

# New Ergonomic Trends in Office Ergonomics

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# A little about me

- Ergonomist with 25 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

# Reducing MSD's



Goals Remain  
the Same

- Decrease injuries
- Reduce Risks
- Hazard Identification
- Reduce costs

# Prevention

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

# Medical vs Industry Cost (per individual)

Surgery, medicines, splints and therapy:

Payments while off work:

Replacement staff or replace worker:

## Cost of BEST Ergonomic Modifications

(this number includes: sit/stand adjustable desk, good ergonomic chair, duel monitor arms, ergo keyboard and mouse)

Usually LESS!

A resource: Washington\_State\_Ergonomics\_Cost\_Benefit\_Calculator\_2016\_version  
<https://www.pshfes.org/cost-calculator>

# 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

# 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!**

# NEUTRAL POSTURE

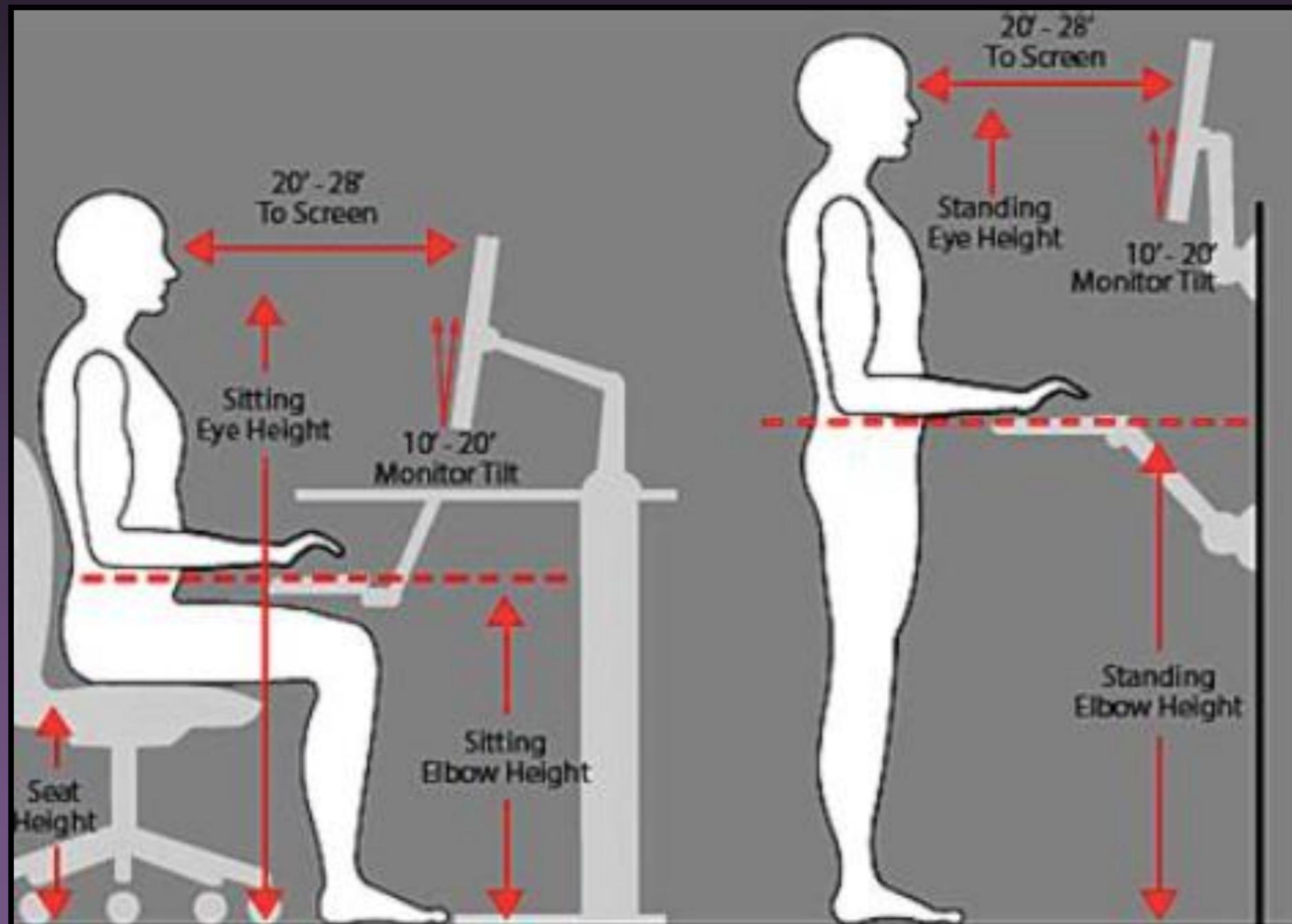


- Sit on ‘sitz’ bones with good alignment
- Line up your ear, shoulder, elbow and hip
- Eyes should be 1-2” from the top of the monitor
- Bend your elbow so forearm is parallel to ground while maintaining your natural hand and wrist position
- Hips should be higher than knees

Red area are the “sitz” bones.



