

June 2, 2016

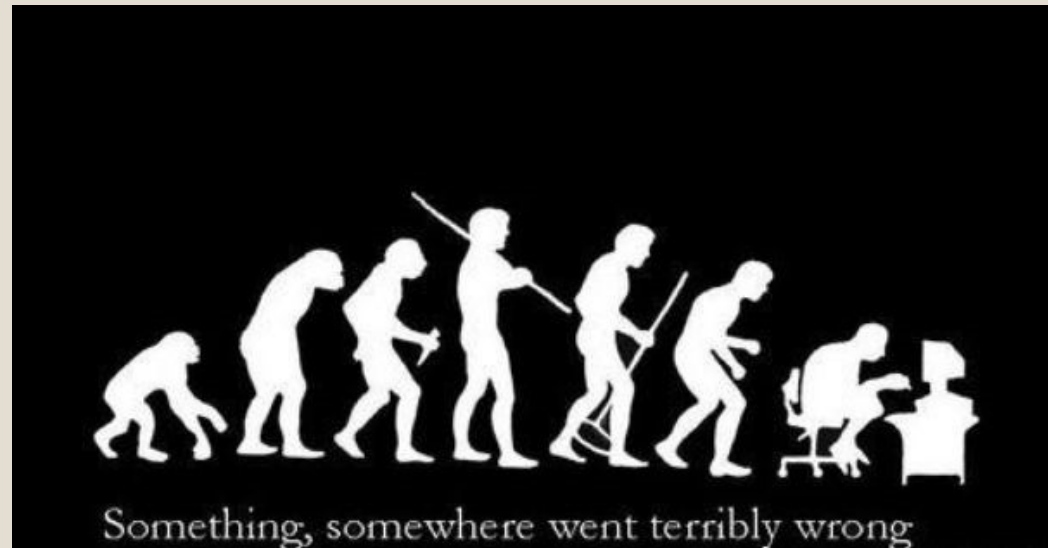
CHANGE YOUR WORKSTATION - ERGONOMICS, STANDUP DESKS AND MORE

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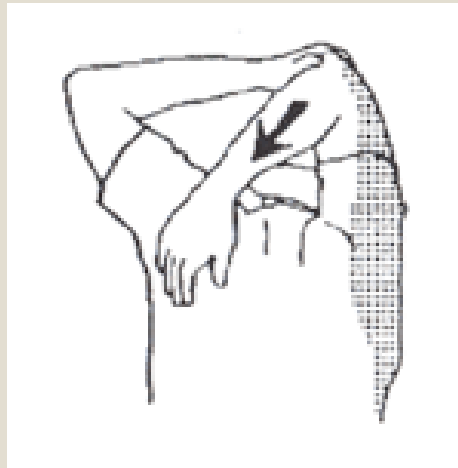
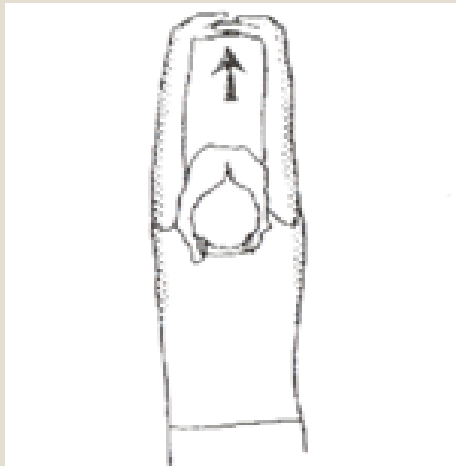
Agenda

- History
- Problems
- Solutions
- Resources



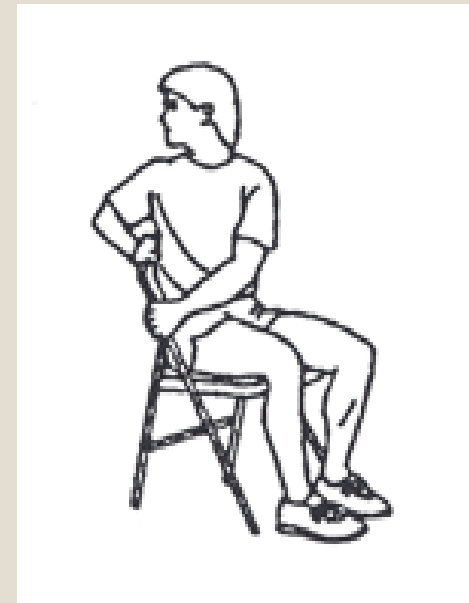
But First, Let's Stretch!

