



STRATEGIES FOR REDUCING SCREEN FATIGUE

Mansi Bhagwate, MS OTR/L

About the presenter

- **Mansi Bhagwate** is an Occupational Therapist with over twelve years of experience ranging from NICU to geriatrics
- She completed her Bachelor's Degree in India and moved to the US to pursue her Master's degree at the University of Pittsburgh.
- Moved to Philadelphia and decided to pursue a degree in Public Health
- Worked for Elwyn for the past 8 years
- Recently launched her private, nature-based practice Make your Mark Occupational Therapy services
- Hobbies: reading (a ton of) books, hiking, rock climbing and writing fiction.

Computer Vision Syndrome

American Optometric Association

- CVS or Digital Eye Strain causes visual and non-visual problems when viewing digital screens for extended periods.
- The level of discomfort appears to increase with the amount of digital screen use.
- Symptoms of CVS occur because the visual and/or physical demands of the task exceed the visual abilities of the individual to comfortably perform them.
- Most at risk: 2 hours or more each day

Who is affected?

- Working population
 - EVERYONE!
- College students
- Young children

How much screen time?

- **American Academy of Pediatrics**

- Children younger than 2 should get ZERO screen time
- Children between 2 and 6 years: up to 1 hour a day
- Children older than 6: no more than 2 hours a day

- **CDC**

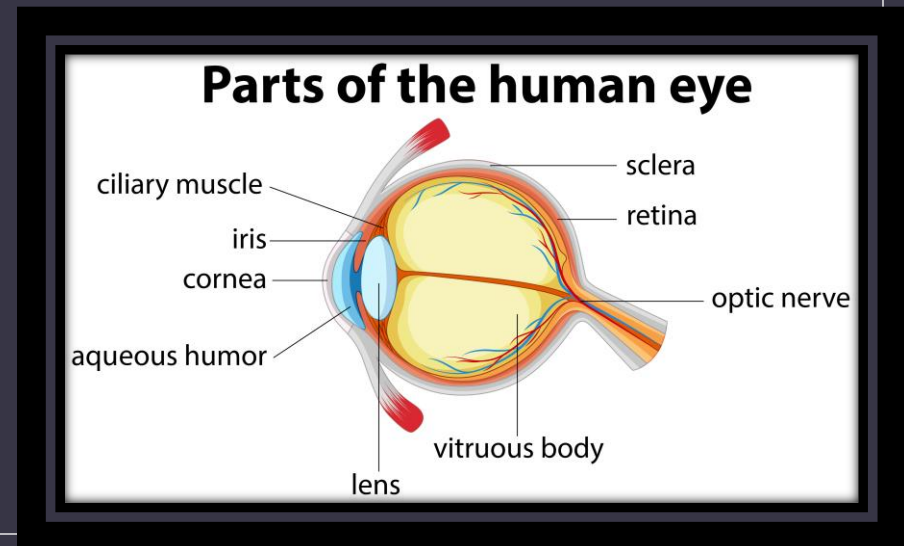
- Infants and toddlers spend 2-3 hours
- Young children spend 7-9 hours
- Older children and adults spends 10-12 hours

Causes of Screen Fatigue

- Lack of blinking
- Visual impairment
- Poor lighting
- Screen Glare
- Print size/Screen size
- Improper viewing distances
- Poor seating posture
- Blue light
- A combination of these factors

Mechanism of Screen fatigue

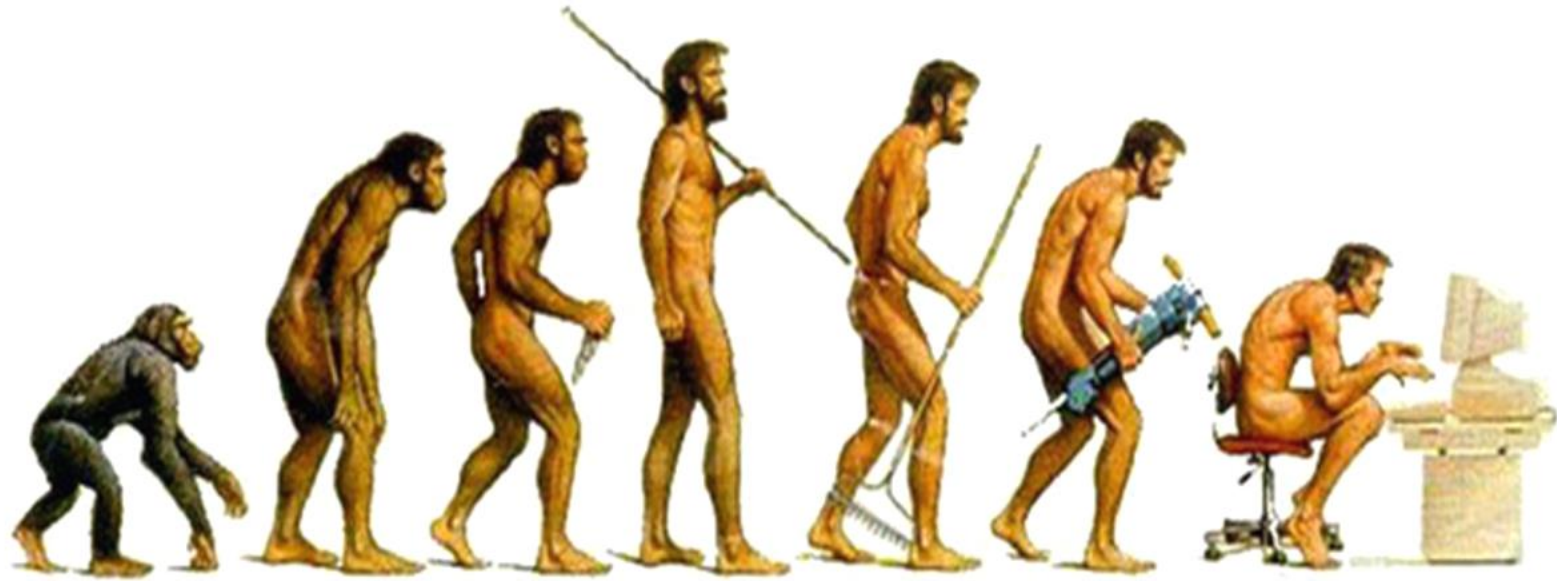
- Ciliary muscles of the eye control accommodation for viewing objects at varying distances
- Blue light from screens: disrupts circadian rhythms, and even macular degeneration
- Lack of blinking



