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continued

Work from Wherever: Ergonomic Tips for A Safe & Healthy Workstation Set Up at Home

Sara Loesche, MS, OTR/L, CHT, CEAS

Thomas Jefferson University

July 21, 2020



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continued

- Presenter Disclosure: Financial: Sara Loesche has received an honorarium for presenting this course. Non-financial: Sara Loesche has no relevant non-financial relationships to disclose.
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continued

Learning Outcomes

After this course, participants will be able to:

- Identify potential risk areas of a workstation at home
- Identify components of a healthy work environment at home including defining neutral postures, equipment placement and design, and task modification
- Describe simple upper and lower body stretches to implement throughout the day to promote healthy behavior while working

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Work Hazards – Risky Jobs



Working from home can “pose some challenges, including physical, mental, and environmental issues that you may not have anticipated.”

(Espinoza, 2020, p. 1)

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Work Environments Are Changing



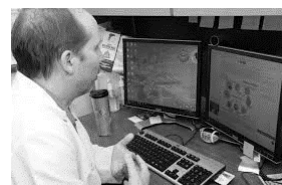
“With the COVID-19 pandemic, millions of workers suddenly find themselves doing their jobs from home”

(Espinoza, 2020, p. 1)

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Telehealth Services

- CDC issued a statement to “describe the landscape of telehealth services and provide consideration ... during and beyond the COVID-19 pandemic” (2020, para.1).
- Has become more complex than telephone calls
- Policies have changed to reduce barriers to providing telehealth access and services including in occupational therapy



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What does WFH look like?

From 2005-2017 there was a 159% increase in remote work in the U.S.

- You have to be prepared
- Figure out a work-life balance
- Set up a work station – or several
- Access technology/software
- Still need to be productive



Wu, 2020

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Employers WFH Response

- 67% of employers were allowing or mandating employees work from home who wouldn't normally do so
- Give the employee a laptop and send them home
- Equipment for videoconferencing?
- Do you need things from your on-site office?
- Work with what you have

Zeidner, 2020

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WFH Issues

- How do you 'unplug'?
- Lack of social environment
- Decrease collaboration/communication
- Home distractions
- Managing multiple roles
- Lack of reliable Wi-Fi
- Adjustable workstation?
- Worsening or new areas of discomfort



Zeidner, 2020

Q1 9

“Having a setup that works for you in your home office can make a huge difference in how you feel.”

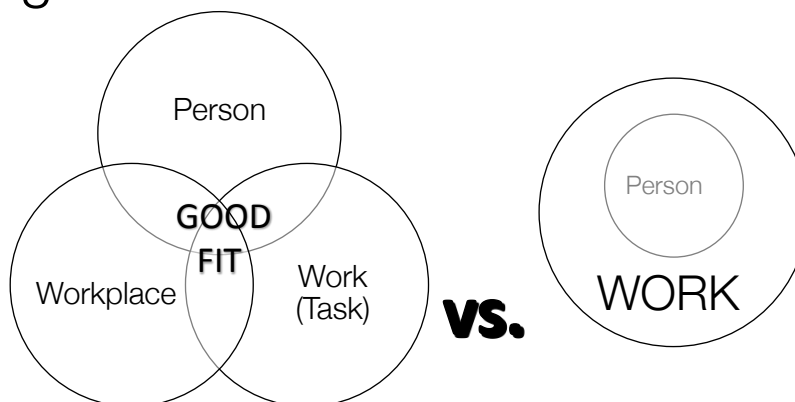
Haskin,
2018, p.8

Healthy Posture & Productive

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continued

Ergonomics

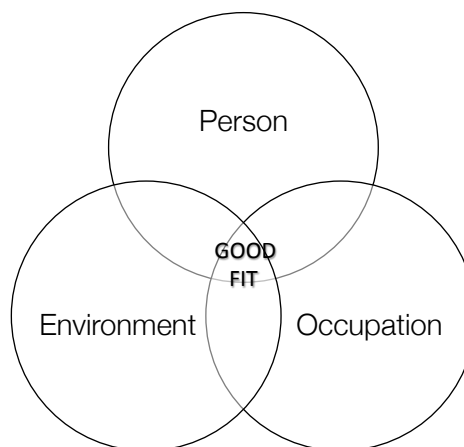


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Occupational Therapy

- Help people across the lifespan to do the meaningful every day activities that they want and need to do by looking at the balance of P, E, & O



