

Basic Ergonomic Fundamentals:

Learning How to do Computer Workstation
Evaluations In Person and Virtual

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A little about me

- Ergonomist with 20 years of experience
- Prior, working as a graphic designer, I developed repetitive strain injury resulted from excessive work with a computer mouse
- I retrained as an ergonomist and graduated from San Jose State University with a Masters degree in Human Factors and Ergonomics

Prevention

- is your best measure
the key to reducing time loss due
to work place injuries
in contrast to a cure

Working from home without appropriate equipment or workplace assessments has increased MSD

- More than 1/3 reported more aches, pain and discomforts in the **neck (37%)** and **back (35%)** than usual.
- An increased level of fatigue was seen at **42%**
from: Wellbeing under lockdown, Occupational Health at work
- With **two in five** workers reporting new pain or increased pain in their shoulders, back or wrists, it's time to make home workstations more ergonomically sound.

<https://news.chubb.com/Chubb-Survey-of-Americans-Working-from-Home> Ergo Pandemic Study: Chubb

Musculoskeletal Disorders

- Carpel Tunnel Syndrome
- DeQuervains Syndrome
- Thoracic Outlet Syndrome
- Chronic Back Pain
- Tendinitis
- 7 out of 10 people have lower back pain

OSHA Risk Factors

- Awkward postures
- Force and pressure
- Repetition
- Duration

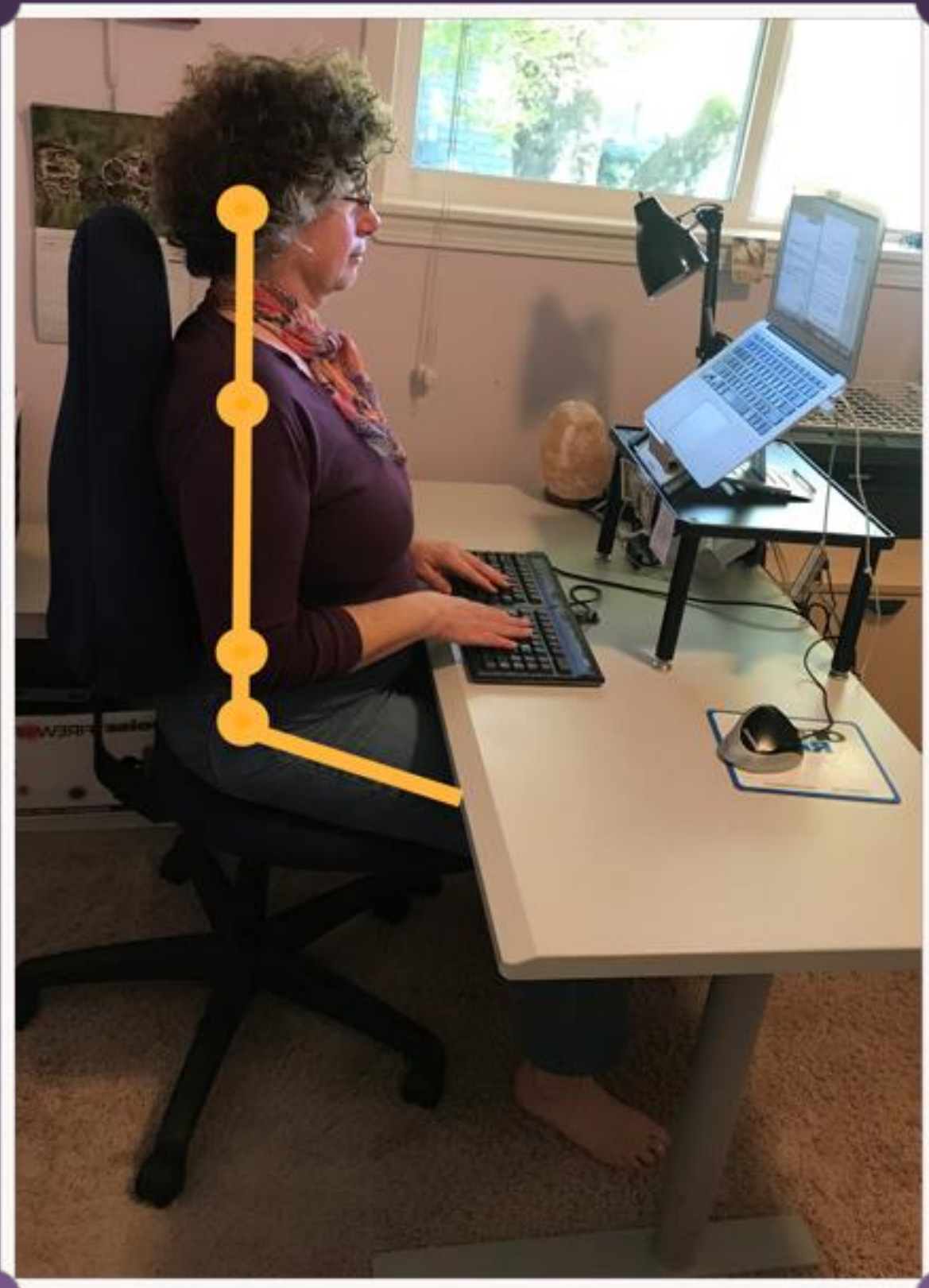
Risk of Not Correcting/Injury Prevention

- If you expose yourself to the risk factors and perform poorly, injury can result
- Warning signs: pain, fatigue, numbness, tingling, weakness etc
- Symptoms can be intermittent or persistent but listen to them and INSPECT what you are doing and HOW!