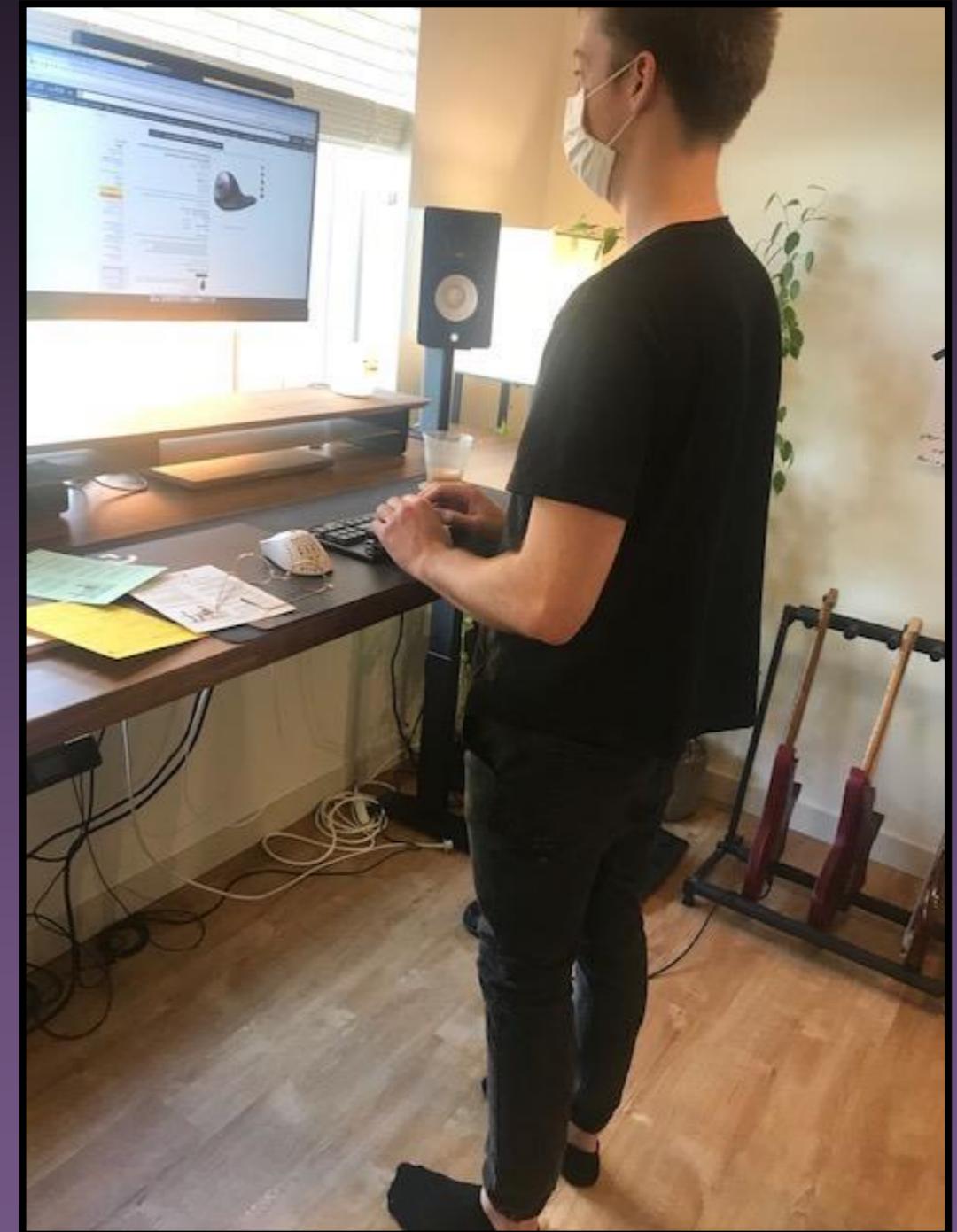
# SITTING/STANDING

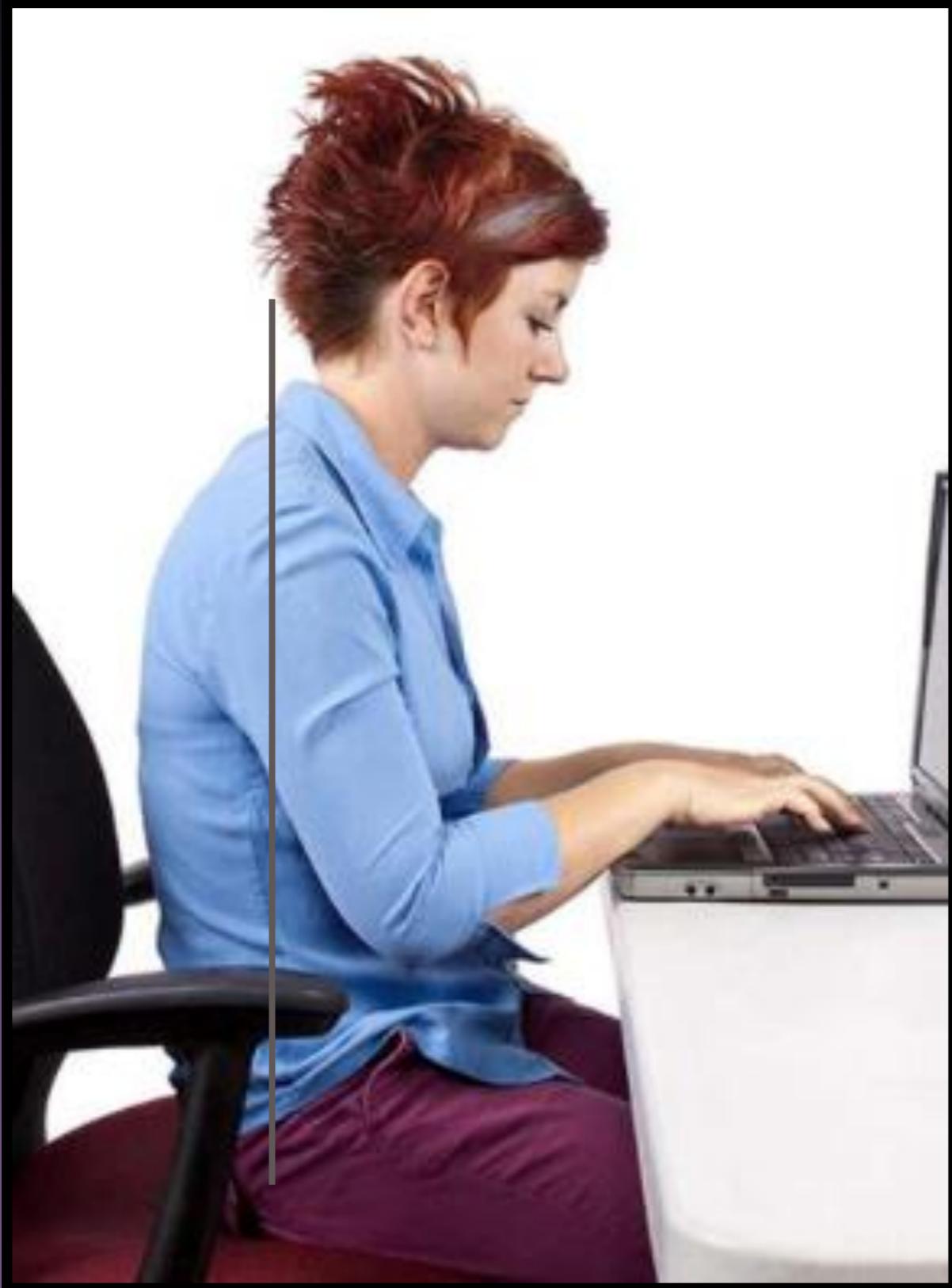




