

Need of the Hour

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Belonging to Millennial generation, Generation Z and Generation Alpha we have lot of changes in livelihood and lifestyle. From an orthopaedic surgeons perspective, we notice a change in diseases and disorders specific to this millennial generation. Lot of changes in lifestyle of people in past 20 years have caused newer challenges in the way doctors have been treating their patients. I hereby present a sneak peek into some of the generation specific diseases and disorders due to rampant explosion of technology in past twenty-five years. From usage of mobile phones to computers and the way we commute every day. The way we sit, the way we sleep and the way some of the young generation earns livelihood has many disorders related to posture, stress, overuse and work environment.

Key Words: Millennial generation, Indoor generation, Technology and its health implications

INTRODUCTION

Generation Z, generation Alpha these words (The words, generation Z and generation Alpha) merely sprang up from the technological advancements. Generation Z is demographic cohort with date of birth between mid-1990s to late 2010. Generation Alpha is demographic cohort with date of births between 2013 to 2025. Fourth industrial revolution focuses on the concepts of IoT (internet of things), Artificial intelligence, Virtual reality and Machine learning. Most of the today's activities revolve around technology from eating food to buying a home. From booking movie tickets to buying flight tickets, from selecting a doctor to

robotic surgeries everything happens with a click on screen. Every person is connected with technology and to find a person with zero technological usage is nearly impossible. Yes, technology and technological advancements have made life easier, simpler and customised to everyone's choices. we relate few diseases and disorders that have been related to rampant explosion of technology in daily life.

TEXT THUMB/DEQUERVAINS DISEASE/ STENOSING TENOSYNOVITIS OF THUMB

It's nearly impossible for most us to stay without a mobile phone. The way face of mobile has changed in last twenty years is astonishing. From the days of walkie talkie to today's most advanced touch screen mobiles. The average time spent by a young adult in India on mobile phones is 5 hours per day [1]. Imagine the number of times he uses his thumb to operate the mobile interface, The number of messages sent and the number likes clicked and number of words typed into WhatsApp and these whole lists continue every day and what happens is overuse of musculotendinous structures around thumb [2]. Some of the mobile gaming enthusiasts

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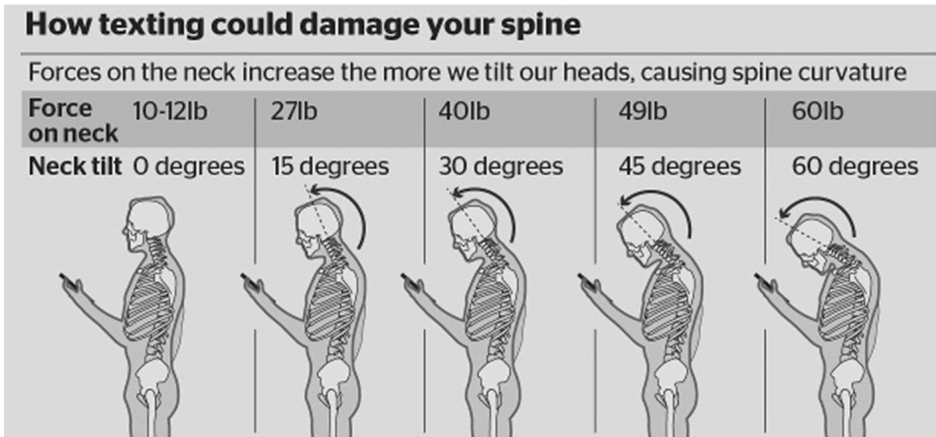


Fig. 1. Damasceno GM, Ferreira AS, Nogueira LAC, Reis FJJ, Andrade ICS, Meziat-Filho N. Text neck and neck pain in 18-21-year-old young adults. *Eur Spine J* 2018;27(6):1249-54.(source of the picture)

earn their livelihood through gaming and betting. Thumb actions during smart device usage are flexion, abduction, adduction, and opposition. When thumb is used thru extreme range of movements on a small key board it causes lot of stress on wrist tendons and thumb tendons thus predisposing to DeQuervains disease [2,3]. DeQuervains disease is tendinitis of first extensor compartment tendons due to overuse.

TECH NECK/TEXT NECK

The posture related diseases of spine are most common in desk related jobs which are most commonly software workhouses and consulting services. The posture may cause severe stress on cervical spine and lumbar spine (Fig. 1) [4]. The angle of inclination in case of cervical spine causes more stress on cervical musculoskeletal structures causing cervical disc prolapse and spasms [5,6]. Prolonged sitting and desk jobs cause similar stress on lumbar spine and causes lumbar disc prolapse and lumbar spondylosis.

Effect of posture on spine biomechanics is depicted in the below picture.

SUN EXPOSURE/SUN SHINE

Hypovitaminosis D is major cause for osteoporosis. The silent disease of millennium has just blown out of proportion. Most of young active people now a days spend less than 5 minutes under sunlight. They are hardly exposed to sunlight. The corporate work houses have no space for sunlight. most of the schools start at 8 am and end at 5 pm.

Schools in most of the metros have no Play area. Thus having very less sun exposure is leading to manifestations of hypovitaminosis D [7]. Surprisingly it's the medical community which are at high risk for hypovitaminosis [8-11]. The ICU staff, the operation theatre staff and critical care team are under serious threat of hypovitaminosis.

COMMUTE KNEE/CABBY KNEE/ GAS PEDAL KNEE

A car was an affordable means of transport today for almost everyone. People who own a car were increased compared to what it was few years back. Cab driver is one of the major occupations today. The average time spent by driver in traffic in major metro cities was five hours [12]. The posture of right knee and mode of transmission of car and duration of work had impact on kinematics and dynamics of knee [13,14]. Cab drivers with long shifts suffered from medial knee pain and research proved of cartilage injury. Immediate medical attention and management is the only option before the damage becomes irreversible [15].

CONCLUSION

In an era where “one click away”, “instant” are the most catchy phrases with individuals wanting instant cures for problems doctors should understand and change mode of treating young generation. Need of the hour is counseling about postural adjustments at work site, regular exercise, sun exposure and decreasing smart device addiction should

be inculcated as a primary preventive measure rather than secondary. We have highlighted some of the major issues pertaining to today's lifestyle changes. It's time for doctors both physicians and surgeons alike to be more aggressive when treating young people before damage becomes irreversible.

So, the need of the hour to prevent reversible disorders from becoming irreversible diseases are

1. Adequate sun exposure
2. Follow good posture at work place
3. Regular simple exercise
4. Healthy diet - balanced diet and nutrient diet
5. Gadget holidays - completely avoid using gadgets few days a month.

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