Length of Evaluations

- 1/2 hour preventative
- 1 hour discomfort
- Virtual 1 hour

NEUTRAL POSTURE



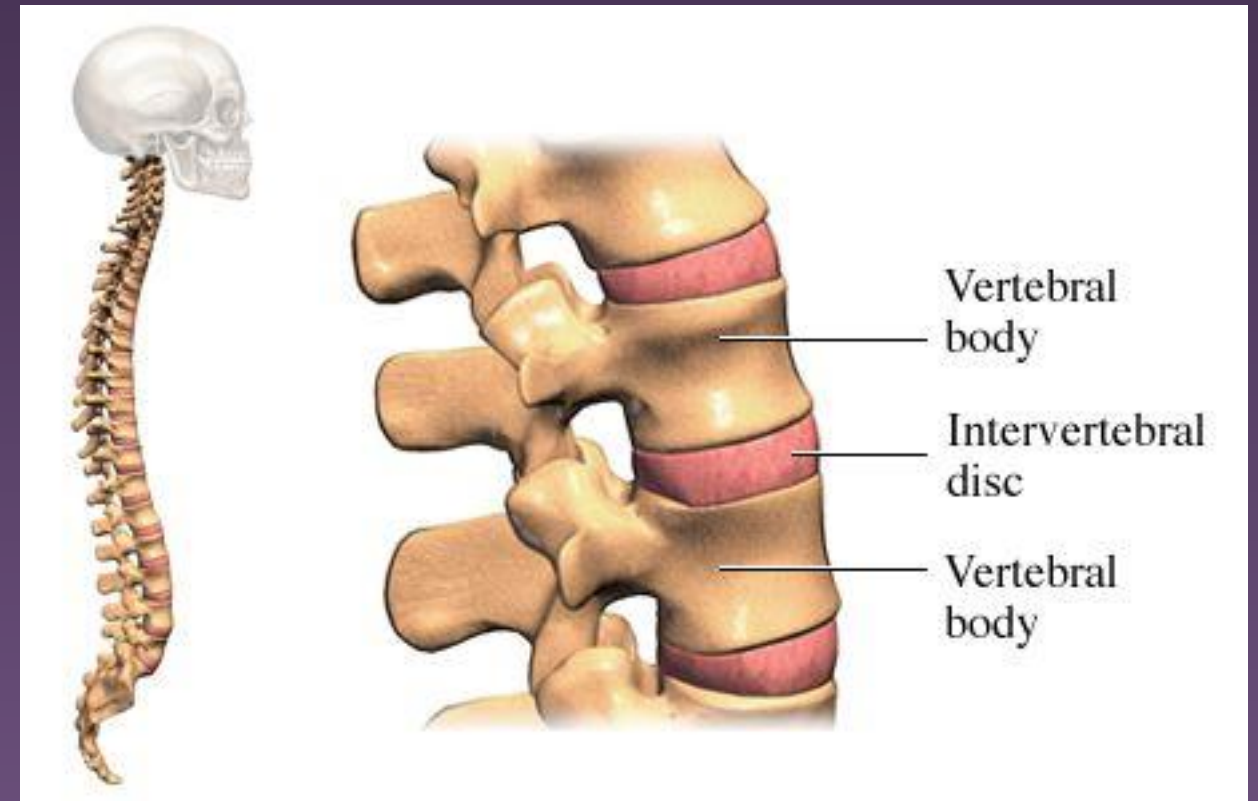
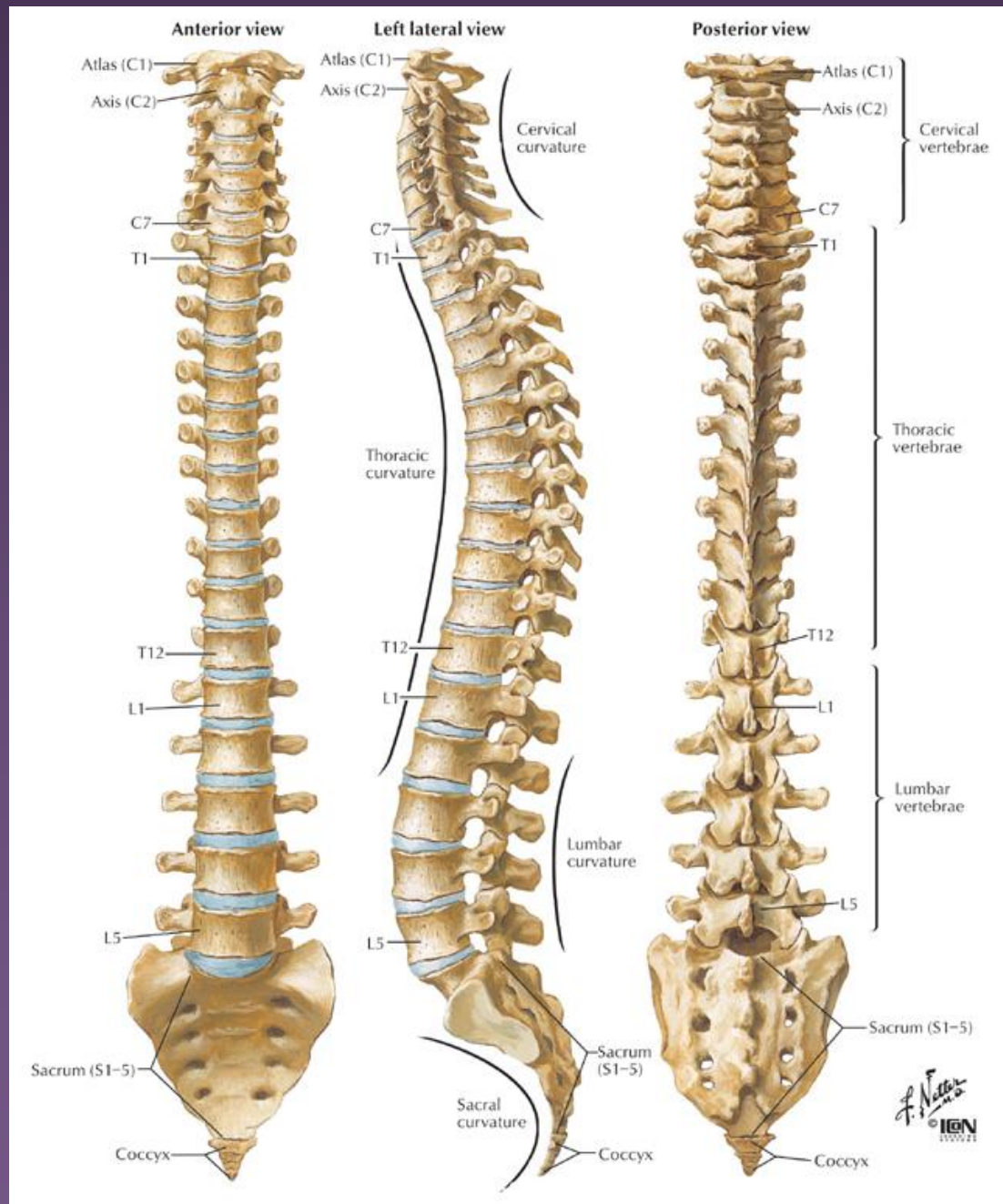
- Sit on sitz bones with good alignment
- Line up your ear, shoulder, elbow and hip

