset is your best option. Headsets can be purchased at most electronics or office supply stores for a price ranging from \$35-\$250, and then easily installed on any phones. If you do use a headset with a single earpiece, consider alternating ears to eliminate any discomfort that may be caused by continuous pressure on your ear.

- 4. Consider using a speakerphone:** This allows hands-free phone conversations, eliminating the risk of any discomfort or injury associated with improper phone use. Speak phones do have practical limitations: they generally won't work well in a noisy environment or for confidential conversations, and can sometimes reduce the sound quality of the conversation.

Tips for Healthy Desk Usage

- 1. First,** when you are sitting comfortably, pull up to the edge of your work surface and look straight ahead. What you see is your optimal viewing zone, and things that you look at during (computer screen, documents etc.) should be in or close to this zone.
- 2. Next,** reach each arm out to the side of your body and move them from this position until the hands meet at the center of your body in front of you. The semi-circular area covered by the sweep of your arms is called your normal reach zone, and everything that you frequently use should be placed inside of or close to this area. You should not have to bend or stretch to reach things that you frequently use.
- 3. Then,** relax your upper arms down to the side of your body. Using your elbows as pivot points, swing your forearms out to each side and then move them together until your hands touch in the center of your body in front of you. The area covered by the sweep of your forearms looks like that area covered by your windshield wipers, and it is called your normal working area. Things that you operate with your hands, such as your keyboard and mouse, should be placed in this area and positioned for optimum comfort.

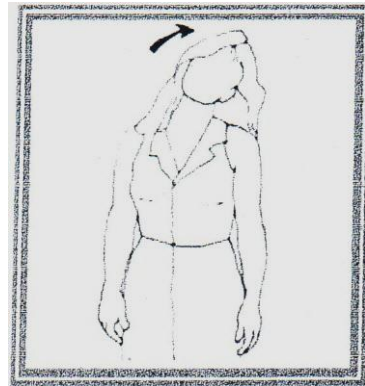


Healthy Computing *Stretches & Exercises*



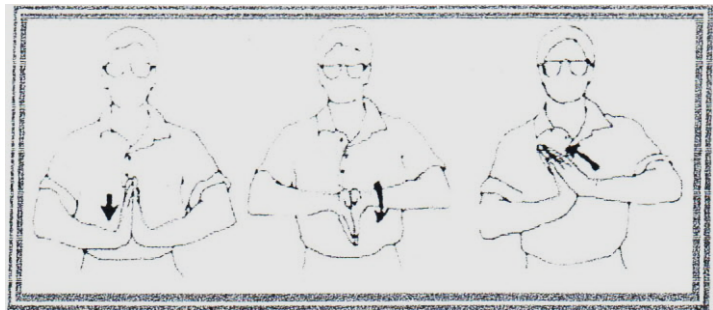
Shoulders and Arms (1)

- Interlace your fingers behind your back, palms facing your back
- Slowly turn your elbows inward while straightening your arms until a stretch is felt
- Lift your breast bone slightly upward as you stretch
- Hold 10 seconds



Shoulders and Arms (2)

- Hold your left arm just above your elbow with your right hand
- As you look over your left shoulder, gently pull your elbow toward the opposite shoulder until a stretch is felt
- Hold 10-15 seconds
- Do both side

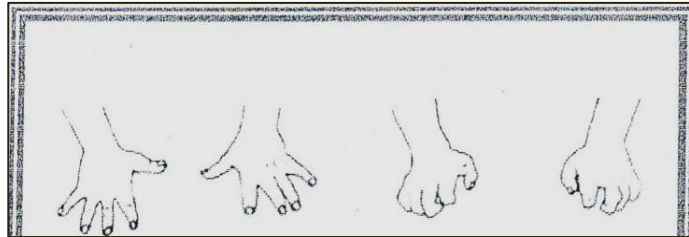


Hands and Wrists (1)

- Place your hands palm-to-palm in front of you
- Move hands downward, keeping your palms together, until you feel a mild stretch



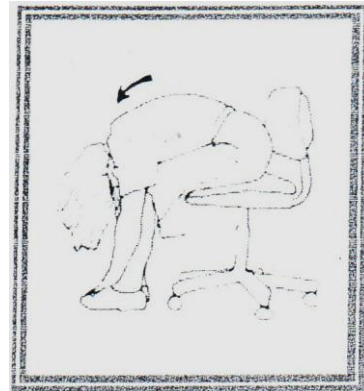
- Keep elbows up and even
- Hold 5-8 second



Healthy Computing *Stretches & Exercises*

Hands and Wrists (2)

- Separate and straighten your fingers until the a stretch is felt
- Hold 10 seconds
- Relax, then bend fingers at the knuckles and seconds

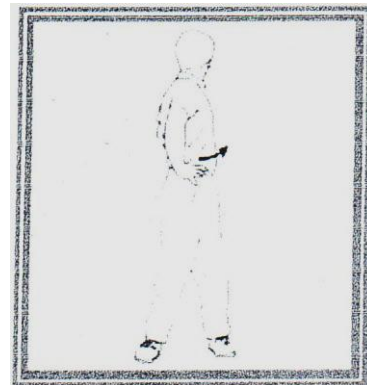


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hold 10

Back (1)

- Lean forward to stretch
- Keep your head down and your neck relaxed
- Hold 10-20 seconds
- Use your hands to push yourself upright

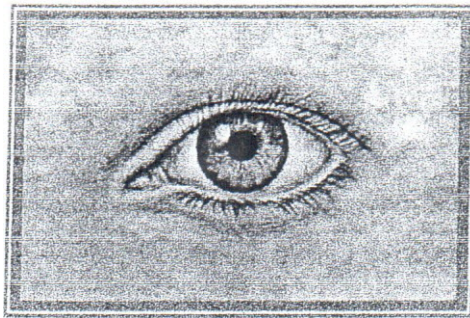


Back (2)

- Stand with hands on your hips
- Gently turn your torso at the waist and look over your shoulder until you feel the stretch



- Hold 8-10 seconds
- Repeat other side
- Keep your knees slightly flexed
- Do not hold your breath



Healthy Computing

Stretches & Exercises

Palming

Palming is an activity you can do to relax your eyes periodically throughout the day. Here's how it's done:

1. Cover your closed eyes with your hands, so that the palms are over (but not touching) your eyelids. Your fingers should overlap above your nose on your forehead.
2. Take several deep breathes and take in the complete darkness (or visualize a relaxing setting).
3. After 20 seconds or so, uncover your eyes and allow them to refocus. You're ready to continue your day.

Refocus Routine

If you regularly work with your computer, you should periodically look away to allow your eyes to change focus. This exercise should be repeated regularly throughout the day. Here's how to do it:

1. Identify 2 objects that are roughly 20 feet away and relax.
2. Comfortably focus on one object for approximately 10-15 seconds, then focus on the other object for 10-15 seconds.
3. Return your focus to your monitor and continue working.