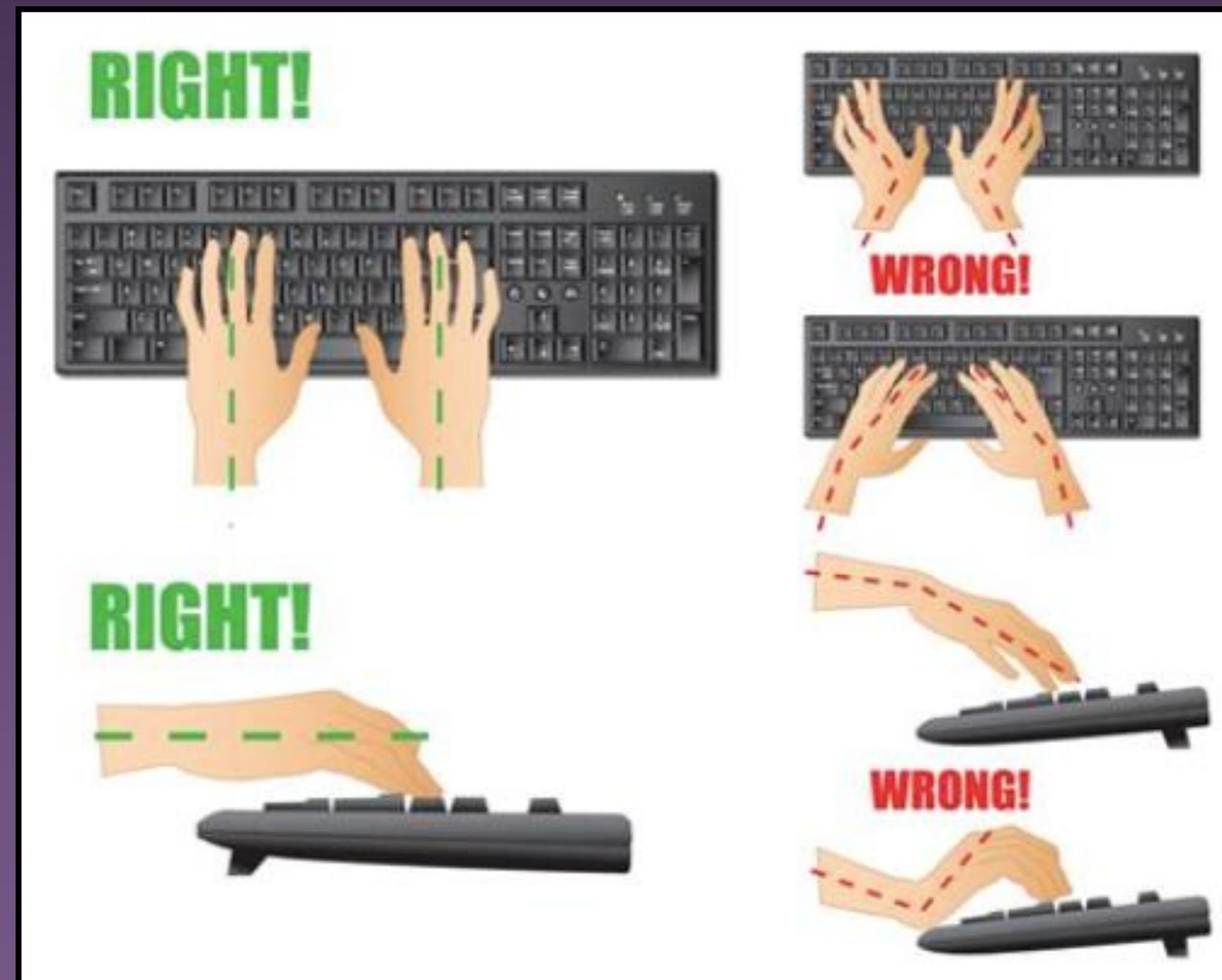
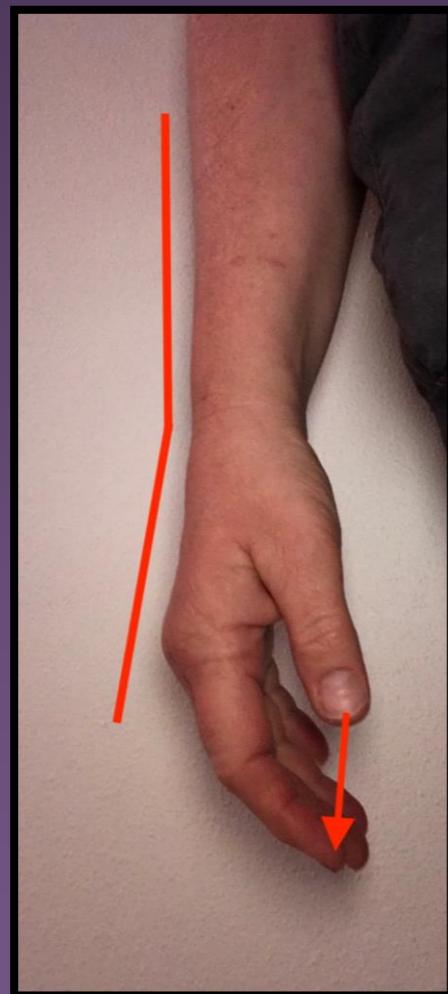
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# Standing

