



Repetitive Strain Injury Prevention Tips

The American Society of Hand Therapists (ASHT) offers the following tips to prevent hand injuries while using portable electronics and video games.

1. **Use a neutral grip when holding the controller** – A neutral grip is when the wrist is straight, not bent in either direction (not strong or weak). It will allow for wrist motion in a plane where more motion is available in the wrist.
2. **Take a break every hour or switch to another activity** – Overuse of repetitive motions, such as pressing buttons, can cause tendonitis of the elbow or lead to Carpal Tunnel Syndrome.
3. **Don't sit back on your knees** – Bending the knees this far is not only a hard position for the knee joint, but it requires you to push most of your weight up with the hands and wrists, placing increased pressure on these joints as well.
4. **Make sure the monitor is at the correct height** – While looking at the horizon, your eyes should be looking at the top of the monitor. (This may vary if wearing glasses)
5. If you are typing, the keyboard should be at a height so that the wrist/hands are straight and forearms are parallel to the keyboard surface.
6. **When using a hand-held device, put pillows in your laps and rest arms on pillows** – This will allow you to keep your head in a more upright position and therefore decrease neck strain. The pillows will help support the arms so they do not have to be held up in the air.
7. **Your should be sitting in an appropriate chair** – This would be a chair that allows you to comfortably put your feet on the floor and also provides good back support.
8. When using a single control device (like a mouse), **switch hands frequently** – This will allow the one hand to rest and reduce fatigue.
9. **Frequently focus on a distant object** (away from the monitor) to help reduce eye fatigue.

ASHT recommends performing the following hand and wrist exercises to reduce the risk of injuries when using handheld electronics. *(Note: These exercises should never be painful when completing them. You should only feel a gentle stretch. Should you experience pain, please consult a hand therapist or physician.)*

- Fold your hands together and turn your palms away from your body as you extend your arms forward. You should feel a stretch all the way from your shoulders to your fingers. Hold for 10 seconds and repeat eight times.
- Fold your hands together and turn your palms away from your body, but this time extend your arms overhead. You should feel the stretch in your upper torso and shoulders to hand. Hold for 10 seconds and repeat eight times.

- Place your hand just above the back of the elbow and gently push your elbow across your chest toward the opposite shoulder. This is a stretch for the upper back and shoulder. Stretch both the right and left arms. Hold for 10 seconds and repeat eight times.
- Raise one arm overhead. Bend the elbow. Place the opposite hand on the bent elbow and gently push the elbow back further. This is a stretch for the triceps (muscle on the back of the upper arm). Stretch both the right and left arms. Hold for 10 seconds and repeat eight times.
- Extend an arm in front of you, making sure the elbow is completely straight. With your palm down, take the opposite hand and bend the hand down toward the floor. Then turn the palm up, and stretch the hand back toward the floor. This stretches the forearm and wrist muscles. Hold for 10 seconds and repeat eight times.
- Open up hands and spread the fingers as far as possible. Hold for 10 seconds and repeat eight times.
- Note: These exercises should never be painful when completing them. You should only feel a gentle stretch. Should you experience pain, please consult a hand therapist or physician.

ASHT stresses the importance of developing good habits early on in children to prevent hand and wrist injuries in adulthood. Healthy techniques learned at a young age can carry over into other aspects of life where there is a similar injury risk such as sitting in front of a computer or playing musical instruments.