

## Text Neck Syndrome: A New Concern for Physical Therapists Worldwide

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### Abstract

The phrase “Text Neck” was coined by DR. Dean Fishman when he noticed that more and more young adults were coming to his office with similar complaints. They all had neck pain, headaches, shoulder pain, or numbness and tingling into the upper extremity [1]. In the past few years, touch screen smart phones have replaced most of the keypad phone product due to their versatility and abundance of applications. However, as many people maintain their neck flexed when using portable devices, there is a growing debate about the effect of Smart phones on musculoskeletal system among prolonged users of these devices, increasing the risk for development symptoms as chronic neck pain and shoulder pain [2].

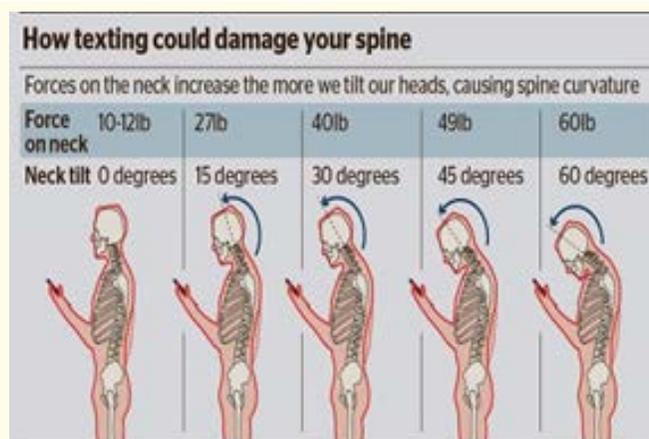
**Keywords:** Text Neck; Neck Pain; Shoulder Pain; Smartphone; Texting

The frequent prolonged forward flexion of the neck and head causes changes in cervical spine, curve, supporting ligaments, tendons, musculature and bony segments, eventually causing natural curvature of the neck to reverse, potentially leading to early spinal arthritis, disc degeneration, headaches and up to 30% decrease in lung capacity. Children are most at risk because their head are larger in relation to their body size than adults [1].

Recently, a few epidemiological studies reported a high prevalence of neck-shoulder pain symptoms among mobile devices users. A study in Canada indicated rates of 46-52% in shoulder symptoms among 140 individual and 68% in neck symptoms [2]. Another study in china reported over 40%of neck-shoulder pain among 2575 young mobile users [3].

In upright posture when the ears are aligned with the center of the shoulders, the weight of the average head exerts approximately 10-12 pounds of force through the muscles of the neck [4].

Text Neck directly affects the spine while flexing the head forward at varying degrees (Figure 1) - when the head tilts forward at 15 degree, the force on the neck surge to 27 pounds, at 30 degrees 40 pounds, at 45 degrees 49 pounds and at 60 degrees 60 ponds [4,5].



**Figure 1:** By H. King on October 13, 2015, “Text Neck is Painful – Avoid it !”.  
<http://www.hilaryking.net/blog/health/avoid-developing-text-neck.html>

One study showed that neck flexion is affected by the posture while using the smart phone ( $P < .05$ ). Neck flexion in the standing position is larger than that in the sitting on the floor position. Neck flexion was affected by smart phone usage duration ( $P < .05$ ). In general, as usage time increases, the neck flexion angle increases [6].

A research study in Thailand on “Text Neck” that has become a global epidemic affecting millions of people of all ages using Smartphone. The main research instrument was an internet-based survey which yielded 642 responses. On occasions, 62.3 percent of users experienced pain at the neck and/or shoulder region when working on the computer or smart phones [7].

One study in Sweden aimed to examine whether texting on a mobile phone is a risk factor for musculoskeletal disorder in the neck and upper extremities in a population of young adults. In a longitudinal population – based cohort study with Swedish young adults (age 20 - 24) data were collected via a web based questioner and after one and five years. Cross sectional associations were found between text messaging and reported ongoing symptoms in neck and upper extremities (OR1.3 - 2.0) [8].

The text neck epidemic is a global phenomena and problem. The American Chiropractic Association has advised to control text neck by avoiding and limiting activities on mobile and making phone calls instead of texting, teaching the correct posture to decrease stress on the spine [9].

One research proved that postural correction combined with selected exercise training program improves the upper extremity symptoms. The researchers took one hundred university students and randomly divided them into 2 groups. Where experimental group practiced 12 weeks program of exercise training and postural correction, while the control group were advised to follow their usual routine for Smartphone utilization. Measurements of hand grip strength, and key pinch grip strength were conducted for both groups before executing the practice. After 12 weeks, results showed significant improvement in all outcomes measured in the experimental group ( $p < 0.05$ ) with improved hand grip and key pinch grip, and upper extremities disabilities and symptoms associated with Smartphone use among university students [10].

Text neck syndrome is a common painful condition of the neck and shoulders among Smartphone users. Using the Smartphone while keeping the head in forward pending position for a prolonged period of time affects the cervical spine and its curvature, the muscles, supporting tendons and ligaments. As listed in this review some of the simple postural correction exercises and proper handling of the Smartphone usage can help decrease the developing of cervical and upper extremity musculoskeletal disorders. Global awareness needs to be spreaded among public and medical community.

### Bibliography

1. Fishmn D. “Response to Text Neck and Mobile Phone Viewing Angle: A Case Study”. The Text Neck Institute.
2. Berolo S., *et al.* “Musculoskeletal symptoms among mobile hand-held device users and their relationship to device use: A preliminary study in a Canadian university population”. *Applied Ergonomics* 42.2 (2011): 371-378.
3. Shan Z., *et al.* “Correlational Analysis of neck/shoulder Pain and Low Back Pain with the Use of Digital Products, Physical Activity and Psychological Status among Adolescents in Shanghai”. *Plos One* 8.10 (2011): 78-109.
4. Lee H. “Neck Pain and Functioning in Daily Activities Associated with Smartphone Usage”. *Journal of Korean Physical Therapy* 28.3 (2016): 183-188.
5. Kim HJ and Kim JS “The relationship between smartphone use and subjective musculoskeletal symptoms and university students”. *Journal of Physical Therapy Science* 27.3 (2015): 575-579.

6. Atien L. "Text Neck Syndrome: answer lies in good posture". *The Newtimes* (2017).
7. Lane P. "Text Neck Epidemic: a Growing Problem for Smart Phone Users in Thailand". The Twelfth international conference on e-learning for knowledge – Based Society (2015): 1-55.
8. Guatafsson E., *et al.* "Texting on mobile phone ad musculoskeletal disorder in young adults: A five-year cohort study". *Applied Ergonomics* 58 (2017) 208-214.
9. Cruzz I. "Potential Negative Effect Toward Health and Well being in Relation to Smart Device Use". The Highland Collage at Digital Commons (2014).
10. Abdelhameed A and Abdel-aziem A. "Exercise training and Postural Correction Improve Upper Extremity Symptoms among Touch screen Smartphone Users". *Hong Kong Physiotherapy Journal* 35 (2016): 37-44.

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