AOTA, 2014

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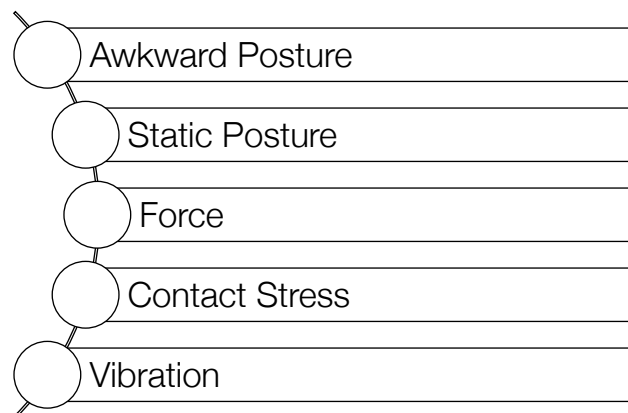
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Ergonomics, OT & WFH Example

Person	Environment	Occupations
<ul style="list-style-type: none"> • What's your posture? • UE position? • Stress • Visual strain 	<ul style="list-style-type: none"> • Desk/Chair • Monitor/Keyboard • Lighting • Noise & Distractions 	<ul style="list-style-type: none"> • Job demands • Sleep • Healthy diet • Multiple role strain

Q2 13

RISK FACTORS



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continued

Awkward and/or Static Posture

- Cradling phone b/t shoulder and ear
- Wrist ext. @ keyboard b/c of placement or keeping 'feet' of keyboard up
- Shoulders elevated or UE 'reaching' while keying/mousing
- Neck flexion/extension/rotation to view monitor
- Lack of lumbar support or excess thoracic curvature, posterior pelvic tilt
- Crossing legs, sitting on legs, or other poor LE position



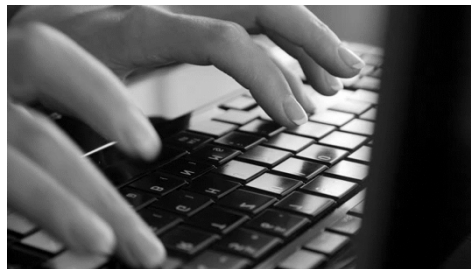
Q3

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continued

Forces

- Finger flexors when keying
- Push/pull chair to get up or move at workstation
- Pinch/pull binders
- Stapler

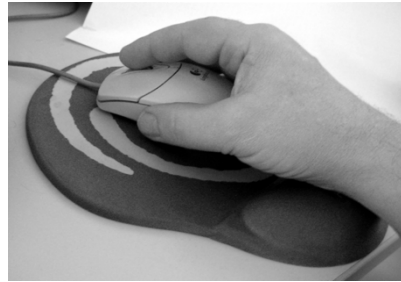


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continued

Contact Stress

- Mouse pad
- Keyboard
- Arm rests
- Chair @ back of knee



* As desk height increases, the risk of contact stress increases

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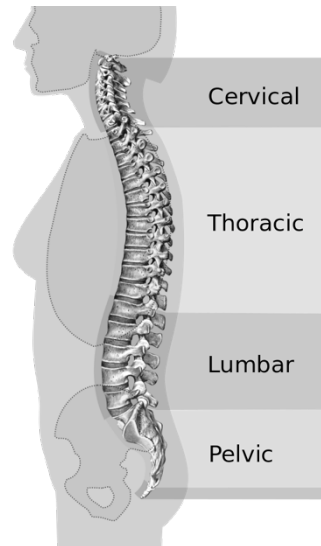
NEUTRAL POSTURES

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continued

What is NEUTRAL?

