



Ergonomics and Mobile Devices



Monterey County
Ergonomics Program

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Ergonomics and Your Laptop



The problem:

- Laptop computers are ergonomically incorrect. Unfortunately, the laptop's compact design, with attached screen and keyboard, forces laptop users into awkward postures. When the screen is at the right height, the keyboard position is too high; and when the keyboard is at the right height, the screen is too low. Laptops pose less risk when used for short periods of time.



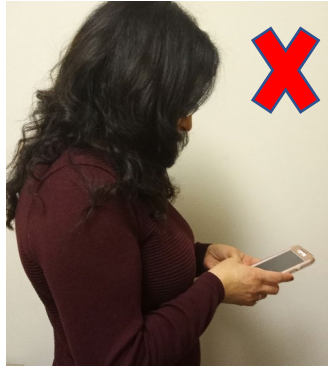
Advice:

- When you can, use an external keyboard and mouse with your laptop. When this isn't feasible, make a few simple adjustments to your work setup to achieve better posture.
- Use a docking station whenever possible to more closely resemble a standard desktop workstation where input devices can be attached. Use a laptop stand or place your laptop on a stable support surface, such as monitor risers, reams of paper, or phone books so that the screen height can be adjusted.
- Don't place your laptop on top of a pillow or other soft material. The lack of circulation could shut down the fan, which can overheat the computer.
- Maintain a neutral neck posture by placing the top of the screen at about eye level or slightly lower if using bifocal glasses.
- Clean your screen often as dust can make it difficult to read and may increase eyestrain.

Ergonomics and Your Smartphone

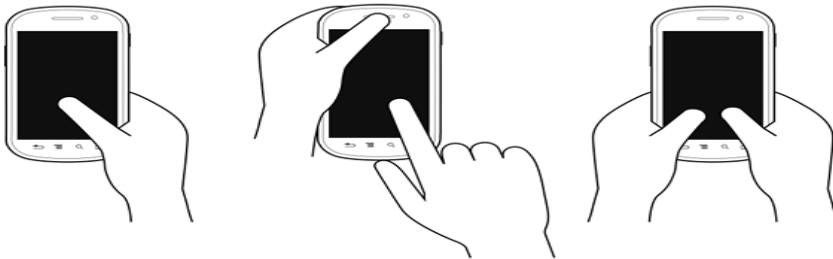
The problem:

- Holding your phone up to your ear for long periods of time can cause problems with your elbows, neck and shoulders. Also, texting or using your smartphone to create text-dense emails and documents can put excessive stress on your fingers/thumbs, shoulders and neck.

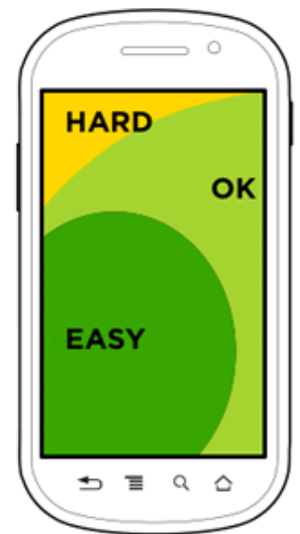


Advice:

- When possible, use a Bluetooth headset or other device that doesn't require you to hold you phone up to your ear for long periods of time.
- Keep your head up in a neutral position as often as possible, with shoulders and elbows relaxed.
- Avoid using your phone for manually typing long blocks of text – instead, using your laptop or desktop is much more efficient and puts less stress on your body, assuming your workstation is properly set up.
- Consider voice recognition software.
- Like with sitting, the best ergonomic posture for smart phones is to change your grip posture to ensure load rotation.



- Be aware of different areas of the phone and try to stay within the easy range during heavy phone use.



Ergonomics and Your Tablet

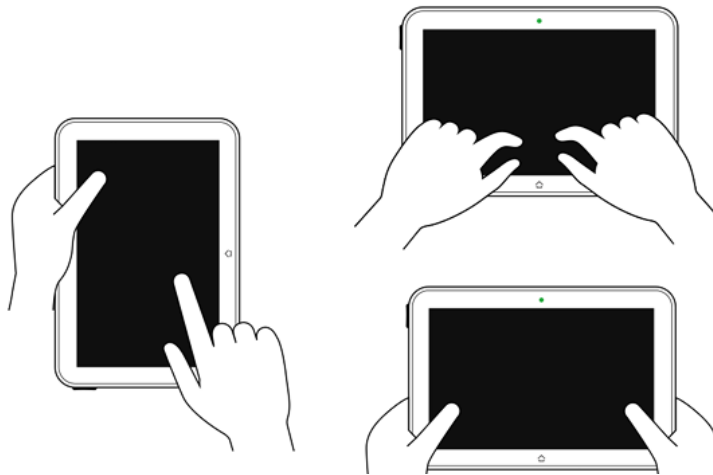


The problem:

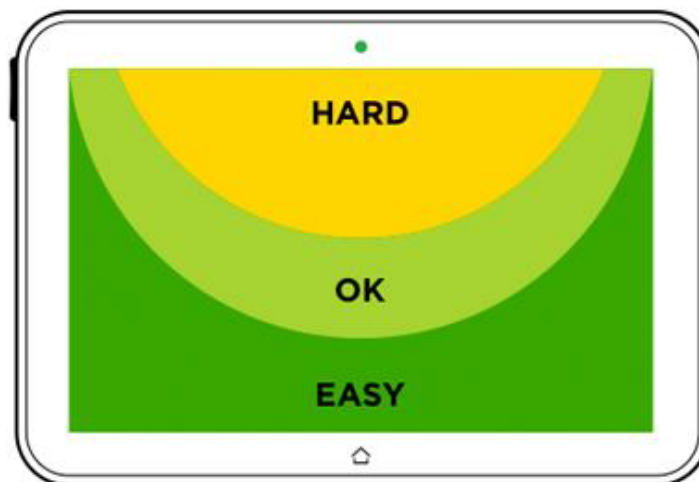
- Tablets such as the iPad are a great multi-purpose tool for getting work done. Improperly used, however, they can cause problems in your neck, shoulders and wrists.

Advice:

- One simple fix for the iPad is to purchase an inexpensive cover that doubles as a stand that allows you to adjust the iPad to a 45 degree angle and so you don't have to hold the iPad up manually with your hands.
- The best ergonomic posture for Tablets is to change your grip posture to ensure load rotation.



- Be aware of different areas of the tablet and try to stay within the easy range during heavy tablet use.



Ergonomics and the Car



The problem:

- For people who work on the move, a car may become common work environment. It's an environment that encourages many awkward postures leading to discomfort.



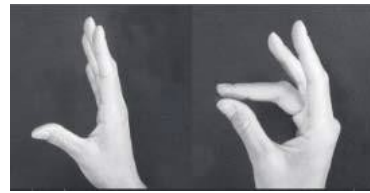
Advice:

- Avoid using your car as an office.
- Adjust to your body for comfort and safety.
- Avoid slouching or leaning forward. Maintain good posture and change posture regularly.
- If you are reviewing documents, it is recommended to hold them up higher towards or against the steering wheel. Avoid reading documents that are sitting on your lap to prevent neck, shoulder and back discomfort.
- Use a docking station if you often find yourself using a laptop in the car. Temporary docking stations should be used for short periods of time only (30-45 minutes) to avoid discomfort, strain and/or injury.

Hand Exercises



1. Tap each finger with the thumb of the same hand. Repeat 5 times.



2. Alternately tap the palm of your hand and the back of your hand against your thigh as quickly as you can. Repeat 20 times.



3. Open your hands and spread your fingers as far apart as possible. Hold for 10 seconds and repeat 8 times.



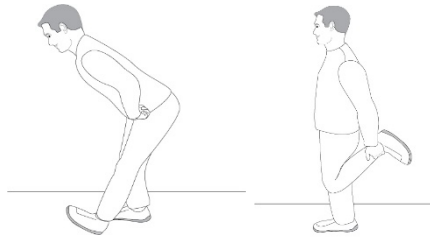
4. Fold your hands together; turn your palms away from your body as you extend your arms forward. You should only feel a gentle stretch. Hold for 10 seconds and repeat 8 times.



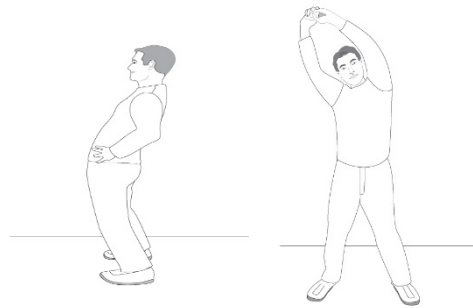
5. Fold your hands together; turn your palms away from your body as you extend your arms overhead. You should feel a stretch in your upper torso and shoulders to hand. Hold for 10 seconds and repeat 8.

Basic Body Stretches

Do each stretch 3 times, hold for 20 seconds.



Hamstring stretch Quadriceps stretch



Back extension Side stretch



Rotation stretches