- Here are some stretches you can do in the morning and during the day



But First, Let's Stretch!

- You can do these while sitting



History

- Typewriter ergonomics?
- History of the keyboard
- Then vs. now



History

- When did problems start?
- It takes a while for problems to be studied and solved!



History

- Early computers
- Early problems
- Early interventions



Solutions – Caveat Ergo

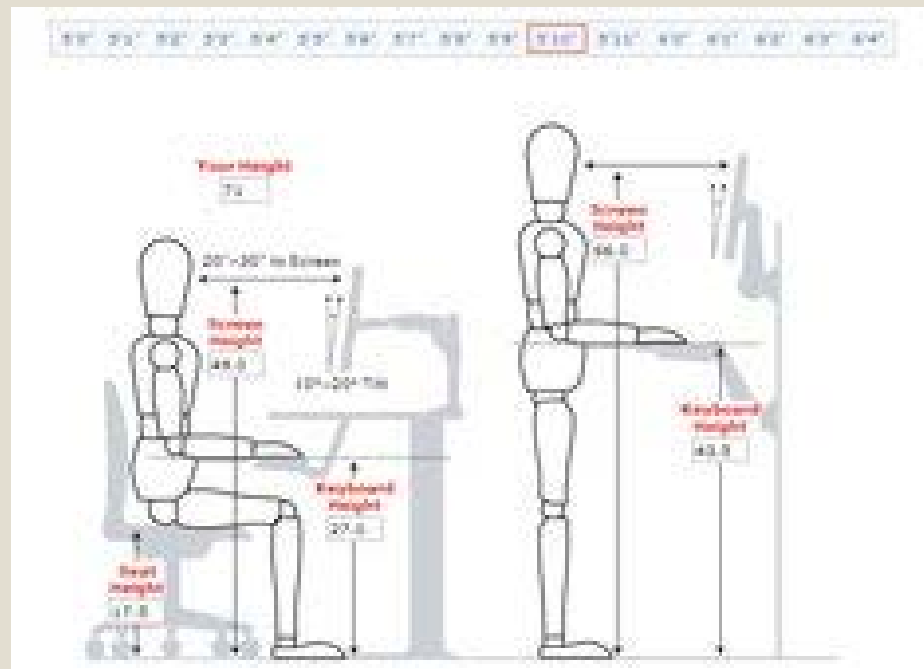
It's important to look for all possible causes of problems, including:

- Hobbies outside of work
- Medical conditions (diabetes, pregnancy)
- Medications
- Second/Third jobs
- Age-related disorders



Solutions

- Design ergonomics into any job
- Pre-planning is best
- THERE IS NO “ONE SIZE FITS ALL”



Solutions – Five Basic Principles

- Environment affects behavior
- Movement is critical
- Minimize extreme postures
- Avoid contact stress
- Take breaks!



Solutions

- Standing all day is not recommended!
- Sitting all day is not recommended!
- Work stations must be properly adjusted or they may cause harm!



Arranging Your Workstation



Which are You?