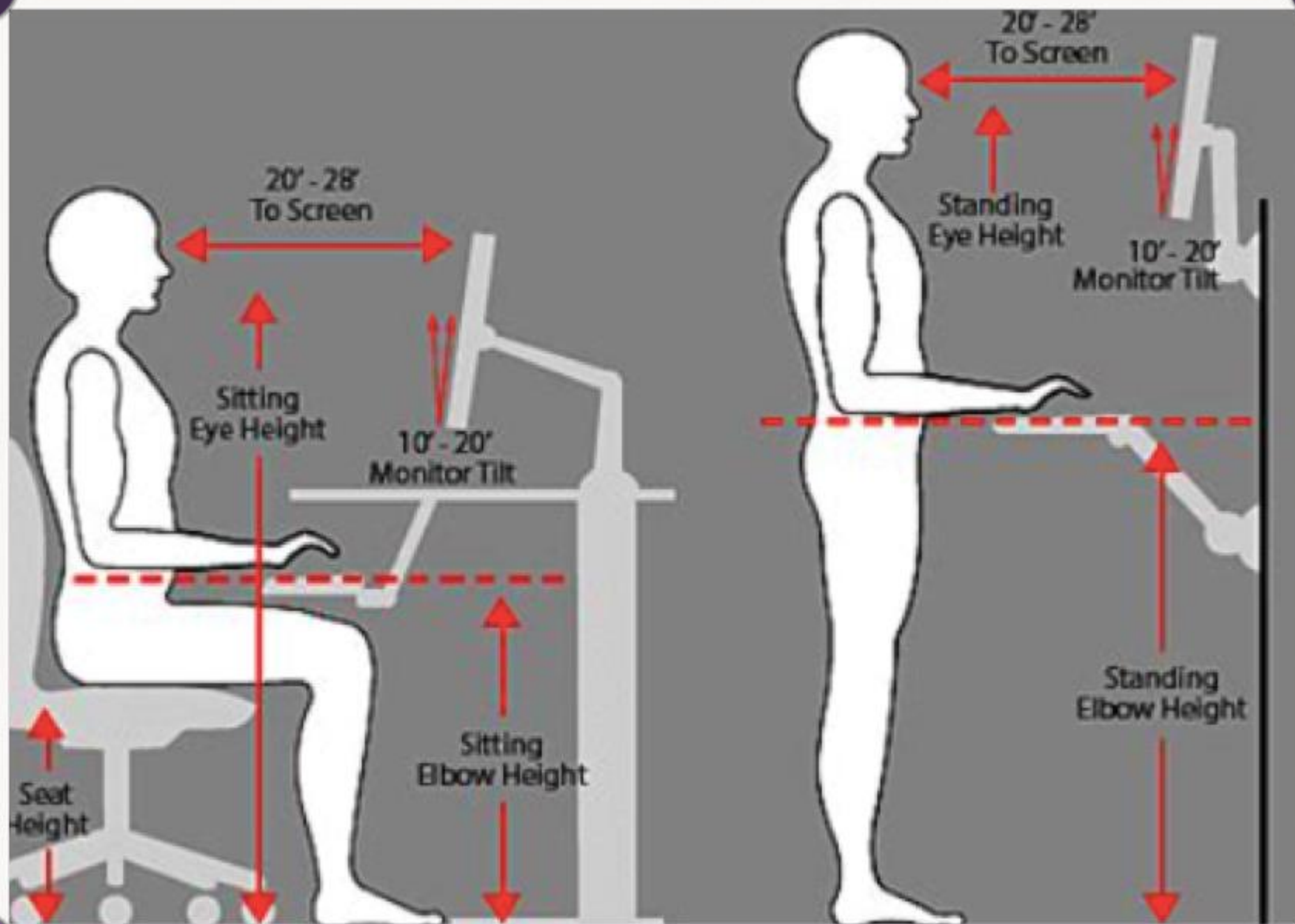
Red area are the “sitz” bones.



- Eyes should be 1-2” from the top of the monitor
- Bend your elbow so forearm is parallel to ground while maintaining your natural hand and wrist position
- Hips should be higher than knees

