



Ergonomic Risks Associated with Tablet Use

Ergonomic Tips — How to Reduce Risks

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The use of tablets is increasing, and is steadily replacing laptops. Tablets are lightweight and portable providing users with the flexibility to use them everywhere. This means we now have the bulk of tablet users (including school-aged children) using them in bed, sitting in a chair, in front of the television, and in the car. This has led to an increase in the number of users reporting neck and upper back pain associated with tablet use.

Every piece of electronic equipment we use, and every posture we assume, has varying impacts on the body. A recent Harvard study: *“Reducing risk of head and neck pain from tablet computer use”* studied fifteen tablet users utilizing four different postures. The study found that a participant’s neck in all four positions was more flexed (head tilted in a downward angle) while using the tablet compared to those using a desktop or laptop computer.

The ideal tablet position was found to be the *table-movie* position, where the tablet is placed on a table in its case at its highest angle setting --73 degrees for iPad and 63 degrees for the Xoom. Although this position is ideal for watching a movie, it isn’t practical for interactive work such as school work, reading/responding to emails, or other administrative work.

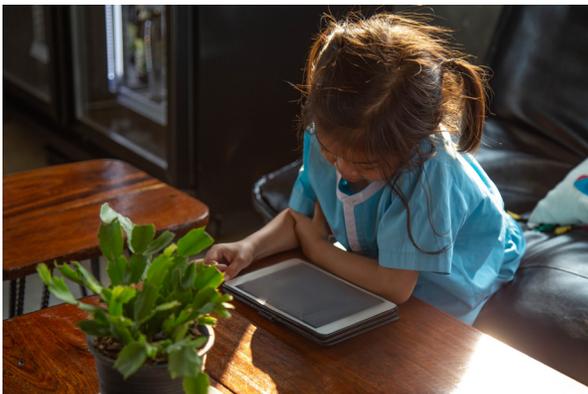
Prolonged periods of time with one's head flexed forward – a diminishing of ideal *neutral-working* posture – will increase the risk of musculoskeletal disorders over time. Unfortunately, this is becoming the 'norm' for school-aged children, due to remote learning and the use of tablets as the primary educational tool.

What can we do?

With changes in technology come new kinds of health risks. Incorporating ergonomic modifications dramatically reduces the user's risks for musculoskeletal disorders associated with awkward posture and tablet use (*such as sitting crossed legged or slouching in a chair with your head drawn forward*) and loss of neutral working posture (*tablet not positioned properly on the desk or table*).

Here are some guidelines to help support success for both children and adults alike.

1. Focus on posture to avoid poor posture, for example 'the vulture'. Teach children to draw their chin in and gaze down with their eyes to avoid poor posture. The neck should be straight, shoulders relaxed and the arm position should be near the torso.
2. Tablets should have a case that allows the user to prop it up at various angles.
3. If possible, when typing for long periods use a separate keyboard.
4. Be aware of glare; position the screen at a right angle to the windows and away from overhead lighting. Incorporate the 20-20-20 rule: look away from the screen every 20 min, look 20 feet away for 20 seconds.
5. Alternate fingers/hands when using buttons/touchscreen.
6. Maintain neutral wrist posture (no bend in the wrist) and alternate hands when holding the device
7. Vary your posture every 15-30 minutes, and incorporate the *neutral-working* posture principles into the different positions. This will help reduce pain and stiffness.
8. Incorporate mini breaks into your day to shift your posture and stretch out.



Let's help our kids avoid poor tablet posture, as illustrated in this photo, to reduce the risk of head and neck pain.