- Head straight, slight downward gaze
- Shoulders relaxed, slight protraction
- Elbows flexed (90-100°)
- Wrists neutral
- Lower body supported
 - Knee at hip level & not in contact with chair
 - Feet supported



Q4

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continued

THE BIG 3

- Chair
- Workstation
- Keyboard/Mouse
 - Monitor

Q5

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continued

Chair

Start here →



- Explore the features
 - Is it adjustable?
 - Arm rests? (if so, are they useful?)
 - Lumbar support?
- Create neutral posture
- LE Support
 - Do knees come in contact with the seat? Waterfall edge?
 - Need a footrest? You feet NEED contact.
- Add a cushion to increase height or support back

(AOTA, 2020)

Q6

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Workstation: Keyboard

- What surface are you using?
- Do you have enough room for your 'stuff'?
- Keyboard
 - Neutral wrist
 - Pull closer to avoid contact stress between and reduce tension in UEs



(AOTA, 2020)

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Workstation: Mouse

- Consider size of mouse and hand
- Try different types
- Mouse pads
- Wireless?
- Is jewelry getting in the way?



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Work Zones

PRIMARY

- Can reach with elbows bent at 90
- Constantly used items

SECONDARY

- Can reach with extended arms
- Frequently used items

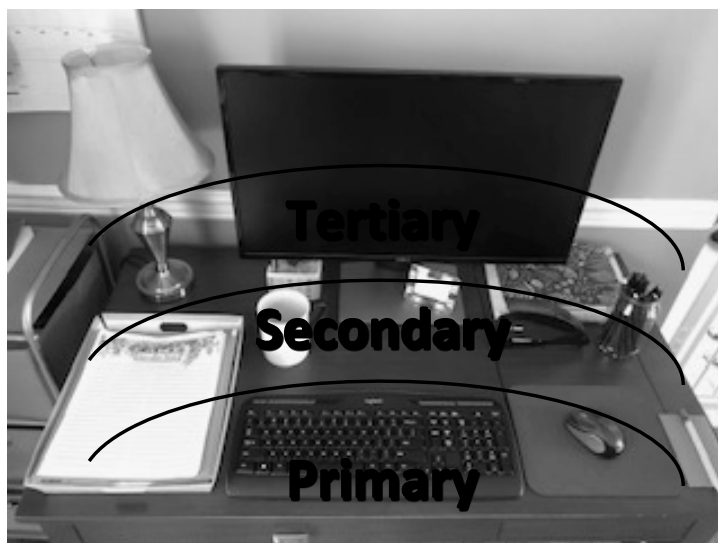
TERTIARY

- Must get up or bend forward to reach
- Rarely used items

(Working from Home, 2020)

Q7 24

Work Zones



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Monitor

- If using a laptop, consider a separate monitor
- Is your monitor adjustable?
 - Monitor risers
 - Low tech adaptation – prop with a book!
- Height: Eyebrow level
- Distance: 18-30" from eyes
- Dual monitors?



(AOTA, 2020)

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Laptop Tips

- FIXED
 - If you adjust based on screen, keyboard is off
 - If you adjust based on keyboard, screen is off
- External keyboard (?)
- Tilt screen (?)
- Wireless mouse – touch pad is tough
- Designed for short-term use
- Laptop stand

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Accessories

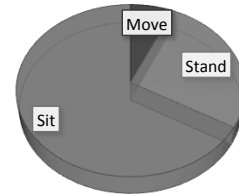
- Document holder
- Document stand
- Headset
 - No neck flexion OR elbow flexion to hold phone
 - Noise cancelling
 - Wireless (so you're not attached to your workstation)



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Should I Stand?