Signs and Effects of Screen Fatigue

- Eyestrain
- Dry eyes
- Headaches
- Tech neck
- Blurred vision
- Aches and pains: Cumulative Trauma Syndrome

Note: Increased exposure to screens also increases the risk of heart attacks, stroke, obesity, along with depression and anxiety.



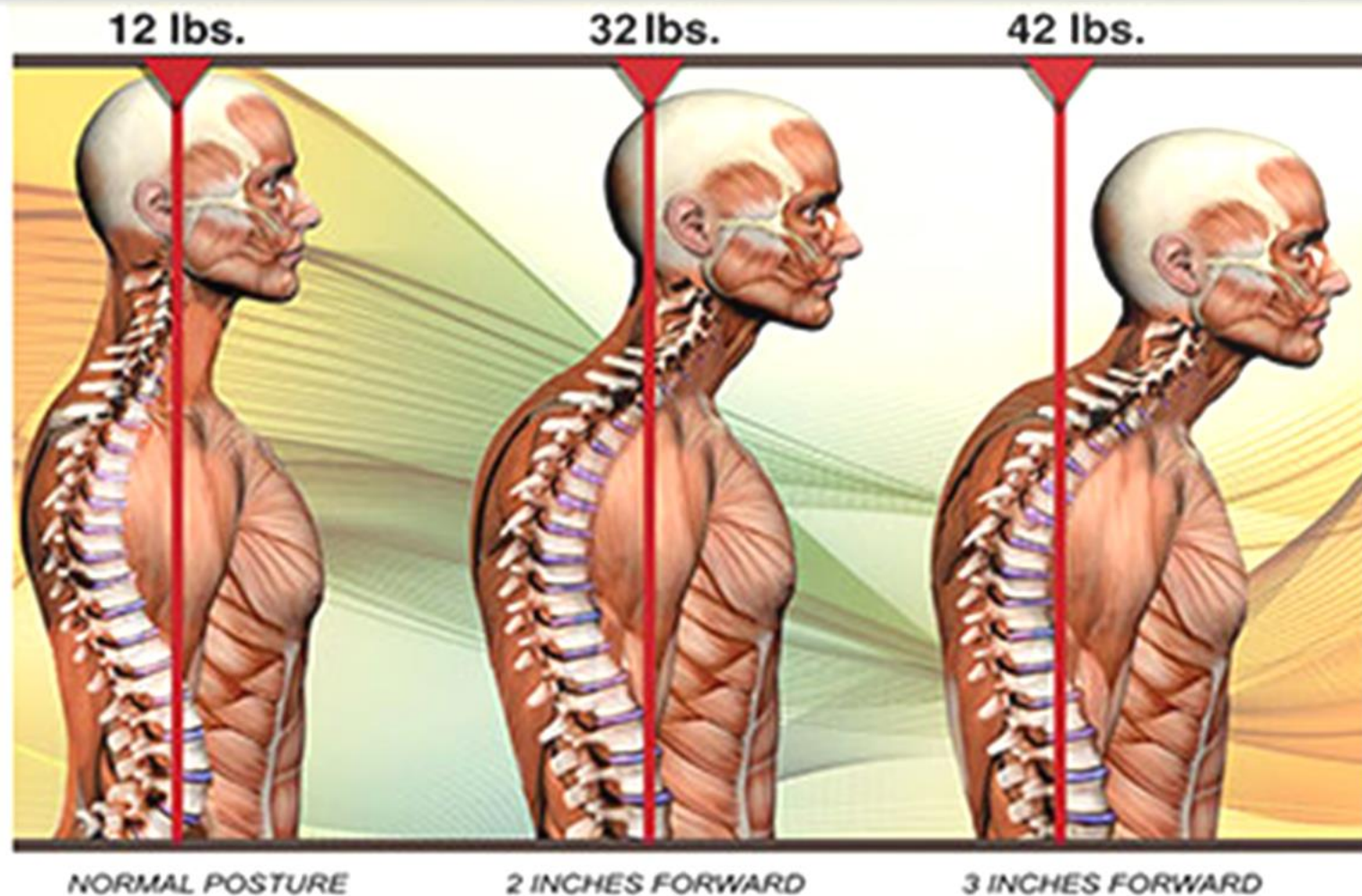


Image 1 - The brain perceives the head's weight as increasing by 10lbs. for every inch it migrates forward. © erikdalton.com