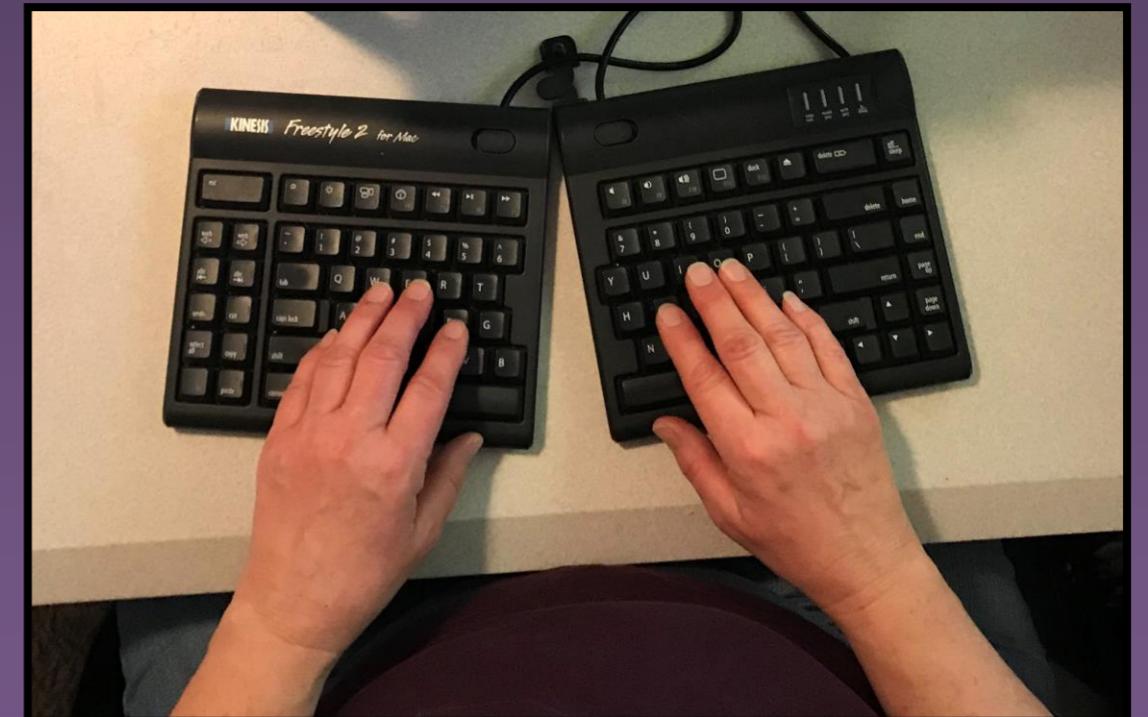
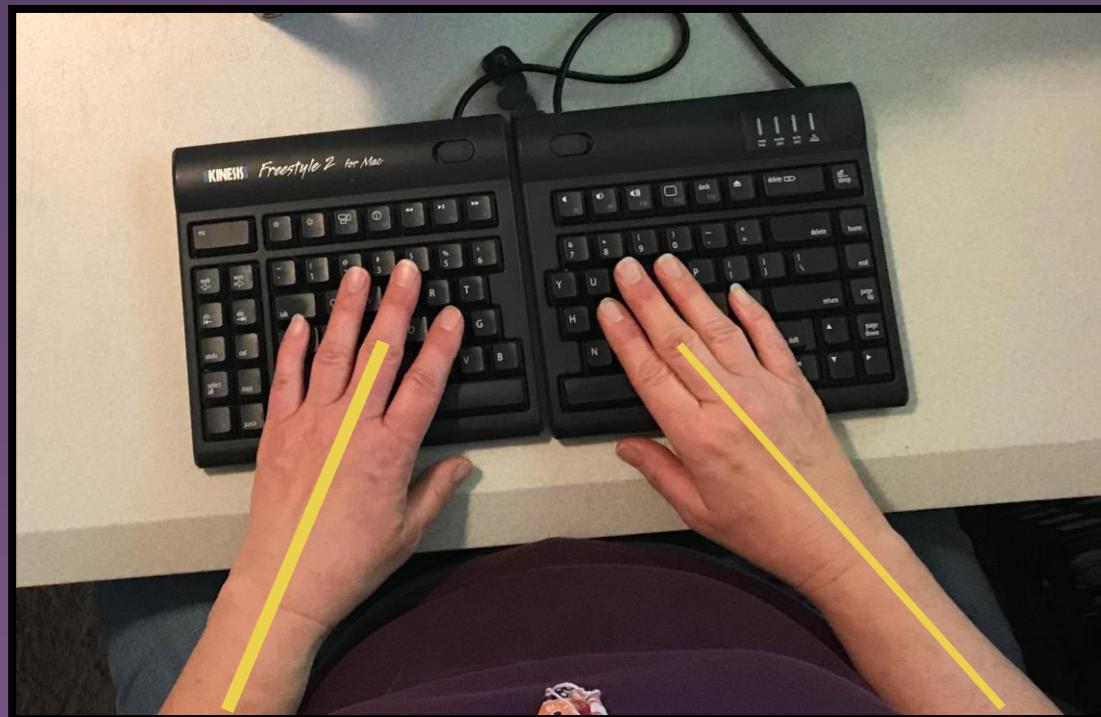
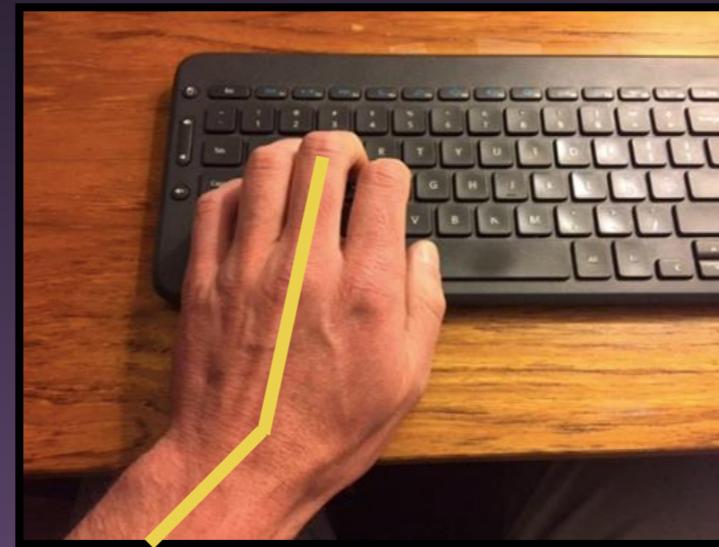