Spine

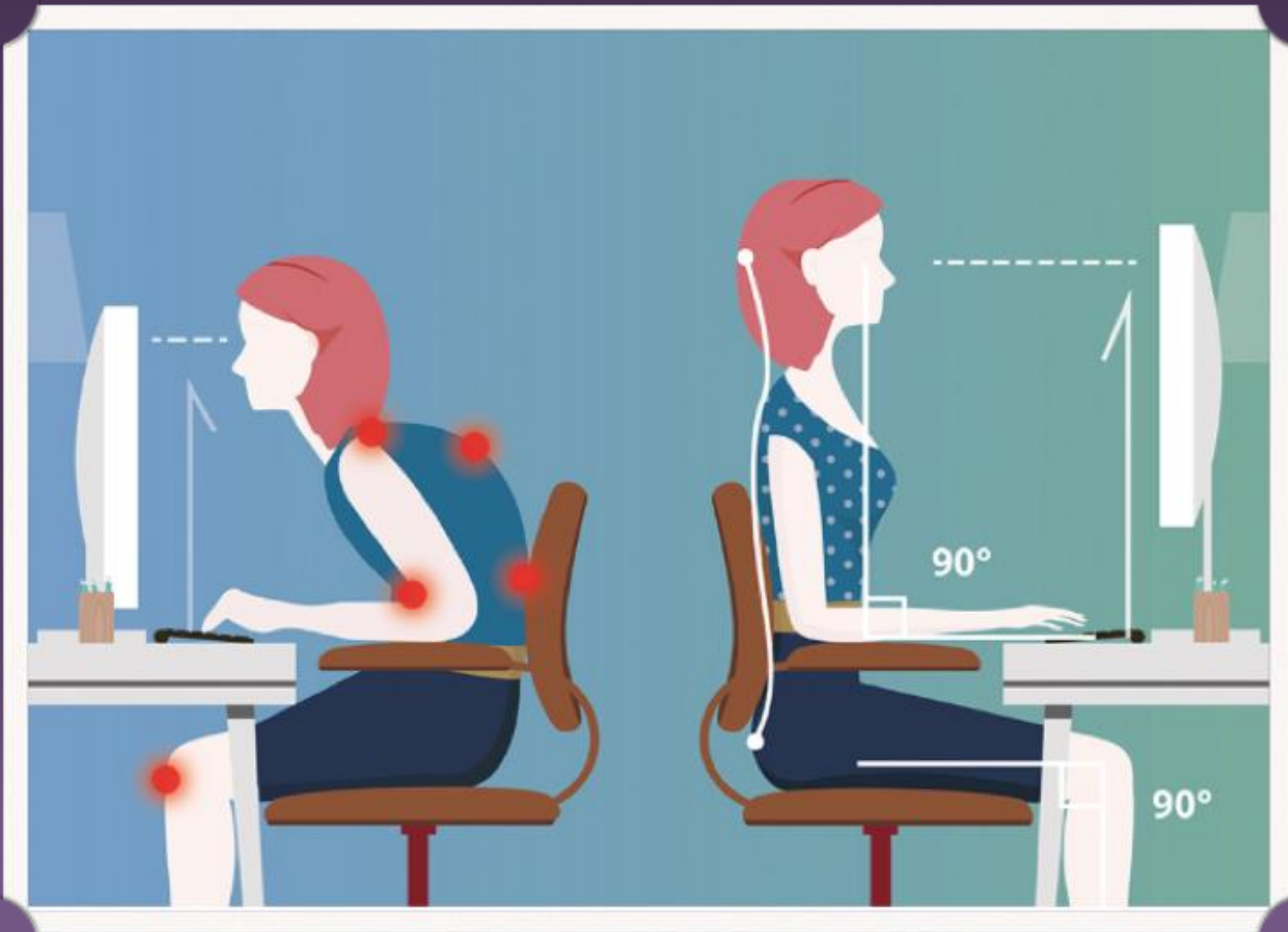


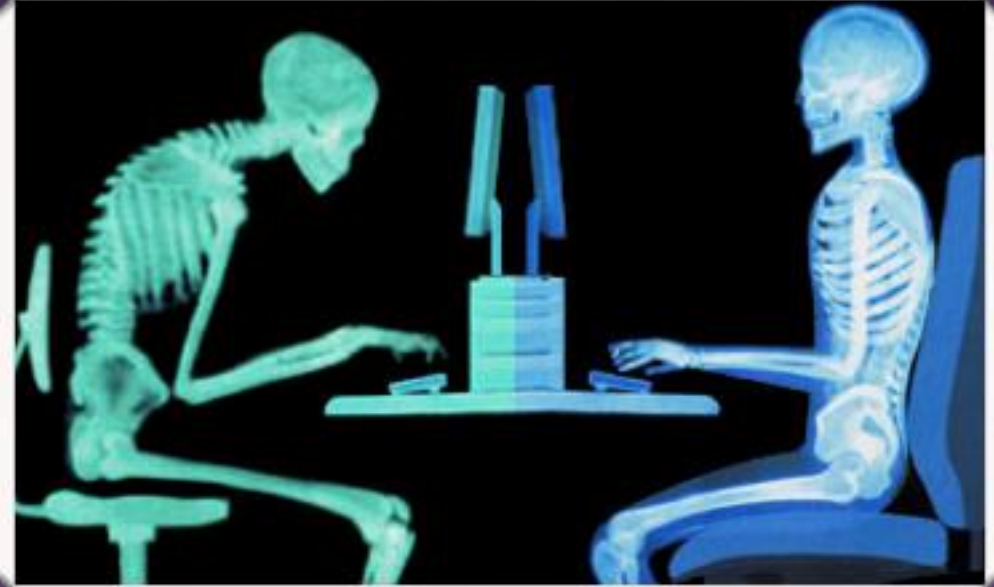
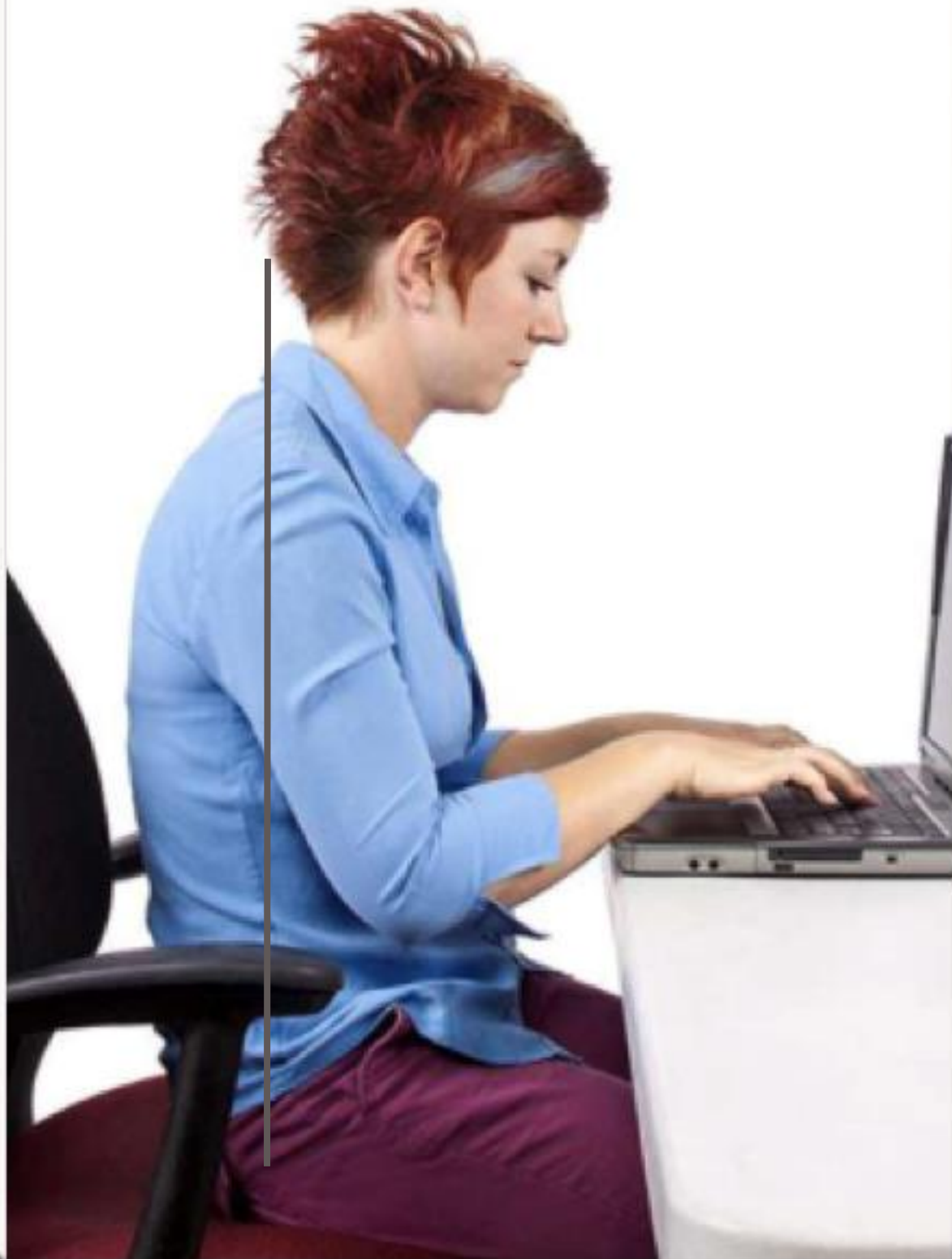