- Sit to stand:
 - 20' sit / 8' stand / 2' move*
 - Either each half hour or hour
- Standing
 - Find a height that works for you
 - Can still use a footstool to alternate having one foot up
 - Will reduce strain through low back
- Sit to stand converters available

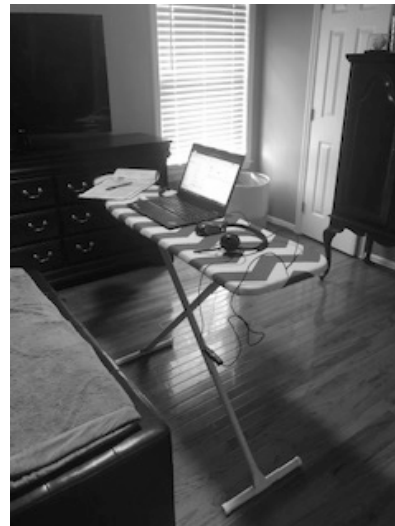


*Cornell University Ergo
<http://ergo.human.cornell.edu/CUESitStand.html>

Q8

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Create your
own
adjustable
workstation
at home.



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continued



Standing Example

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continued

OTHER CONSIDERATIONS

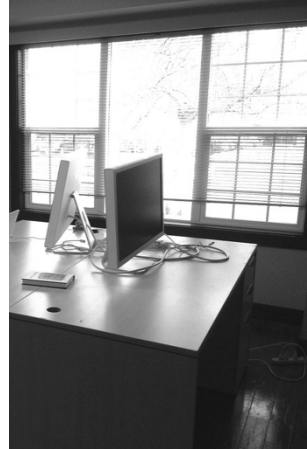
32

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continued

Lighting

- Sit at a 90° angle from a window to limit glare
- Consider working in lower light levels to decrease eye strain or adjust brightness on monitor
- Do not sit directly under a light source



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continued

Vision 20/20/20 RULE*

- Digital eye strain – you blink less when looking at a screen
- Clean your screen
- Get an annual eye exam to make sure you are wearing the right corrective lenses or if they are needed
- Blue light? Stimulates the nervous system but there's no evidence to say it damages the eyes

*American Optometric Association

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continued

continued

Identify the Issues

- Feet not touching the floor
- Monitor too low
- Lack of lumbar support
- Reaching for keyboard
- Contact stress



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continued

Small Fixes

- Add footstool
- Raise monitor (needs more!)
- Lumbar support
- Pull keyboard in/push chair in
- Much better!



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continued

continued

Identify the Issues

- Feet not touching the ground
- Shoulder hike
- Reach for keyboard
- Contact stress
- Lack of back support



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continued

Small Fixes

- Foot stool
- Raise height of seat
- Still some issues
 - Looking down at monitor
 - Reaching for keyboard
 - Lack of lumbar support



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continued

TAKE A BREAK



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Movement Breaks

- Decrease strain on lower back and other areas
- Bodies are meant to move
 - Move every 30 minutes or every hour!
- Decrease fatigue
- 'Undo' the postures you are in during the day



Q9

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continued

Stretches

- Wrist – Flexors and Extensors
- Neck ROM – in all directions
- Low back
- Hamstring stretch
- Chest stretch
- Scapular retraction
- Shoulder & neck stretch

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continued

Other Wellness Considerations

Sleep

Diet

Exercise

Relaxation

Q10

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continued

Free Resources

- OSHA
 - Computer Workstation eTool
 - <https://www.osha.gov/SLTC/etools/computerworkstations/checklist.html>
- Cornell University Ergonomics
 - <http://ergo.human.cornell.edu/>
- The Back School
 - <https://thebackschool.net/>

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Summary

Try for NEUTRAL POSTURES

Check the 'BIG 3'

Make MOVING a HABIT

Small changes make a BIG
IMPACT

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Questions?

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THANK YOU!

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