

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

Preventing “Wii-itis”

Most people are familiar with the Nintendo Wii. This hugely popular video game console uses wand-like controllers to translate motions of the hand and arm into actions by characters on the screen. The active gameplay makes the Wii popular with parents concerned about their children sitting for hours playing traditional sedentary video games.

Dr. Terai understands the appeal of the Wii in this age of burgeoning childhood obesity rates. But playing Wii is not only inferior to good old-fashioned sports and active play — it can cause overuse injuries when played in excess. Dr. Terai explores the newest maladies caused by technology, and research showing that chiropractic can help.



What Is Wii-itis?

The Wii hit the stores in 2007, and reports of Wii-related injuries started emerging the same year. The mean age of those hurt playing with a Wii that year was 16 years old. Studies published since then describe patients as young as 3 years old.

Chiropractors, like Dr. Terai, are seeing a growing number of patients of all ages with a variety of Wii-related injuries. Causes range from cuts from windows broken by wayward controllers to vertebrae (spinal bone) fracture brought on by vigorous swinging motions.

The authors of one study write: “Children in the new era of portable electronic devices are presenting to chiropractic offices with a set of symptoms directly related to overuse or repetitive strain from prolonged play on these systems.” (*J Chiropr Med* 2010;9:84-9.)

A repetitive motion injury coined “Wii-itis” is the most common Wii-related condition. Wii-itis typically includes spinal pain, spinal joint dysfunction and pain in the shoulder and/or arm.

Symptoms of Wii-itis result from accumulated microtraumas — tiny injuries to muscle fibers — that make the shoulder tense and less stable. Since motion of the arm includes motion of the shoulder and upper spine as well, all of these joints are affected, resulting in misaligned bones, which trigger additional symptoms.

What Triggers Wii-itis?

Although playing Wii is physically exerting, players often take no more precaution against injury than they would while playing a sedentary video game. Players move in ways their bodies aren’t accustomed to, and they don’t warm up first (*Injury Extra* 2008;3:86-7).

Playing Wii also carries particular risk of injury because it’s different from playing actual sports.

Swinging motions used to hit a virtual tennis ball or baseball don’t meet the resistance of hitting a real ball. Similarly, the motion of rolling a bowling ball is not limited by the weight of a real ball. This makes it easy for players to overextend their shoulders (*J Chiropr Med* 2010;9:84-9).

Also, because playing Wii is less tir-

ing than playing real sports, it’s easy to play for hours, upping the risk of repetitive motion injuries (*N Engl J Med* 2007;356:2431-2).

Preventing Wii-itis

The key to preventing Wii-itis is moderation, especially when first getting a Wii. The temptation to play for hours is strong, but long sessions of any unfamiliar movement is a sure path to injury — 80 percent of repetitive motion injuries in young athletes occur when they have just taken up a sport. Playing Wii can have similar effects (*J Chiropr Med* 2010;9:84-9).

Place limits on how long your child (and you) play. Insist on a pre-Wii stretch and warm-up, and encourage frequent breaks.

Chiropractic Care for Wii-itis

By performing gentle maneuvers called *chiropractic adjustments*, Dr. Terai corrects the dysfunctional areas in the spine, or *vertebral subluxations*, associated with Wii-itis.

Research shows that chiropractic adjustments can make a huge difference.

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For instance, an article published in the *Journal of Chiropractic Medicine* indicates that chiropractic care may be highly effective in caring for children with Wii-itis

The study, conducted at Life University in Marietta, Georgia, followed four children aged 3 to 9. The patients all had a triad of injuries commonly referred to as Wii-itis: 1) spinal pain, 2) spinal joint dysfunction, and 3) related extremity pain. They also reported prolonged playing of the Nintendo Wii.

All patients had their complaints resolve with their first chiropractic visit (*J Chiropr Med* 2010;9:84-9).

Copious research shows that chiropractic care's drug-free approach is extremely safe for children — no wonder it's the most common form of complementary and alternative medicine chosen by parents for their children.

Other Video Game Injuries

Wii-itis may be a new condition, but it's just the latest in the history of repetitive motion injuries related to video games. Coined in 1991, the term *Nintendinitis* referred to repetitive motion injuries from hours of use of the original Nintendo controllers (*J Hand Surg Am* 1991;16:181).

Medical literature has also described *Playstation thumb*, marked by blisters, numbness and tingling caused by that console's controller, as well as *knuckle pads*, painful fibrous growth in the knuckle joints that can be caused by excessive video gaming.

Just how prevalent are video game-induced injuries? A study of 171 children aged 7 to 12 was presented at the American College of Rheumatology Annual Scientific Meeting in Philadelphia. The survey revealed that almost half played video games for more than an hour each day. Of all children interviewed, 12 percent reported finger pain and 10 percent reported wrist pain severe enough to limit their play. Children who played Wii were more likely than others to report pain.

Handheld video game systems, another popular category of video game technology, have the potential to cause neck and back problems because of the forward head tilt usually adopted by players. Too much time in this position may cause the spine to develop an unnatural curve, and related vertebral subluxations, which up the risk of back pain, neck pain, headache and a myriad of other disorders. Chiropractic adjustments, along with ergonomic advice from the doctor, can prevent and correct this condition.



Pain from Computer Use

Video game systems are not the only technological source of musculoskeletal pain. Time sitting at a computer can also cause painful problems in the spine. A survey of nearly 6,000 15- and 16-year-old children revealed associations between time on the computer and mild to severe neck and shoulder pain (*Spine* 2007;32:1038-44).

In another study, researchers observed children working on computers in their classroom and noted that most sat with poor posture that only got worse the longer they worked. Many of the children with poor posture reported discomfort while at the computer (*Ergonomics* 2007;50:1582).

Poor spinal posture leads to vertebral subluxations and related conditions. That's why it is essential that anybody who spends a significant amount of time using a computer receive regular chiropractic care.

The doctor advises patients of all ages

about how to set up their computer workstations for minimal stress on the body. Regular breaks of rest and stretching are also important, just as they are for video game play.

Texting Injuries

Texting is yet another source of repetitive stress injuries because typing on the tiny keypads on cell phones requires moving the thumbs repetitively at awkward angles. "Texting tendonitis" is increasingly common in patients who send more than their share of the 6.1 billion texts sent annually.

A study of college students showed that hand and neck pain are both common while texting, and unconsciously holding breath and keeping arms rigid for stability while texting may increase discomfort.

On the other hand, a neutral head position with good back and forearm support makes texting more comfortable and less likely to lead to injury.

Of course, moderation is key in texting like any other activity — voice recognition and predictive typing technologies on many phones can help reduce repetitive motions.

Modern Technology = Modern Injuries

As new technology emerges, so do new injuries. This chiropractic office keeps up-to-date on health risks triggered by video games, computers, phones and other technology. We are committed to staying informed so that we may best care for our patients. If you are concerned that you or your children are at risk of developing Wii-itis, or another tech-related injury, please call our office today to schedule an evaluation.

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