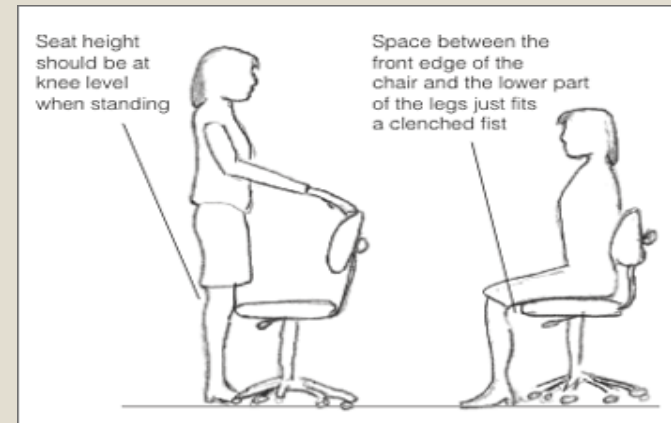
Arranging Your Workstation



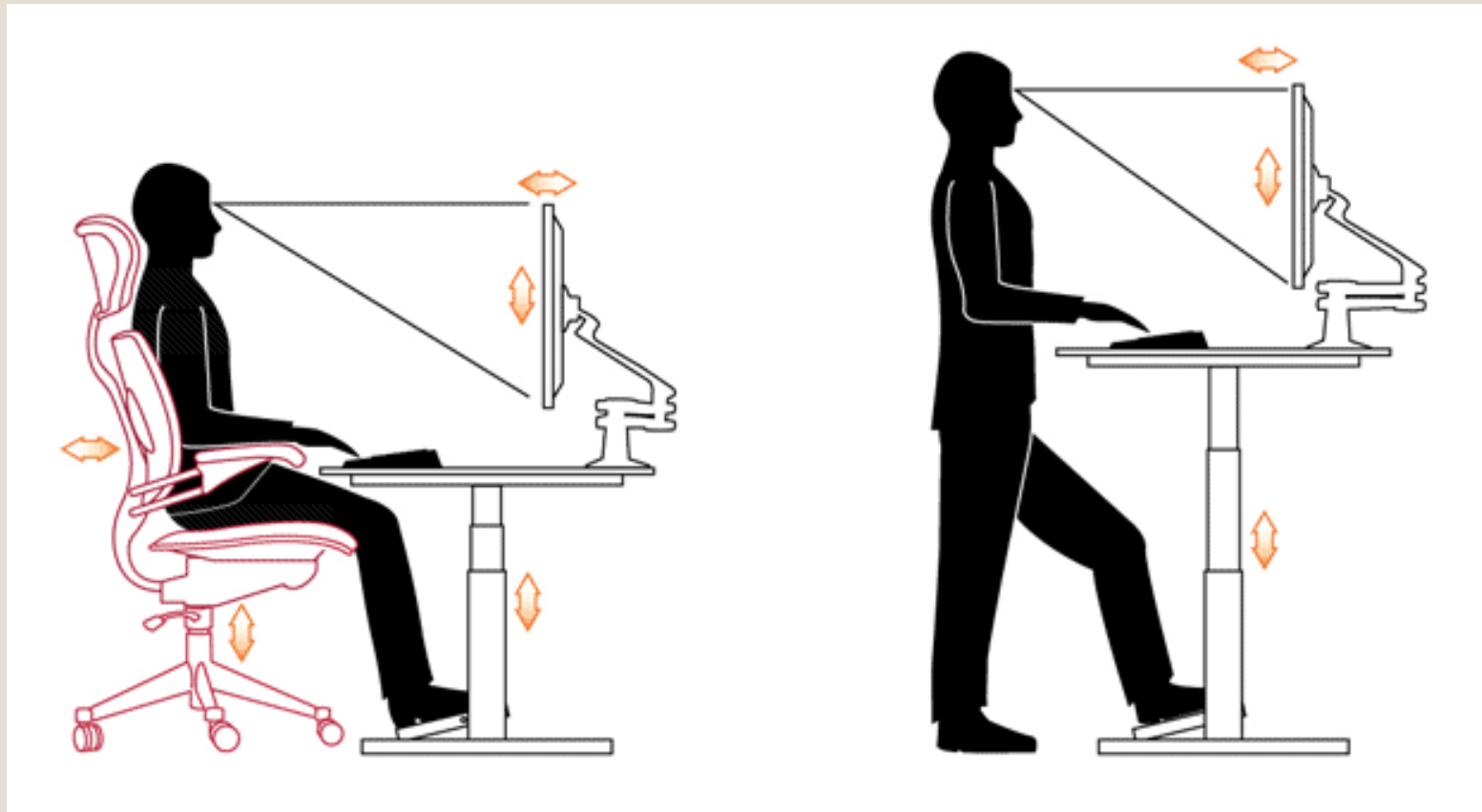
Arranging Your Workstation

- Chairs:

- While standing, seat height @ knee level
- Feet flat on floor (foot board)
- Room between chair edge and knees
- Backrest supports lower back curve
- Shoulders upright, not hunched or low
- Arms rest at sides, 90° angle at elbows

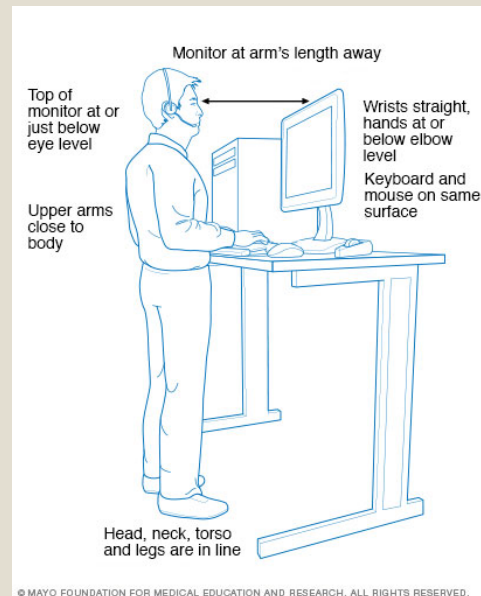
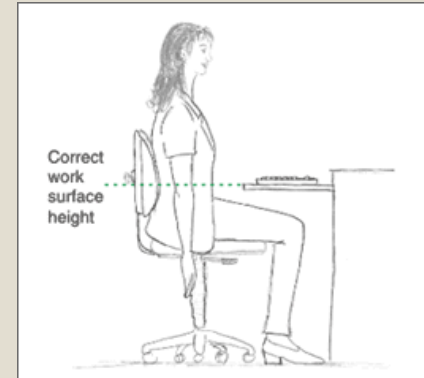


Arranging Your Workstation

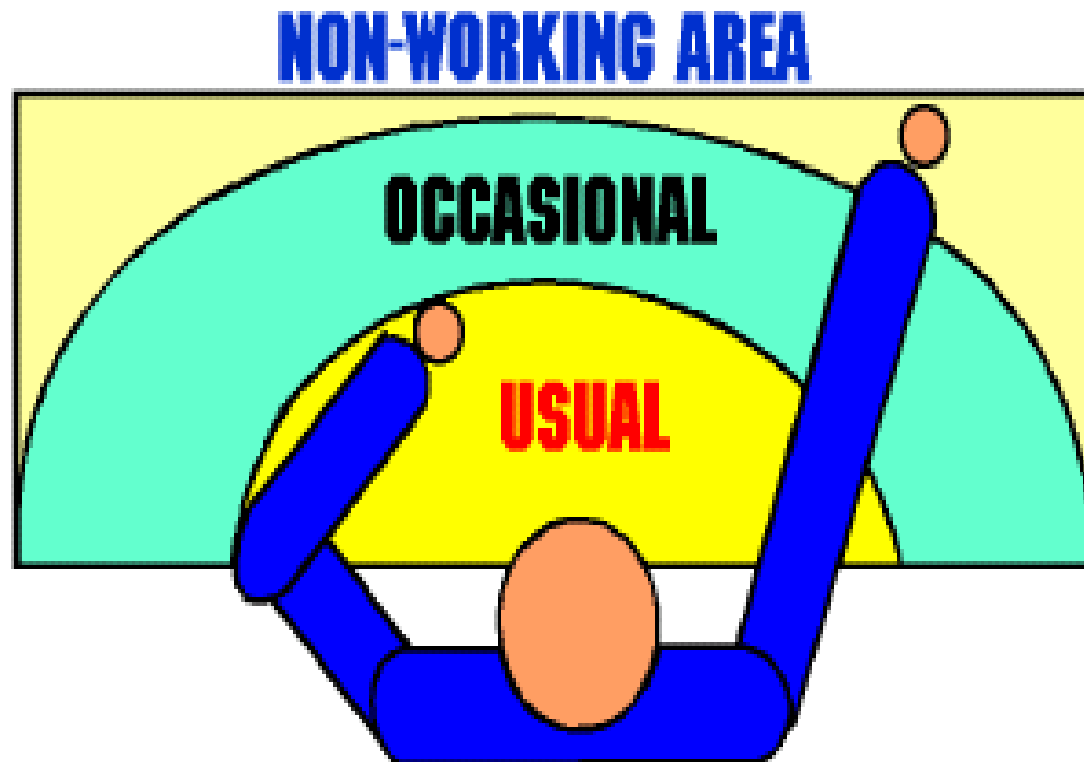


Arranging Your Workstation

- Work Surface
 - Elbow height
 - Adequate leg room
 - Adjustable keyboard trays
- Store materials on work surface (don't bend)