How to Take Measurement

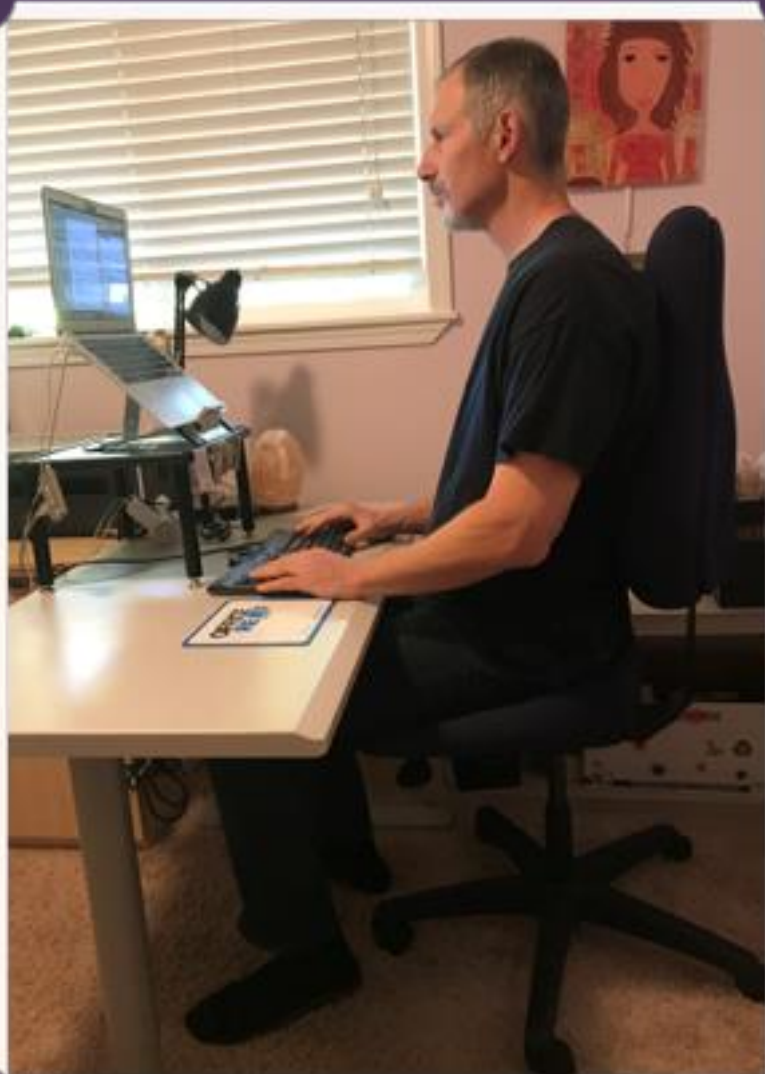
- Chair Height
 - Leg length
- Elbow Height
 - Sitting/Standing
- Eye Height
- Desk Height
 - Sitting/Standing
- Monitor Height

SITTING





DESK HEIGHT



KEYING



RIGHT!



RIGHT!



