

**TEXTING AND VIDEO GAME USE: - TENDINITIS TENOSYNOVITIS &
ARTHRITIS RISKS TO CHILDREN & TEENS**

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Mr. Leslie Roberts
Global National News

Dear Leslie,

As a doctor with 25 years in practice and over 10,000 patients, I am seeing significantly more RSI (repetitive stress injuries) from smart phones, texting, emailing and video gamers in the wrists, hands and thumbs. I am also seeing children and teens with many more postural problems affecting their necks, shoulders and backs than ever.

RSI means static loading: holding a muscle-tendon and joint complex in one place for too long, creating inflammation and pain and eventually arthritis. Out of frustration with this growing trend and the lack of effective solutions, I developed an all natural topical pain, inflammation and spasm reliever called Professional Therapy MuscleCare. This is a product that kids, teens and adults can use to relax and re-set the tissues and if used regularly and pro-actively, should assist in avoiding the long term hazards associated with repetitive strain.

As I see it, the solution to this trend is three-fold:

1. Manage the amount of time you spend texting and gaming. After an hour. take a break.
2. Stretch the hands, wrists, shoulders and neck
3. Use MuscleCare proactively and reactively to help reduce pain, inflammation and muscle spasm

MuscleCare is proven in an RCT published study to outperform leading national brands of topical pain relief (link to study:<http://chiromt.com/content/20/1/7>). Recently, Motherisk at the Hospital for Sick Children in Toronto finished a study, soon to be published, showing that MuscleCare is safe for use in pregnancy for mom and baby, hence safe for kids.

MuscleCare topicals are sold at Rexall Pharma Plus but our Gamer's MuscleCare pain relief is sold only at EB Games.

We have a social responsibility to our kids to act proactively!

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SUMMARY OF RESEARCH & DATA

1. Children's Computer/Electronic Game usage

A study done in 2003 of children's computer and electronic game usage involving 476 children from grade 1 through 8 concluded: Results clearly indicated that children are experiencing discomfort from the use of computers or electronic games. . .

Because the use of computers and electronic games occurs on a daily basis both at school and at home, many children are beginning to experience symptoms that may be related to their computer use (Cohen, 2000; <http://www.tifaq.org/kids/patents.html>). Swollen digits resulting from endless jamming at a button or control stick, carpal tunnel syndrome, and a combination of inflammation, achiness, soreness, weakness and tingling of the upper extremities as well as eyesight strain are common symptoms seen in children.

The majority of the participants reported discomfort in a combination of locations. The neck, back, fingers, and hand were identified as the most common locations of discomfort. It is noted that 58.2% of our participants reported physical discomfort related to the use of computers, computer games, and electronic games.

Further results show a relationship linking the older children who spend more time on the computer and electronic games are also experiencing more physical discomfort. (Ramos et al, 2003)

2. Repetitive Strain Injury

Repetitive Strain Injury (RSI) has been classified as a cumulative trauma disorder (CTD) resulting from prolonged repetitive, forceful or awkward movements. (Ramos et al, 2003)

Some doctors fear that prolonged computer use during childhood could mean a lifetime of adult pain, poor posture and RSI. Dr. Alan Hedge of Cornell University states that he sees in schools what he saw in offices twenty years ago, "by the time these kids enter the labor force, they may already have the problems we see in adult workers". (Ramos et al, 2003)

In a study of hand pain disorders, it was concluded that: The early identification of some hand pain disorders, such as VWF, is very relevant to prevent both progression of the disease and irreversible damage. (J-L Andreu et al, 2010)

Overuse disorders of tendons, or tendinopathies, present a challenge . . . Excessive or inappropriate loading of the musculotendinous unit is believed to be central to the disease process, although the exact mechanism by which this occurs remains uncertain. (Rees et al, 2009)

3. Overuse injuries related to video gaming and texting

Video-game related overuse syndrome was first reported by Brasington et al. [1] in 1990 and coined "nintendinitis." This, specifically, was due to overuse tendinitis of the extensor pollicis longus tendon and caused by the prolonged and repetitive thumb motion utilized while a Nintendo game is being played. More recently, Bonis [2] described an overuse injury in a

resident physician after the physician had been playing a video-game simulating tennis on the newer Nintendo entertainment system called “Wii.” (Nett et al 2007)

Overuse injury and tendinitis from the playing of videogames is a well-established diagnosis. However, virtual sport and physically interactive video-games represent a new era of recreational technology. These games are rapidly becoming more popular. The risk of acute sports-related injury with these games is currently unknown. We feel that the risk of injury, whether related to overuse, delayed-onset muscle soreness (DOMS), or acute injury, is likely much higher than previously reported in the literature, due to the physical nature of the newest entertainment systems. (Nett et al 2007)

The occurrence of “gaming” injuries has evolved since Brasington originally described Nintendinitis in 1990 as pain to the extensor tendon of the right first digit of a 35-year-old woman (1). In the past 17 years, the description of Nintendinitis has expanded to include the ulcerative variety and acute Wiiiitis of the right shoulder (2,3). “Texting” tendonitis and Playstation thumb are other increasingly common “gaming” injuries (4,5). (Boehm & Pugh, 2009)

Based on a Kaiser Family Foundation study, cell phone ownership is 85% among 15- to 18-year olds, 69% among 11- to 14-year olds, and 31% among 8- to 10-year olds.3 Th is study reports that 7th to 12th graders, on average, spend 1 hour and 35 minutes each day texting and send 118 messages. (Williams & Kennedy, 2011)

Yoong observed texting tenosynovitis among school children who were sending more than 100 text messages daily. (Williams & Kennedy, 2011)

The most common cause of de Quervain tenosynovitis is overuse of the thumb musculature. (Ashurst et al, 2010)

Based on our experience, we believe that it is important for physicians to remain alert to the potential association between text messaging and de Quervain tenosynovitis when treating patients with a history of wrist pain. (Ashurst et al, 2010)

4. Arthritis and Gaming

According to a Mayo Clinic article on thumb arthritis, thumb arthritis is the most common form of osteoarthritis affecting the hand. It can cause severe hand pain, swelling and decreased strength and range of motion, making it difficult to do some household tasks such as turning doorknobs or opening jars. Among the risk factors for thumb arthritis is “performing certain activities and jobs that put high stress on this joint.”

(<http://www.mayoclinic.com/health/thumb-arthritis>).

A 2009 study of 171 children (average age 9.3 years) by Yusuf Yazici, MD and reported at the 2009 annual meeting of the American College of Rheumatology determined that playing with a video game console is, in fact, associated with increased joint pain in young children. “In particular, 12 percent of children reported finger pain and nearly 10 percent reported wrist pain that limited the amount of time they were able to play video games.”

(<http://www.arthritistoday.org/news/video-games-pain-kids020-print.php>.)

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