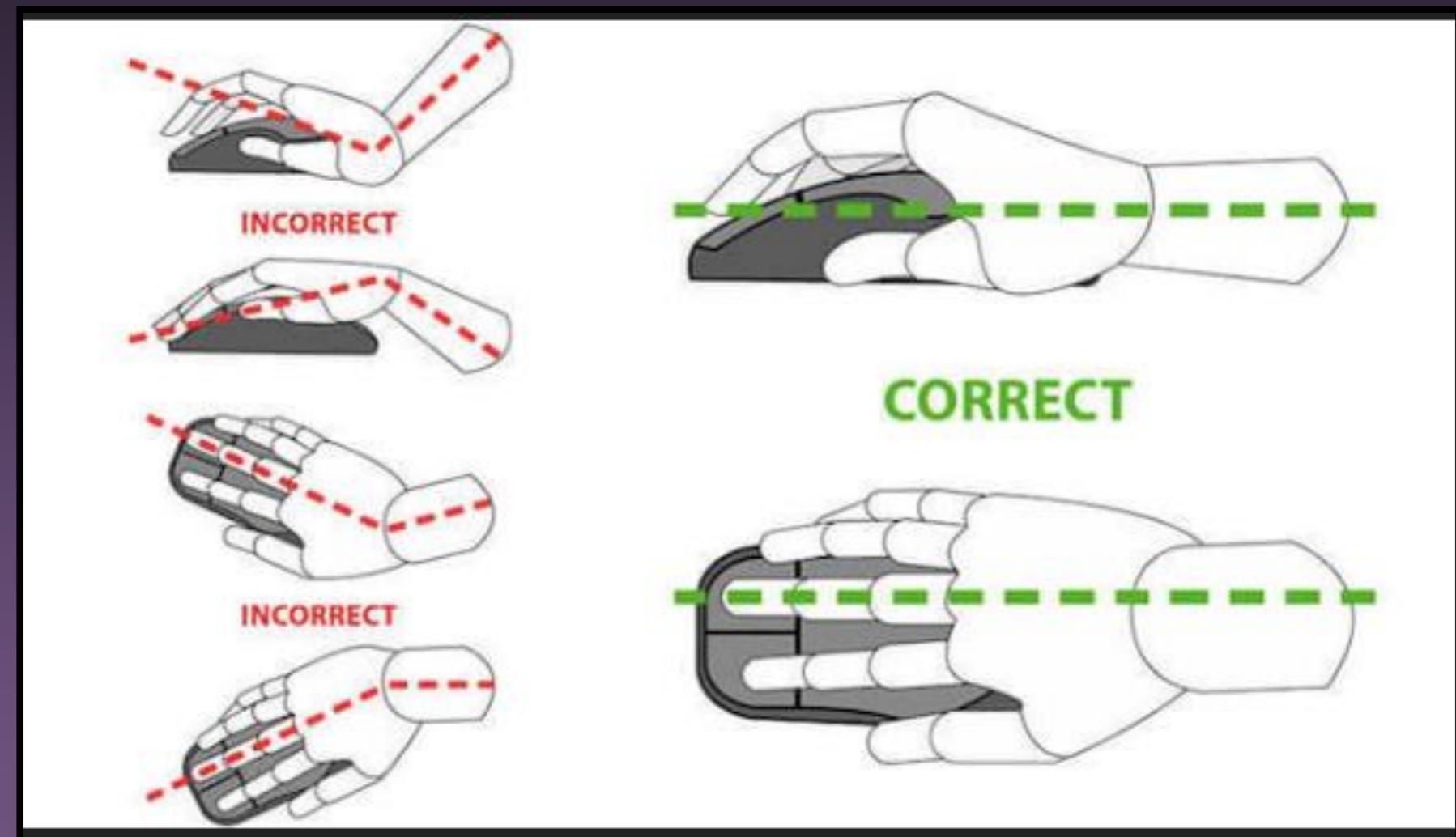
# KEYING



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# Mousing



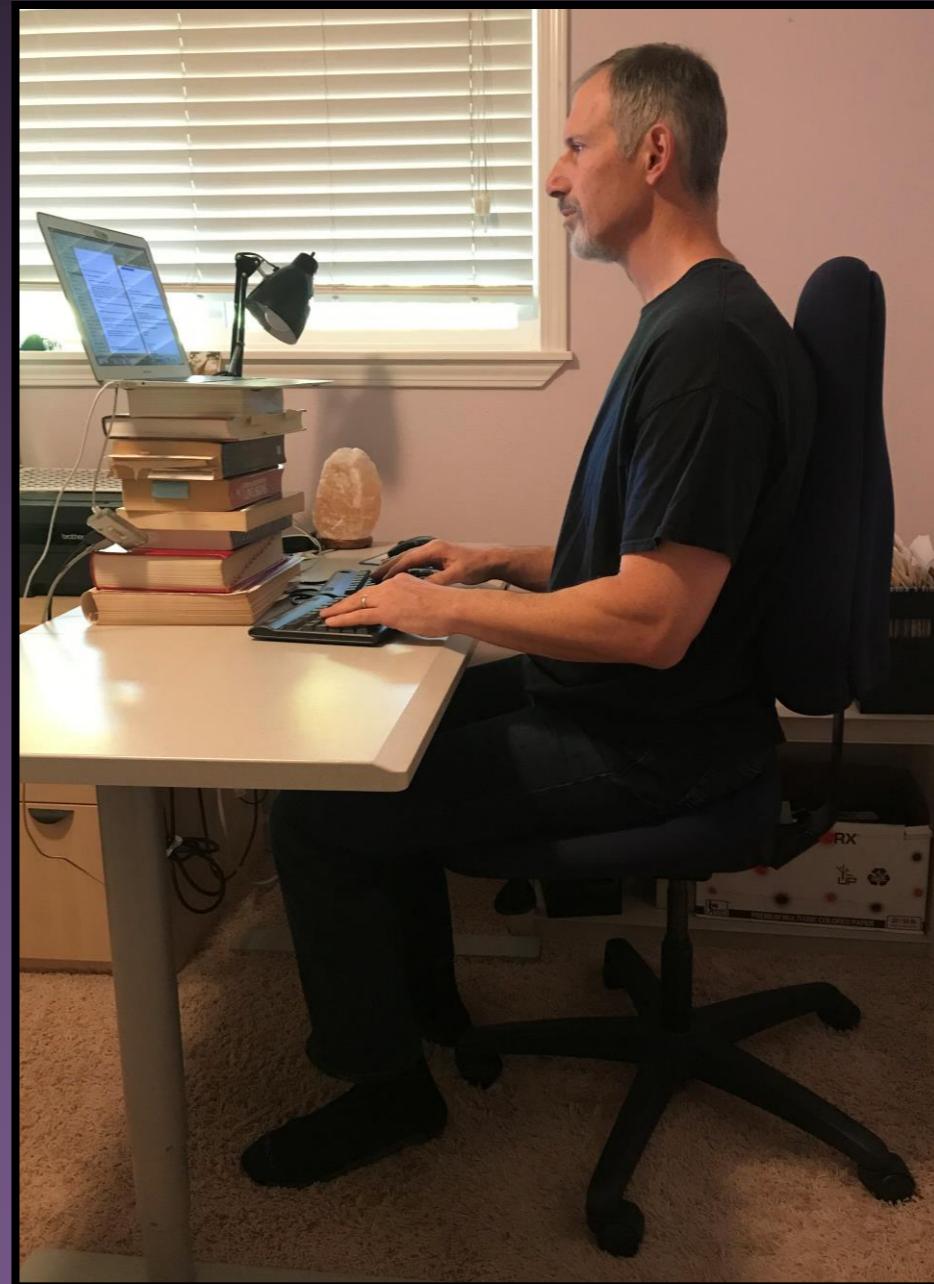
# MOUSING



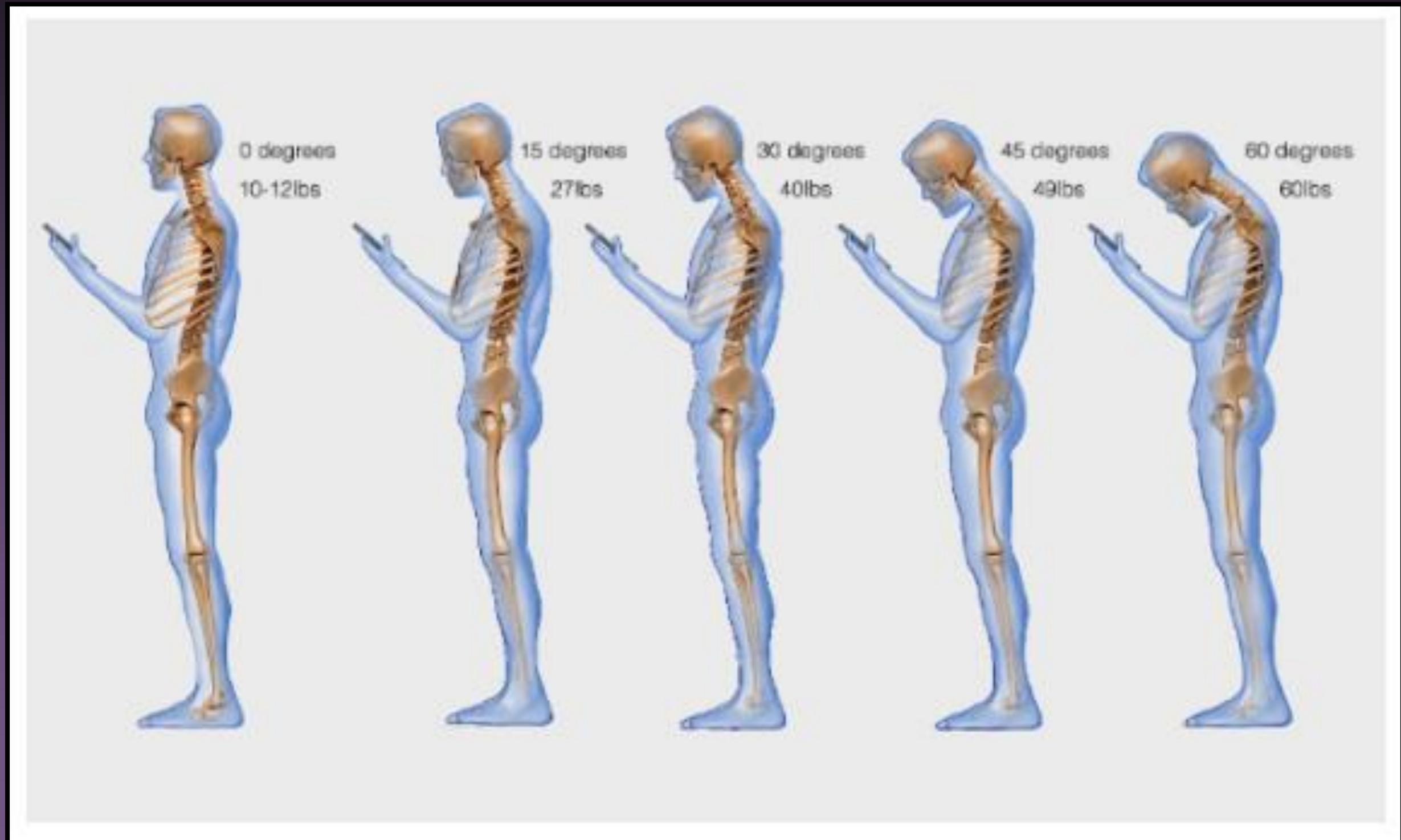
# MONITOR HEIGHT AND DISTANCE



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# Head and Neck Position



# Mobile Devices

- Additional risks have been introduced to the **neck, thumbs and hands**
  - Conference rooms and meeting spaces
  - Unsigned work spaces
  - Cafeterias
  - Collaborative work lounges
  - Planes, trains and shuttle buses
- Activities include access to email, calendar and internet from all the devices used