Tech neck: From Fonke Chiropractic and Decompression Center

Children and posture



Cars and screens

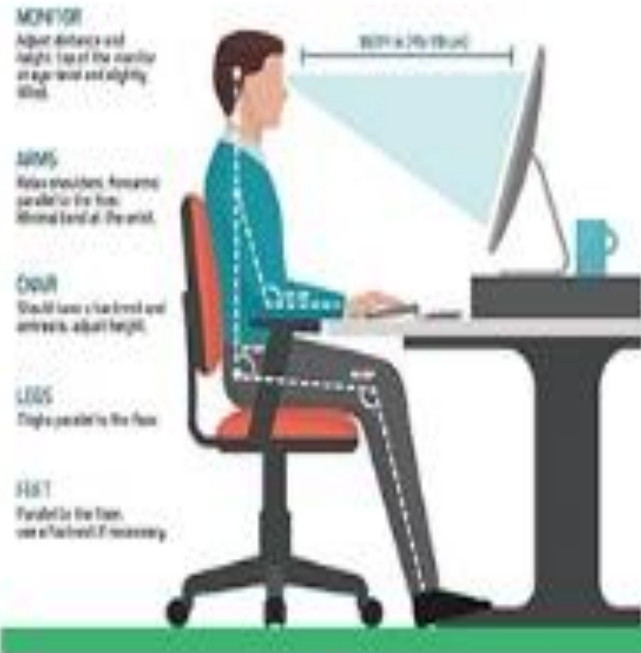
- Screens are common on road trips
- Affects development:
 - Coping skills
 - Interpersonal skills
 - Creative play/imaginative play
- The vestibular system and screens:
 - Underdeveloped vestibular system
 - Attentional issues
 - There just isn't much research.



SO WHAT CAN WE DO?



WRONG SITTING POSTURE



CORRECT SITTING POSITION



CORRECT STANDING POSITION

- MONITOR**
Adjust distance and height: top of the monitor at eye level and slightly tilted.
- ARMS**
Relax shoulders. Forearms parallel to the floor. Elbow level at 90 degrees.
- CHAIR**
Should have a flat level and armrests, adjust height.
- LEGS**
Thighs parallel to the floor.
- FEET**
Parallel to the floor, use a footrest if necessary.

Improve Posture

Tips to Reduce Screen Fatigue

- Lighting: Position the screen away from windows or another light source to reduce glare
- Adjust brightness of the screen to match the brightness of the room.
- Turn on blue light filters or wear blue light glasses or put a tint on the computer/phone screen
- Accessibility features on laptop/cellphone

Tips to Reduce Screen Fatigue

- Rest breaks and exercises:
 - Rest eyes for 5-10 minutes after every two hours
 - 20-20-20 principle
 - Palming exercises
 - Neck and shoulder stretches
 - Forehead massage and head taps
 - Reminders to maintain upright posture
 - Alternative seating or standing desks
 - Remember to blink and use eye drops

Tips for Reducing Screen Fatigue

- For headaches
 - Close eyes for 30 seconds and relax your forehead
 - Tap the forehead gently for 30 sec-1 minute
 - Tap the face and head gently for 30 seconds
 - Gentle yoga poses

Tips for children

- Embed more outdoor times in the routine:
 - Nature-bingo
 - Scavenger Hunts
 - Hikes
 - Volunteering
- Follow Sprinkle in Learning, 1000 Hours Outside, Rooted in Play, Rewild the Child and Make your Mark OT for ideas.

Limiting Screen Time?

- Limiting screen time seems like a good idea but is it actually feasible?
- With many schools now making extensive use of computers in the classroom, the recommended limit of two hours a day is far exceeded before a child returns home from school.
- With these factors, computer vision syndrome will be a problem not going away anytime soon

However...

- YOU CAN
 - Control your environment at home
 - Be mindful of screen use
 - Try the exercises from this presentation
 - Try activities from this presentation
 - Join playgroups, pursue hobbies or meditate

References

- <https://www.health.harvard.edu/staying-healthy/blue-light-has-a-dark-side>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6020759/>
- <https://otswithapps.com/2020/05/08/tips-tricks-tech-to-reduce-digital-eye-strain/>
- <https://journals.sagepub.com/doi/10.1177/2165079917731790>
- <https://newsroom.osfhealthcare.org/screen-time-for-kids-how-much-is-too-much/>

Questions?

Thank you for attending!

Get in touch:

info@makeyourmarkot.com
www.makeyourmarkot.com