

Computer games - health issues

Computer and video games are popular pastimes for many Australian children, but very little research has been done on how these games affect children's health. It may be appropriate to look at research studies into the health effects of watching television because computer or video games, like television, involve no physical activity.

Researchers believe that electronic games are associated with an increased risk of childhood obesity and can cause overuse injuries of the hand. The sedentary nature of playing electronic games could also increase the risk of developing muscle and joint problems such as back and neck pain and headaches. While computer or video games are fun and offer benefits such as improved spatial awareness, parents should keep in mind that moderation is the key to minimising any health risks.

Health risks

The range of health risks include:

- Overuse injuries of the hand
- Obesity
- Muscle and joint problems
- Eyestrain
- Photosensitive epileptic seizures (rarely).

Overuse injuries

Overuse injuries to the hand can be caused by repeatedly pressing buttons on a computer or video game controller. The type of injury depends on the kind of button-play performed; for example, a game that requires the player to press a button with their thumb risks injury to the thumb's extensor tendon. Suggestions to reduce the risk of overuse injuries include:

- Set sensible time limits on game playing.
- If available, choose the child-sized version of game controls.
- Using unnecessary force increases the risk of overuse, so remind your child to push the buttons and other controls as gently as they can.
- Remind them to take frequent breaks to shake, flex and relax their hands.
- Different games often require different controls (for example keyboard, mouse, joystick, steering wheel), so encourage your child to mix up their game play.

Obesity

There is a link between television watching and obesity in children. Generally, the more hours spent in front of the television, the greater the risk of obesity. Since electronic game playing is sedentary too, researchers believe that the health effects are similar. Suggestions to reduce the risk of obesity include:

- Set sensible time limits on game playing.
- Offer healthy snacks and drinks while your child is playing.
- Encourage your child to pursue other hobbies and interests, particularly sports and other physical activities.
- Incorporate physical activities into family outings.
- Be a good role model by participating in regular exercise and limiting your own electronic game playing.

Muscle and joint problems

Research shows that adults who work at computers for long periods of time are prone to a range of muscle and joint problems that can cause back pain, neck pain and headache.

Few studies have been done on the muscle and joint problems children may experience from game playing, but researchers believe that the impact on a child's posture and spine may be similar. You can help to reduce the risk of your child developing problems if you:

- Set sensible time limits on game playing.
- Encourage your child to take regular breaks during the game, to walk around and stretch.
- Rearrange the furniture to suit your child's height: for example, adjust the chair so that their feet rest flat on the floor.
- Provide an ergonomic chair if possible, to encourage correct posture.
- Ensure your child has enough time each day for physical activities.

Eyestrain

Eyes that are focused at the same distance point for lengthy periods of time become fatigued. Symptoms include blurry vision and headache. To reduce the risk of eyestrain:

- Make sure the screen is adjusted properly for contrast and brightness.
- Rearrange the furniture if possible so that any light source, such as a window, does not shine into your child's face or onto the monitor.
- Encourage your child to take frequent 'gaze' breaks, such as looking at distant objects to change the focal point.
- Consult with an optometrist if your child complains of blurred vision and headache, because they might have an underlying eye problem.

Photosensitive epileptic seizures

Photosensitive epilepsy is a relatively rare condition characterised by seizures in response to flickering light. A very small percentage of electronic game players may be sensitive to some games that feature rapidly flashing graphics. While the risk is extremely small, you can reduce the potential risk if you:

- Make sure your child sits at least one metre back from the screen. Two metres away is even better.
- Have a high resolution screen if possible as they are less likely to induce seizures in sensitive individuals than low resolution screens.

Benefits of computer and video games

Game playing is a lot of fun, and computer and video games offer other important benefits too. Depending on the game, research shows that playing can improve:

- Spatial awareness
- Iconic skills (reading images or diagrams)
- Visual attention skills (such as keeping track of various objects at the same time)
- Attention span in children with attention problems.

Where to get help

- Your doctor
- Physiotherapist
- Australian Physiotherapy Association Tel. (03) 9534 9400

Things to remember

- Set sensible time limits on computer and video game playing.
- Your child should take regular breaks during the game.
- Ensure your child has enough time each day for physical activities.

Want to know more?

For references, related links and support group information, go to [More information](#).

This page has been produced in consultation with, and approved by:

La Trobe University - Health Science, School of Physiotherapy

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