- Personal and work tasks as well as social media are more interspersed through the day
- Home
- Hotels
- Airports
- Cars

# Remote Working

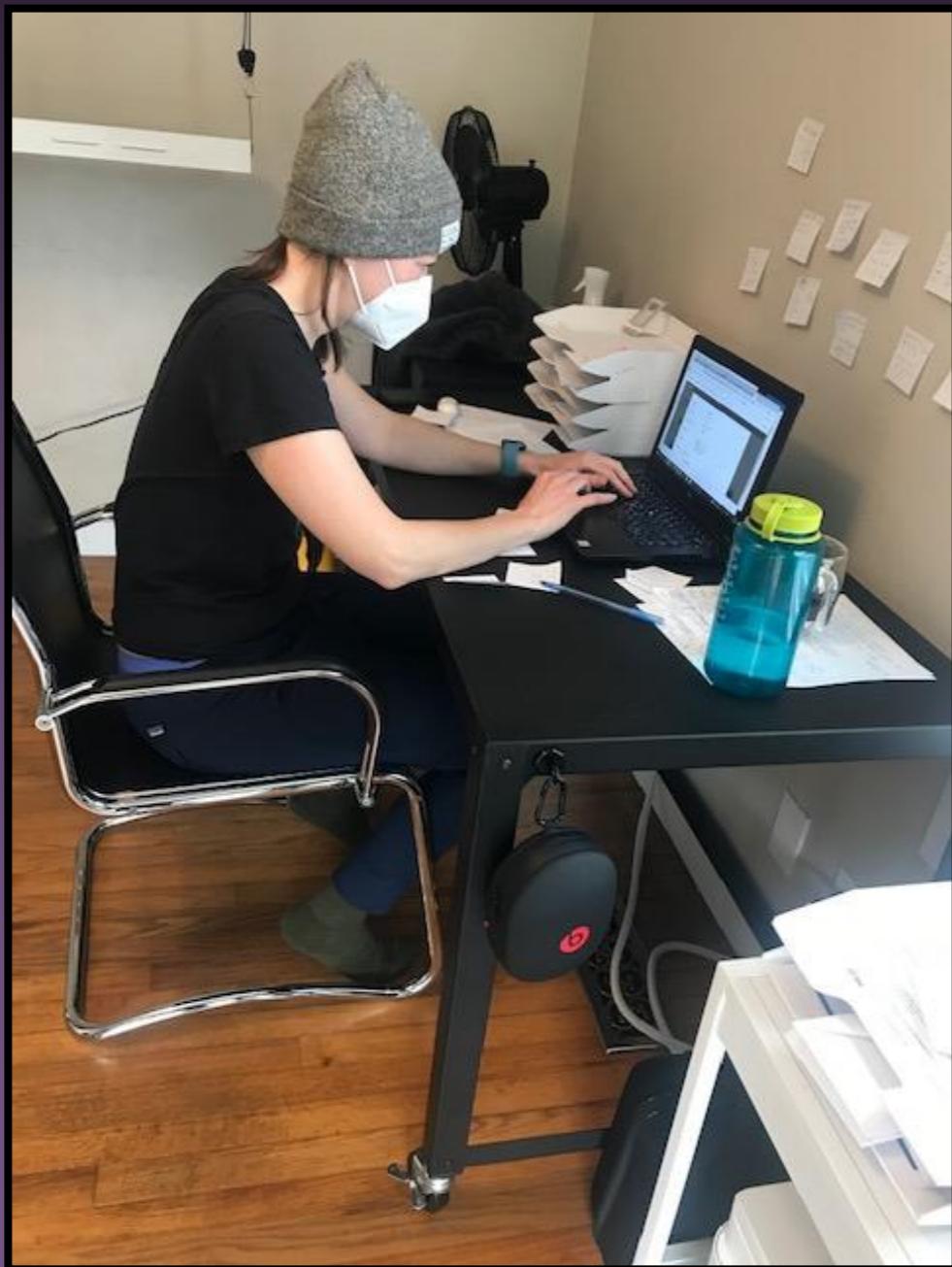
According to the Pew Research Center, around 22 million employed adults (aged 18 and over) in the U.S. work from home all the time, equal to roughly 14% of all employed adults.<sup>4</sup> (2024)

They report less stress than hybrid and in person employees

# At home Ergo Equipment

- What are you providing your at home workers?

# Working From Home



# Hybrid Work

- What is your company doing for Hybrid Work?
  - Do you offer a stipend for home office?
  - Do you give any guidelines on - chair?, desk?, peripherals?
  - Do they have a dedicated desk that suits their neutral position?
  - Do they have an adjustable chair to suit their neutral position?
  - Do they have a docking station with external monitor set up in their home?
  - These are essential to physical well being while working from home.
- Are you moving to shared cubes?
  - Will your company invest in training your employees to use this equipment and the importance of **EVERY** time they come into work to setting up their workstation for them to work in neutral for their specific physique?