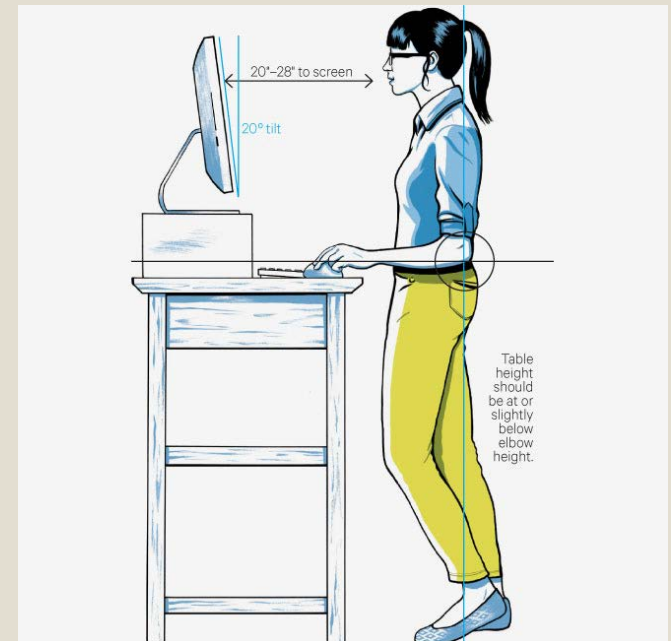


Arrange Your Stuff



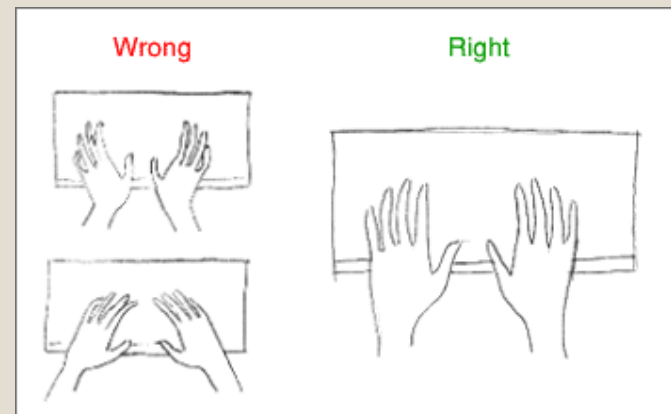
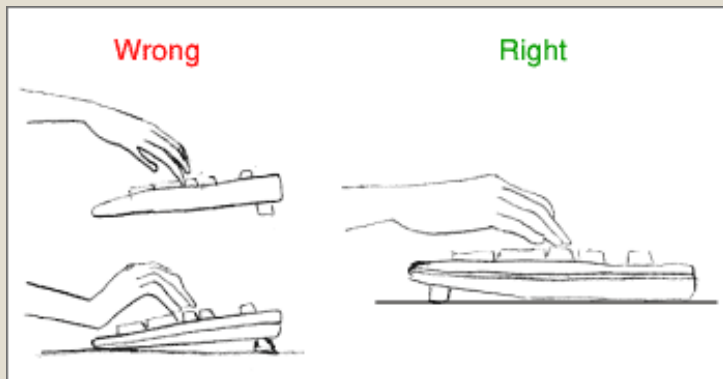
Arranging Your Workstation

- Monitor(s)
 - Directly in front of you
 - Approximately arm's length away
 - No squinting required
 - Top of monitor(s) even with eyebrows