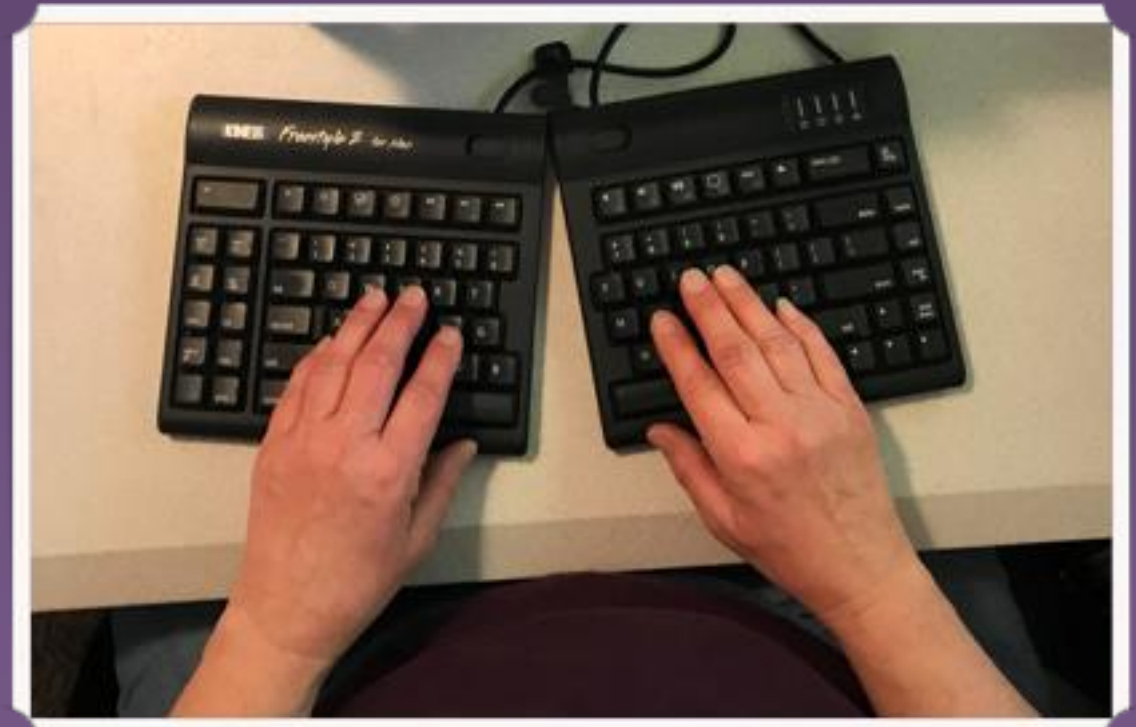
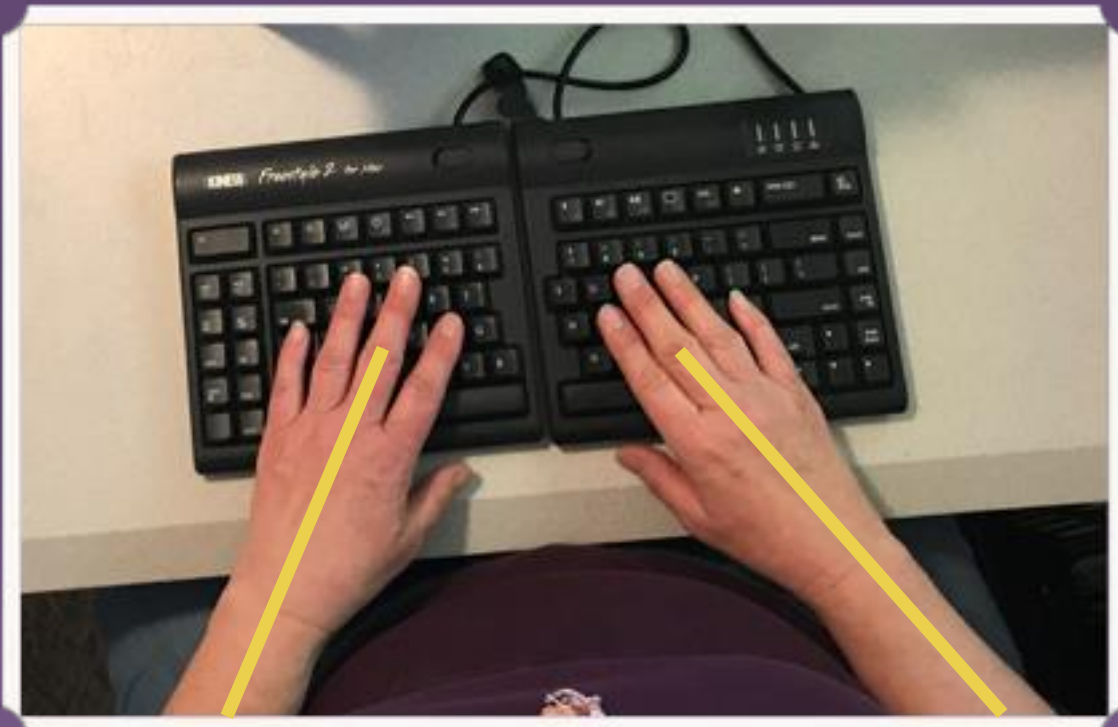
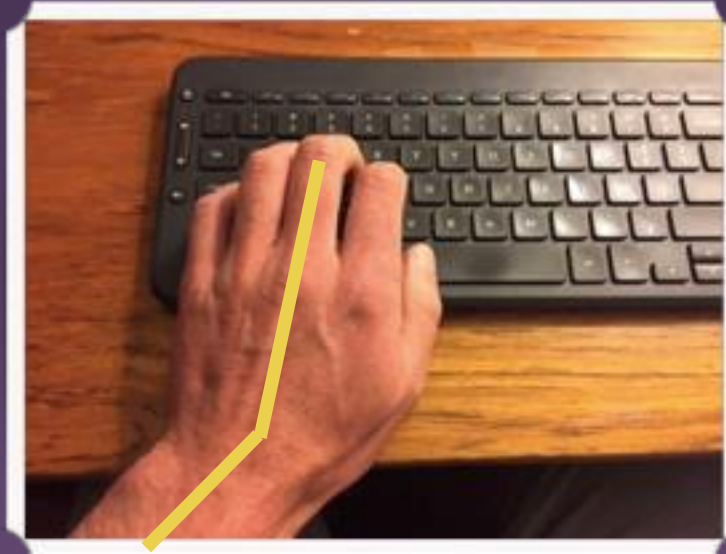
WRONG!



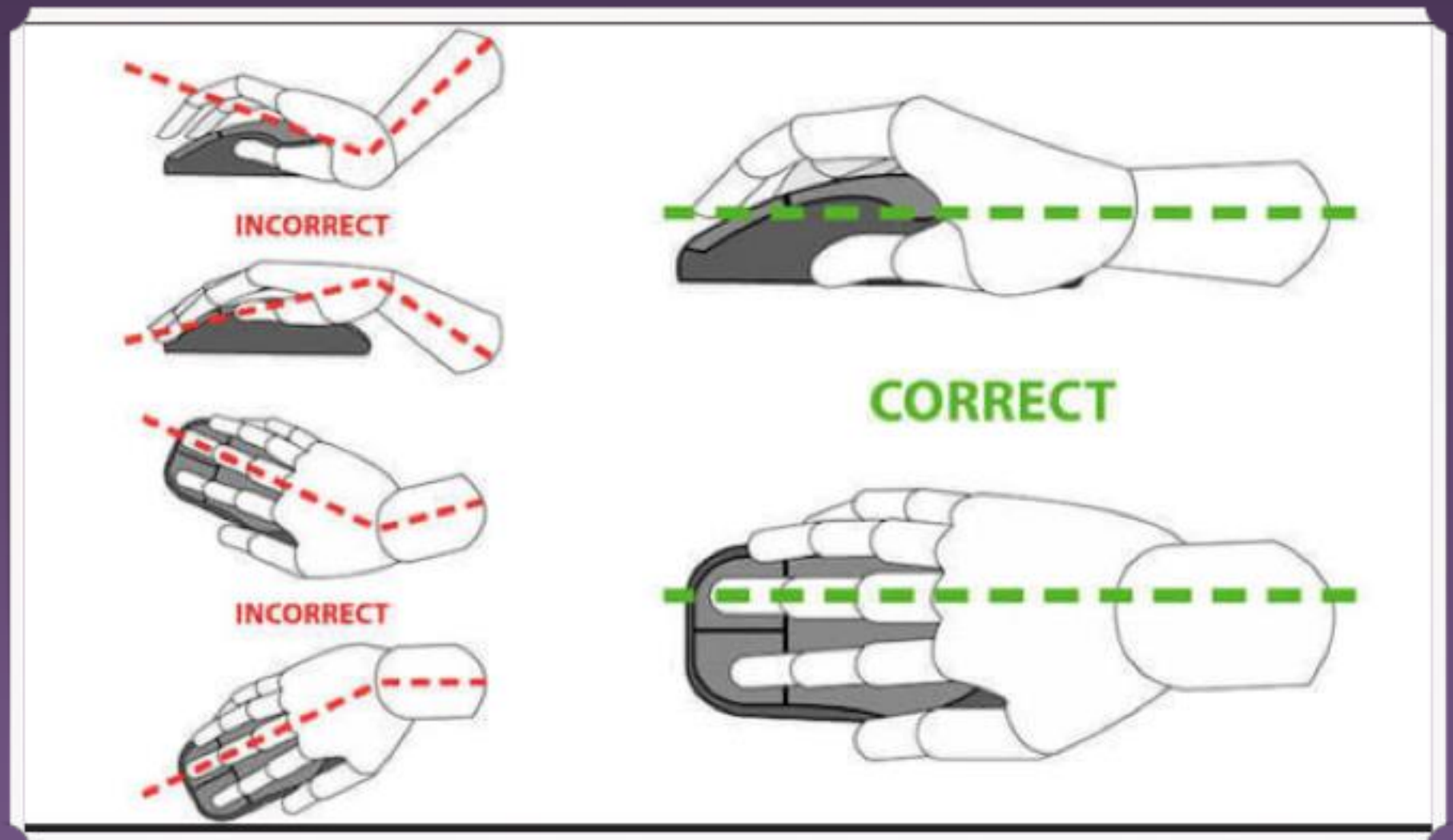
WRONG!



