

Forward Head Posture Caused by Texting

Tell Your Patients: Your Body Is Sending You a Message

The need for chiropractic care has significantly increased with advances in mobile technology, and the reality that the public at large is constantly "connected." About two years ago, I started to notice that more and more young people were coming to my office and presenting with similar complaints.

They all had neck pain, headaches, shoulder pain, or numbness and tingling into the upper extremity.

During a report of findings meeting with one of these young patients, her mother asked me, "Well, what does she have?" I looked over at the patient and noticed that she was buried in her cell phone with her head flexed forward - texting. With that, I replied, "It's simple. She has text neck." I pointed out to the patient's mother that at 16 years old, her daughter had a reversed cervical curve with mild degenerative changes, and that she was too young to be experiencing these bony changes. I then asked the patient how often or how much she texts. She replied that she texts all day long, and that it is her primary mode of communication.

These days, people are constantly "connected" to their hand-held devices, whether it is their cellular phones, portable video games like Nintendo DS, e-readers such as Amazon Kindle, or they are just using apps on an iPhone. A Kaiser Family Foundation survey found that young people 8-18 years old spend in excess of seven-and-a-half hours a day using some form of mobile media. As a result, this younger demographic will surely be presenting to our offices with more forward head posture (FHP).

Many, if not all chiropractors have at one time or another conducted a screening to educate the public on the importance of good posture and explained how poor posture negatively affects the body's ability to function. Fortunate chiropractors are able to book a future appointment on the spot. If they are really lucky, the potential patient actually showed up for their appointment. We then have the task of re-educating that patient on how the brain and the spine control function and how "posture equals function." This process of getting the patient to understand and see the real need for care is often long and tedious, and unfortunately not always effective.

This should *not* be the case when talking to patients about FHP. As technology advances in the market of hand-held mobile devices, we need to educate the public that where the head goes, the body will follow. If a patient has FHP, then they will have rolled shoulders. With rolled shoulders, a concave chest can follow, and often a pelvic tuck. It is pivotal that chiropractors concentrate on the condition of forward head posture related to the use of technology.

Text messaging was reported to have addictive tendencies in the Global Messaging Survey by Nokia in 2001, and was confirmed to be addictive in a study conducted at the Catholic University of Leuven in Belgium in 2004. Since then, a study at the University of Queensland in Australia has found that text messaging is the most addictive digital service. It has been compared to being as addictive as cigarette smoking. The text reception habit introduces a need to remain connected, called "reachability."¹

Because the demographic of people ages 13-27 is one of the largest groups of texters, we can expect to see a large increase of medical and chiropractic conditions within the next decade. The amount of time spent in a forward head tilt while texting or gaming, surfing or browsing the Web has increased as hand-held mobile devices such as cell phones, video games, and MP3 players have become smaller, mobile and essentially a direct extension of the person.

Look around you and you will see people with FHP using hand-held mobile device at tables in restaurants, at red lights in their cars, walking through the mall, in line at the grocery store, and even sitting in your reception area or exam rooms. We are a society that is "connected," now more than ever before, and we are suffering the health consequences.

The problem is getting worse each year. According to data released Dec. 15, 2009, by the Census Bureau, Americans sent 110 billion text messages in December 2008. In the same month in 2007, Americans sent 48 billion messages.² [Amanda Lenhart, a senior research specialist for the Pew Internet and American Life Project](#), is not surprised that the trend is especially prevalent among teenagers. "Teens are still developing their communication habits. Adults have preset ones already."³

The world is becoming more mobile. Children are getting mobile phones at younger and younger ages due to affordable prices and parents wanting to stay in touch. Hand-held mobile devices are performing more daily functions and are more portable than ever. Google's vice president of engineering and mobile applications, Vic Gundotra, noted: "We are seeing a very fundamental shift where increasingly, particularly among the young demographic and in Asian countries, the primary access to the Internet is not through the PC but through mobile devices."⁴

Fast Facts: The Consequences of Forward Head Posture

- Long-term forward neck posture leads to "long-term muscle strain, disc herniations and pinched nerves." (*Mayo Clinic Health Letter*, March 2000)
- In regard to respiratory dysfunction in chronic neck pain patients, a recent study "demonstrated a strong association between an increased forward head posture and decreased respiratory muscle strength in neck patients." (*Cephalgia*, February 2009)
- "For every inch of forward head posture, it can increase the weight of the head on the spine by an additional 10 pounds." (Kapandji, *Physiology of the Joints, Volume 3*)
- "Loss of the cervical curve stretches the spinal cord 5-7 cm and causes disease." (Dr. Alf Breig, neurosurgeon and Nobel Prize recipient)
- "90% of the stimulation and nutrition to the brain is generated by the movement of the spine," says Dr. Roger Sperry, Nobel Prize recipient for brain research. Dr. Sperry demonstrated that 90 percent of the energy output of the brain is used in relating the physical body to gravity. Only 10 percent has to do with thinking, metabolism, and healing, so when you have forward head posture, your brain will rob energy from your thinking, metabolism, and immune function to deal with abnormal gravity/posture relationships and processing.
- According to Rene Cailliet MD, director of the Department of Physical Medicine and Rehabilitation at the University of Southern California, forward head posture can add up to 30 pounds of abnormal leverage on the cervical spine. This can pull the entire spine out of alignment. FHP results in loss of vital capacity of the lungs by as much as 30 percent. This shortness of breath can lead to heart and blood vascular disease. The entire gastrointestinal system is affected; particularly the large intestine. Loss of good bowel peristaltic function and evacuation is a common effect of FHP. It causes an increase in discomfort and pain because proprioceptive signals from the first four cervical vertebrae are a major source of the stimuli which create the body's pain controlling chemicals (endorphins). With inadequate endorphin production, many otherwise non-painful sensations are experienced as pain. FHP dramatically reduces endorphin production.

- FHP has been shown to flatten the normal neck curve, resulting in disc compression, damage and early arthritis. (Roentgenographic findings of the cervical spine in asymptomatic people. (*Spine*, 1986; 6: 591-694)

Research performed by Informa Telecoms & Media reported that in 2008, almost 162 million smartphones were sold, surpassing laptop sales for the first time. The research also suggests that smartphone sales will continue to be immune to the global economic downturn. With technology advancing, sales of the hand-held mobile device staying strong and people's desire to stay connected, FHP will be more prevalent than ever.

Of course, forward head posture is not a new condition. Chiropractors have been treating and educating our patients on the dangers of FHP for years, and the health conditions that FHP or anterior head carriage contribute to are well-researched and documented. [See "Fast Facts" table above.] So, the next time you are performing a report of findings on a patient and you see a straightening or reversal of the normal cervical curve with or without osteophytes at the anterior bodies of the lower cervical spine and possible disc degeneration, ask about the patient's texting habits and other use of hand-held devices. The connection is obvious, meaningful, and demands a need for care.

Discuss with patients the negative effects of a repetitive stress syndrome and make them aware of how many hours they are using their hand-held mobile devices and how many hours their children are using these devices. I am sure that you will see a light bulb turn on above their head indicating that they "get it." You will have greater compliance with their care plan because they will understand what is causing their condition, and how it will negatively affect their body in the future.