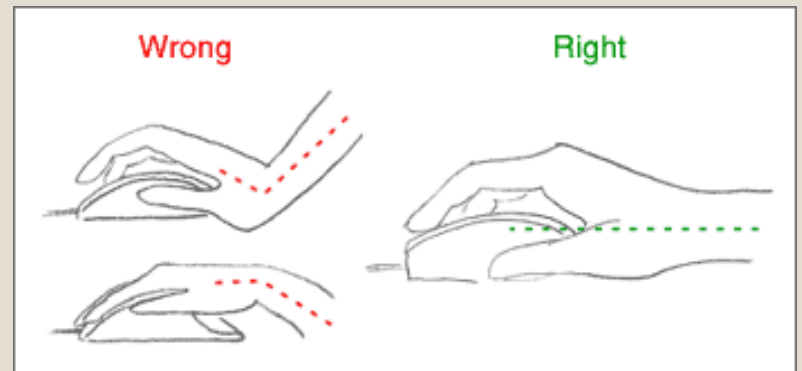
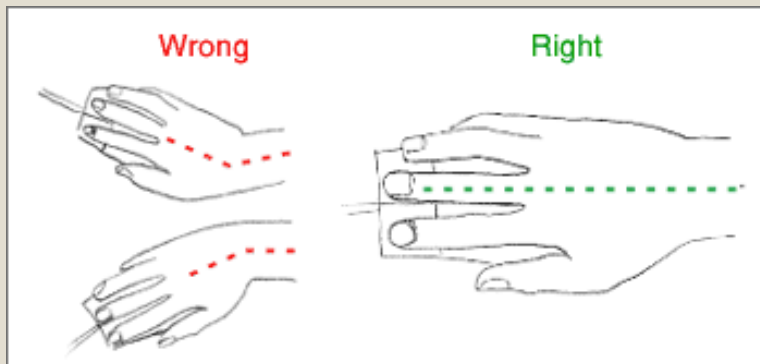
Arranging Your Workstation

- Keyboard
 - Directly in front of you
 - Do not use keyboard “feet”
 - Neutral, straight wrists
 - Don’t rest on wrist rests



Arranging Your Workstation

- Mousing
 - Hand in straight line with forearm
 - Do not bend wrist
 - Mouse should same height as and directly adjacent to keyboard



Arranging Your Workstation

- Accessories
 - Headset or shoulder rest
 - Document holder – adjacent to monitor
 - Foot rest
 - Monitor Arm
 - Mice, Keyboards



Arranging Your Workstation

- Advice
 - Turn whole body, don't twist
 - Breaks – 1 min./30 min. or 20/20/20



Laptop Use

- Same requirements
- Docking Stations
- Use laptop as monitor (stand)
- Aux. keyboard and mouse
- Use ironing board as stand!



Lighting the Way

- Different tasks require different levels of light
- “Old eyes” need more light
- One source of overhead lights
- Task lighting avoids glare, provides additional light when/where needed



Remember that...

- The best solutions $\neq$ the most expensive
- Gadgets, bells & whistles can't substitute for training and good practices
- The best way to prevent problems is to design them out at the beginning



Solutions – good or bad?



Solutions – good or bad?



Solutions – good or bad?

- There are a number of stand/sit solutions on the market
- Which one is the best?
- Which one is the best **for you**?
- Considerations:
 - Price
 - Height
 - Convenience (crank vs. electric)
 - Fit



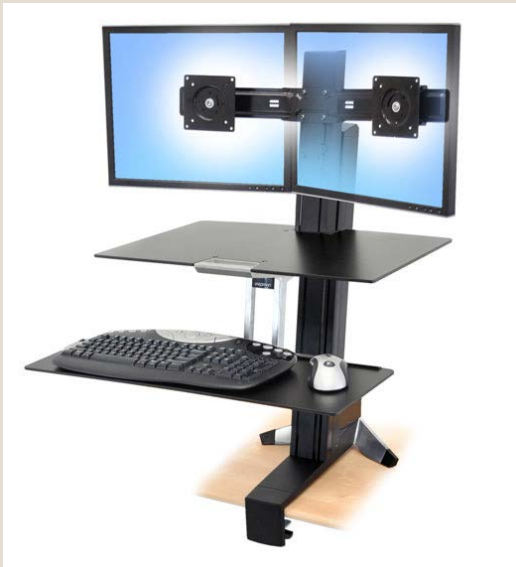
Types of Stand/Sit Work Stations

- Height-adjustable table
 - + = adjustability
 - - = cost



Types of Stand/Sit Work Stations

- Top-of-the-desk models
 - + = Adjustability, Price
 - - = Fit (standing **and** sitting), desk space