# Hybrid Work Drives Flexible Ergonomic Solutions

- Demand for flexible, portable and adaptable ergonomic equipment



# Wellbeing-Integrated Workstations



# Ergonomic Wearables

- Features:
  - Posture monitoring
  - Vibration reminders to move
- Fostering a proactive approach to well being



# AI - Is it Safe?

- AI Proficiency Survey found that the vast majority of organizations aren't ready to deploy AI.
- Most of the workforce is untrained and unprepared for an AI-augmented world - and it's making them anxious.
- <https://www.sectionschool.com/ai/the-ai-proficiency-report>

# Wherever Employee Works

- They need to be trained to use what equipment is provided to them using neutral posture principles
- Getting the equipment is maybe 1/2 the issue - the other important 1/2 is to train employees.

# Ergo Evaluations

- Providing in person ergonomic evaluations
- Using an ergonomic software/system to have employees learn about office ergonomics with on-line training
- Providing virtual ergonomic evaluations for those working from home

# Ergonomic Softwares/Systems

1. Cardinus risk management
2. Ergo IQ fit
3. Cority OES
4. Velocity EHS
5. Virtue Health
6. Wellnomics
7. Tumeke
8. Ergo-Case Tracker

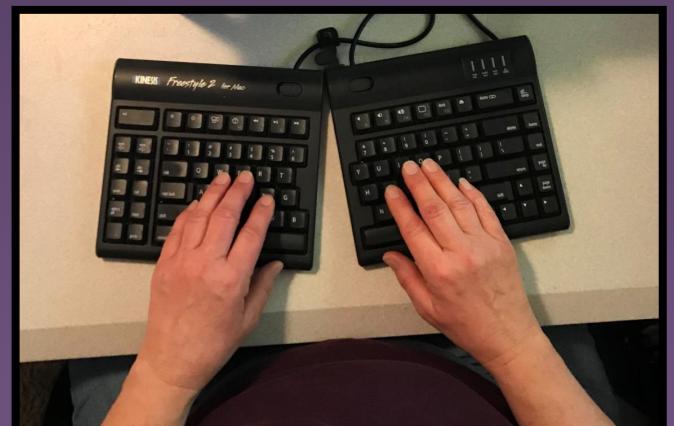
# Virtual Ergo's

Photos:

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

# Lighting

- Important to help prevent eye strain
- Mitigate glare of overhead lighting with task lights or indirect light sources

# Breaks



<https://ergo.human.cornell.edu/CUESitStandPrograms.html>

# Breaks

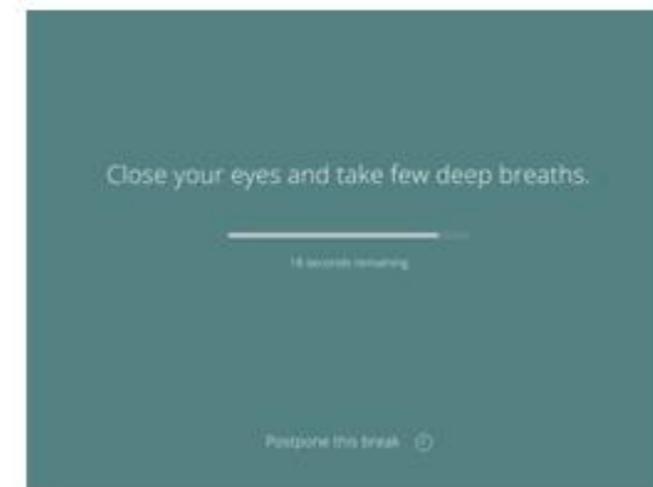
For a 7.5 hr day:

- 16 sit-to-stand transitions
- 2 hours of total standing time
- 0.5 hours of movement
- 5 hours of total sitting time

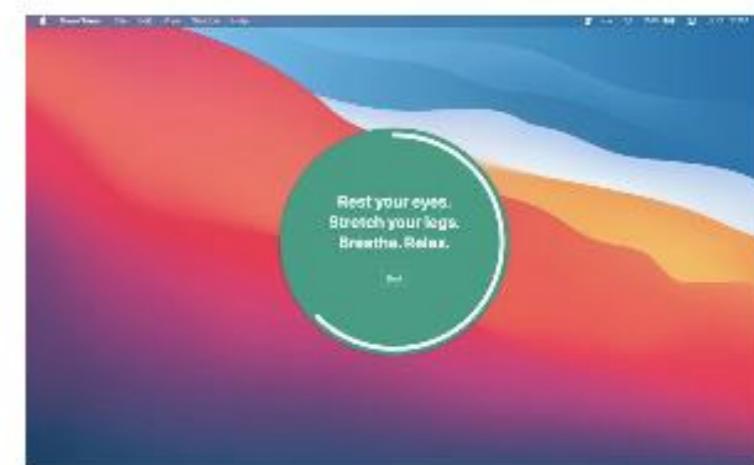
# Break Software



*PostureMinder*



*Stretchly*



*Break Timer*



*Smart Watch*



*Stand Up!*

Break Taker: <https://breaktaker.en.softonic.com/?ex=RAMP-2639.1>

# Increase engagement with IT

- In choosing mobile devices and the accessories that come with the device when purchased
- Alignment will reduce ergonomic risk while saving time and money for the end users and the company as a whole
- Increasing knowledge of software efficiencies and skill will reduce time wasted, improve productivity and reduce exposure to risk of discomfort or injury

# Management Commitment

- Educate
- Communicate
- Develop and write a plan
- Get a budget
- Demonstrate success

# Ergonomics is Good Economics

- Companies showing in range of 50% decrease in W/C costs
- 15-40% increase in productivity
- BLS shows **decrease** in MSD's coincides to increase in ergo programs

# Comprehensive Ergonomic Program

- Proactive
- All areas/departments
- Interfaces with Safety Program
- Self responsibility
- Objective date
- Quick action

# Employee Responsibility

- It is the responsibility of the employee to work in a safe manner
- Sitting posture
- Standing posture
- Working postures
- Safe work practices
- Using ergonomic equipment as it was designed

# Questions

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