KEYING



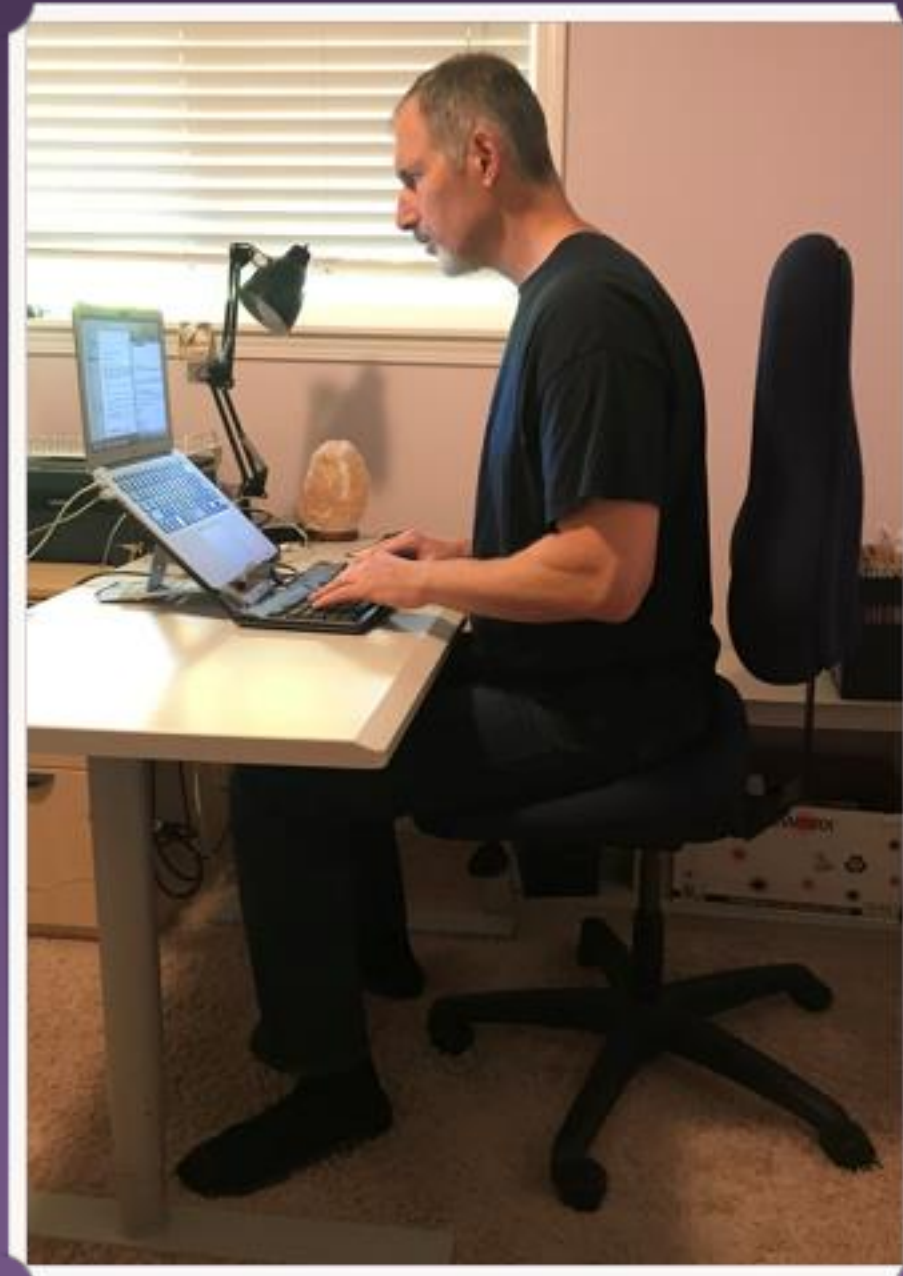
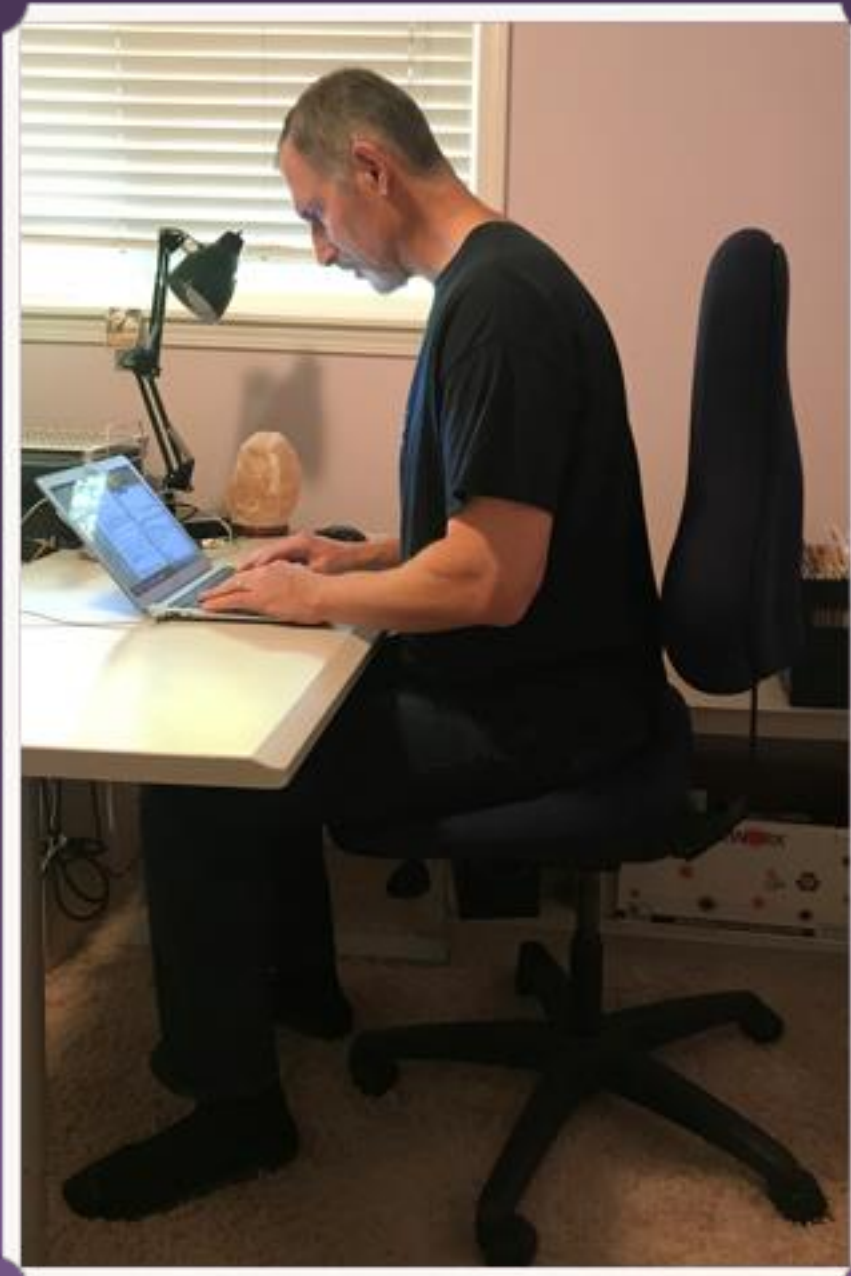
Mousing