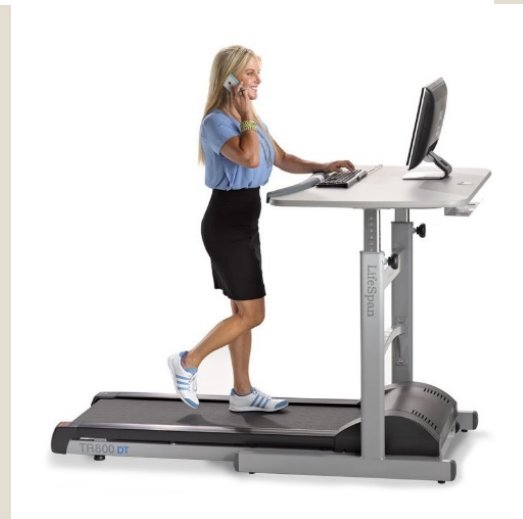


Types of Stand/Sit Work Stations



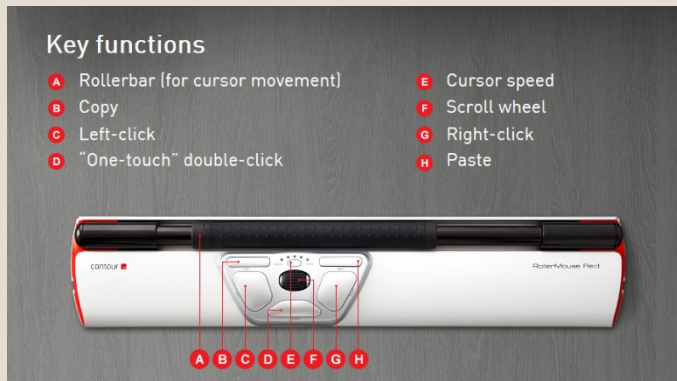
Types of Stand/Sit Work Stations

- Other options

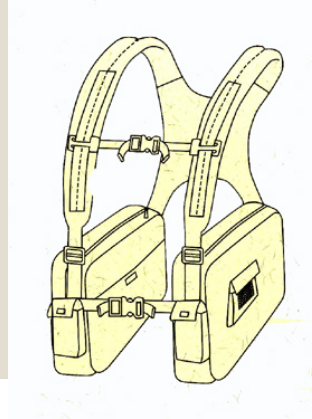


Assistive Devices

- These can be helpful, but must be combined with proper body positioning, etc.



Assistive Devices



Resources

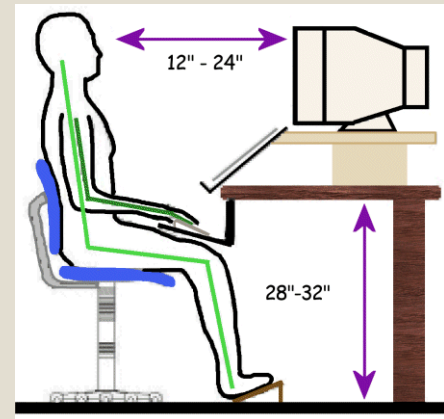
- Your local EH&S contacts
- Recommendations
 - www.osha.gov
 - www.nih.gov/od/ors/ds/ergonomics/lab1.html
 - www.cdc.gov/niosh/topics/ergonomics/
 - <http://www.seating-ergonomics.com/index.html>
 - “The Ergonomics Guide to Computer Workstations – AIHA publication
 - <http://www.makeuseof.com/tag/5-things-youre-wrong-standing-desk/>

Resources

- Other Universities
 - www.ergonomics.ucla.edu/
 - www.ergo.human.cornell.edu/
 - www.yale.edu/ergo/

Resources

- Vendors/Service Providers
 - www.humanscale.com
 - www.alimed.com
 - www.ergoboy.com
 - www.ergotron.com
 - www.govtconnection.com
 - www.askergoworks.com
- Articles



Questions?



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