Ergonomics in the Library

Self-care while you work

Victoria "Tori" Eaton, OTD, OTR/L Kaitlyn Blair, OTS Kelsey Sandage, OTS Amy Van Goey, OTS Pete (photo model)

Occupational Therapy

"help people across the lifespan participate in the things they want and need to do through the therapeutic use of everyday activities (occupations)."

(AOTA, 2016)



nttps://s-media-cache-aku.pinimg. com/236x/29/ed/ca/29edca9ea810c569fa6f94249 7671d46.jpg

Ergonomics: A brief overview

What is it?

a science that deals with designing and arranging things so that people can use them easily and safely (Ergonomics, n.d.)

Why is it important?

- Prevents injury
- Promotes wellness
- Productivity

How does it relate to work in library settings?



Desk-based Work Stations



Sitting v. Standing...

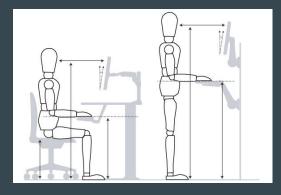
Sitting is unhealthy...

- -increased risk of heart disease
- -increased risk of kidney disease
- -change in fat metabolism

...so is standing...

- -increased stress on cardiovascular system
- -varicose veins
- -more fatiguing

(CUErgo, n.d.)



http://www.katahdincedarloghomes.com/blog/standing-desks/

Chairs

Needs to fit YOU

- Too wide, too narrow?
- Back of knees hit the seat pan?
- Build your work area around the chair



http://physioworksbc.tumblr.com/post/101120816401/chair-ergonomics-fitting-a-chair-to-you

Chair Selection & Set up

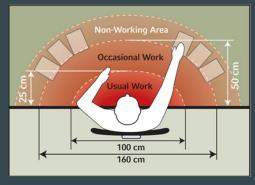
_

- -Should allow for multiple positions
- -Dynamic-we are meant to move!
- -Tilt features
- -Height adjustments
- -Adjustable seat pan depth
- -Arm rests- removable?
- -Feet touch the floor, or need a foot rest?



Desk Considerations

Most used items closest Close to midline



http://www.buildings.com/articledatails/articleid/5654/title/guide-to-ergonomics-at-the-office-and-in-the-field.aspx



http://www.katahdincedarloghomes.com/blog/standing-desks/

Monitor(s)

- —-Natural viewing angle of 15 degrees
- —-Eyebrow height 1-2" from top of screen
- —-Distance of 20-26" (approximately arm length is preferred)

Consider monitor size

- -Monitor perpendicular to light source
- -Angle two monitors
- -Document holder
- -Brightness/contrast level



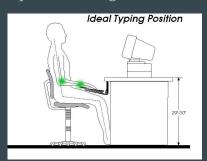
https://blog.codinghorror.com/computer-workstation-ergonomics/

Keyboards

Height slightly lower than elbow

Neutral or negative angle

Open elbow angle



http://ergo.human.cornell.edu/ahtutorials/typingposture.html

Wrist in line with forearm

Ergo keyboards



http://www.thehumansolution.com/

Mice

Various options based on individual need

Vertical mice:

-Prevent wrist pain

-Hand & fingers in a neutral position

Right/left options









Dynamic Work & Ideas



http://weathercreative.com/weatherkittyapp/chronicle/wp-content/uploads/2014/11/library_cat.jpg



com/sites/default/files/styles/article_640x430/public/620alphaletizedsquashed.jpg

Shelving

Transport books with a rolling cart

Pay attention to posture

Lower shelves-- sit on a chair

Use two hands on heavier books

Wrist stretches afterward

http://kellydagan.com/wpcontent/uploads/2014/06/Libr arianShelving-229x300 ing





http://multimedia.uga.edu/media/images/Russell-Building-28365-161.jp

Book Repair

Sharpened tools; let tools do the work

Built-up handles

How long are you bending over?

How long are you looking down?



Patron Service

How long are you in that position?

Sit if you can

Standing-- have an anti-fatigue mat

Wrist position for books: discuss



Wellness



Microbreaks

"Microbreaks are regular, small, biologically meaningful breaks from being stuck in one position"* Meaningful Movement 20/1 Rule Individualized and sustainable

(Ingrahm, 2006)

Stretch!

Dynamic stretches
Increase circulation to muscles and joints
Aids in the prevention of injury

Let's practice!



Neck/Head Position

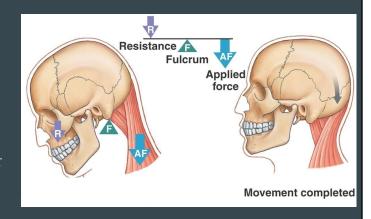
Head and neck create a lever

Poor posture: Pain

Poor head/neck posture related to eyestrain

Setup environment to support proper head/neck alignment

Chin-tuck stretch



https://alexeinstein.files.wordpress.com/2014/09/lever1.jpg

20-20-20

What is it?

- Every 20 minutes
- Look at something20 feet away
- 20 seconds

Why?

- Eye Strain
- Static staring
- Bright screens
- Reduction of eye hydration





Care for your Feet

Base of support

Supportive shoes

Footrest

Anti-fatigue mat



http://www.comprehensivetherapy.



https://www.amazon.com/Imprint%C2%-AE-CumulusPRO-Commercial-Standing-Anti-Fatigue/dp/B005UA2WO2/ref=sr_1_1? ie=UTF8&qid=1468540779&sr=8-&kewwords=anti-fatigue+mat+cumulus

Hydrate

2 L water/day minimum

Ensure breaks

Keep eyes moist

Increase energy

Improve concentration

Decrease muscle fatigue

...microbreak, anyone?





Thank You!



References

Alexandra. (2014). Lever of human body. *The Physics Corner*. Retrieved from: https://alexeinstein.wordpress.com/2014/09/03/lever-of-human-body/

AOTA. (2016). http://www.aota.org/about-occupational-therapy.aspx#sthash.gZgMzKyK.dpuf

CUErgo. (n.d.). Cornell University Ergonomics Web. Retrieved from http://ergo.human.cornell.edu/CUESitStand.html.

Ergonomics. (n.d.). In Merriam-Webster online. Retrieved from http://www.merriam-webster.com/dictionary/ergonomics

Hedge, A. (2016). Workstation ergonomic tips: Computer monitors and posture. *Spine<u>universe.com</u>*. Retrieved from: http://www.spineuniverse.com/wellness/ergonomics/workstation-ergonomic-tips-computer-monitors-posture

Ingram, P. (2006). Micro breaking: Prevent low back pain neck cricks with lots of little breaks. *PainScience.com*. Retrieved from: https://www.painscience.com/articles/microbreaking.php

Lumsden, Ben. (2015). Ergonomics in the office. [Powerpoint slides]. Retrieved from Pacific University

References (cont'd)

Morrison, G. (2011). How poor posture causes neck pain. *Spine-health.com*. Retrieved from: http://www.spine-health.com/conditions/neck-pain/how-poor-posture-causes-neck-pain

Sheth, U. (2012). Neck pain: Forward head posture v: Desk job ergonomics. Repetitive Stress Injuries. Retrieved from: http://repetitive-stress-injury.blogspot.com/2012/07/neck-pain-forward-head-posture-part-v.html

Tool box talks: The 20/20/20 rule. (2011, August). <u>www.worksafecenter.com</u>. Retrieved from: <u>http://oregonstate.edu/ehs/sites/default/files/pdf/ergo/20_20_rule.pdf</u>