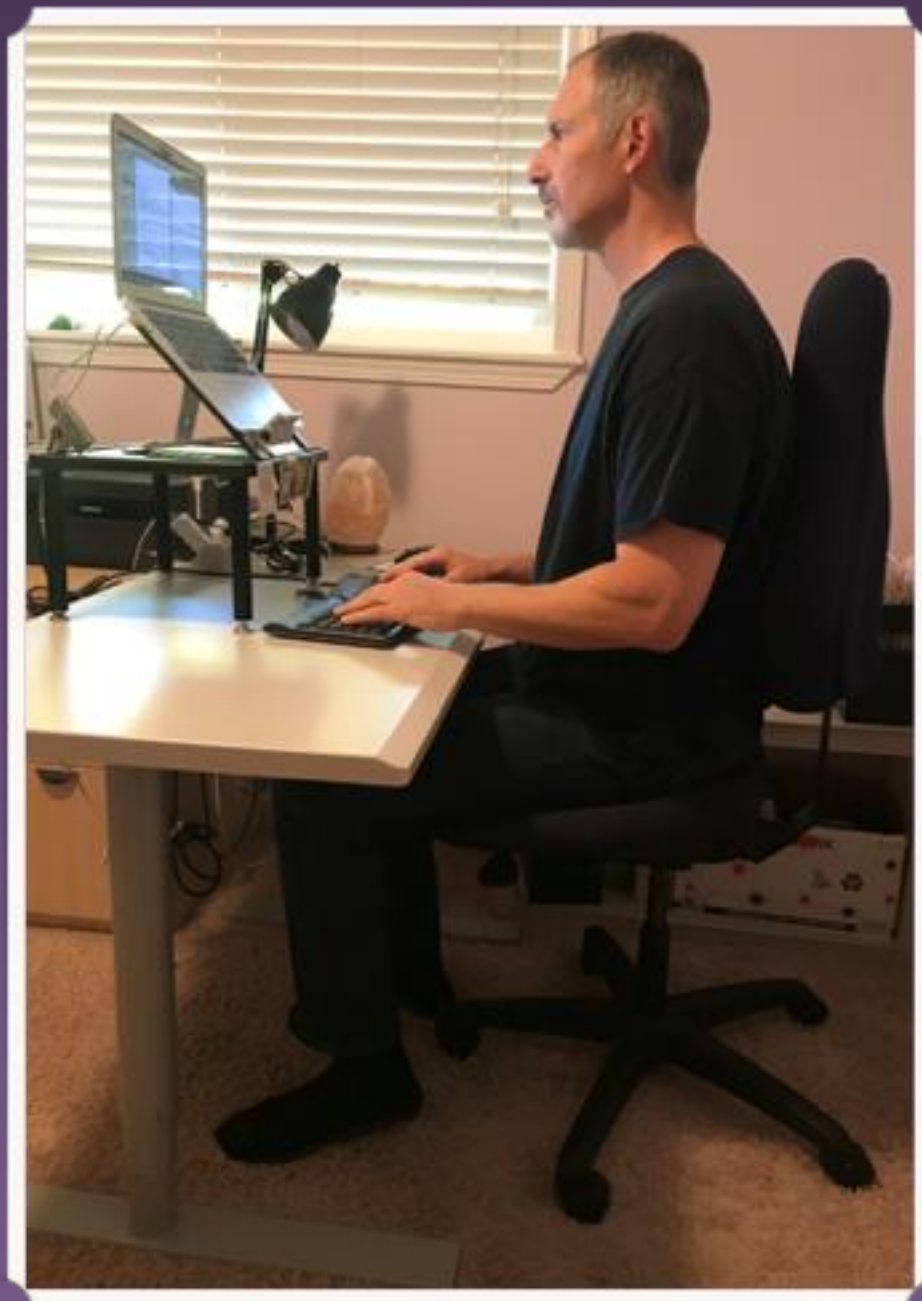
MOUSING



MONITOR HEIGHT AND DISTANCE



MONITOR HEIGHT AND DISTANCE



Time

- Sit for 30 minutes
- Take a 1-2 minute break
- Do this every 30 minutes
- 8 hour day = 16 one minute breaks

Virtual Ergo's Techniques

1. Use photos and phone
2. Use video conference

Virtual Ergo's Questioner

- Develop a questioner with what you need to know to complete the evaluation
 - Discomfort Survey
 - What features does your chair have?
 - What equipment are you currently using?
 - Location of where you are working?

Virtual Ergo's

- Send employee a list of what they need to have handy for the evaluation:
 - Tape measure with locking mechanism
 - A few books
 - Cushions/towels

Virtual Ergo's

Need 3 photos of different angles:

1. Side head to toe
2. Overview of hands on keyboard
3. Rear photo including chair



Virtual Ergo's

- Video
 - Make sure the person being evaluated can see your head to toe example.
 - You need to demonstrate how to take measurements
 - You need to demonstrate how to work in neutral to them
 - Instruct them on how to modify their work area

Questions ?

Available for Train
the Trainer Classes

YouTube: ErgoArts

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