



**ELON**  
UNIVERSITY

# Ergonomics 101

“Making Your Workstation Work for You”

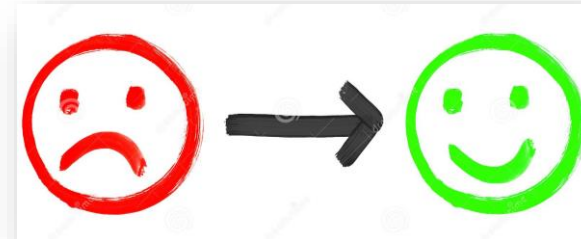
# Agenda & Outcomes

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1. Meet the Ergonomic Evaluation Team.
2. Learn how to adjust your chair to better fit you and your workspace.
3. Learn how to organize your workstation to increase productivity and decrease discomfort.
4. Understand how ergonomics affects your body and why microbreaks are important.
5. Learn how to schedule an assessment.

## ***By the end of this presentation, you should:***

1. Be comfortable adjusting your task chair and understand how the adjustments affect your body mechanics.
2. Be comfortable organizing your workspace in a more ergonomic manner.
3. Consider how your body's health affects your mental health.
4. Contact the team if you have more specific questions or an especially challenging workstation setup.



# Ergonomic Workstation Evaluation Team



**Felicia Cenca**

HR Consultant for HR Compliance and Title IX  
Human Resources

HR Consultants work with employees requesting ADA accommodations and provide guidance around compliance related concerns in the workplace.



**Chris Jamison**

HR Consultant for HR Compliance Equal Opportunity  
Human Resources

HR Consultants work with employees requesting ADA accommodations and provide guidance around compliance related concerns in the workplace.



**Meg Fisher**

Assistant Director of Administrative Services  
Administrative Services

Insurance and Risk Management helps to mitigate potential claims and losses against the university, and manages the workers compensation program should an employee sustain an injury while at work.



**Patrick Schwartz**

Senior Buyer  
Purchasing

Purchasing helps to procure all ergonomic tools at the best possible value as well as sourcing new ergonomic tools that will assist with workspaces.



**Holly Hodge**

Director of Interior Design  
Planning, Design and Construction

The Interior Design team at Elon specifies all the furniture on campus. We search to find the best product for the space, balancing form, function, ergonomics and value.



**Srikant Vallabhajosula**

Associate Professor of  
Physical Therapy Education  
School of Health Sciences

Dr. Srikant Vallabhajosula is a faculty member in the Department of Physical Therapy Education and has background in Biomechanics. He uses his expertise to examine how body position and mechanics can help prevent or result in short-and long-term injuries.



**Jenny Gonzalez**

Interior Designer  
Planning, Design and Construction

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## Instructional Video: Task Chair

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<https://www.youtube.com/watch?v=DmXBxqyHRT8>

# Ergonomic Task Chair Adjustments

## SEAT HEIGHT

- Feet flat on the floor
- Thighs parallel to the floor
- Hips and knees in the same line

## SEAT PAN DEPTH

- 2" clear behind the knees

## BACK LOCK, RECLINE TENSION, AND LUMBAR SUPPORT

- Unlock back lock
- Adjust recline tension to allow for open hip angle
- Adjust lumbar to fit the natural curve of the lower back

## ARMREST HEIGHT

- No higher than seated elbow height

## BACK & LUMBAR SUPPORT

## SEAT HEIGHT ADJUSTMENT (TYPICALLY, ON THE USER'S RIGHT)

## ARMREST HEIGHT

## SEAT PAN



# Instructional Video: Workstation Ergonomics

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<https://www.youtube.com/watch?v=waOdYTZ-Rj0>

# Basic Workstation Ergonomics, Part 1

## CHAIR HEIGHT

- To adjust your chair to the correct height, make sure your feet can sit flat on the floor or on a footrest with your thighs parallel to the ground. The seat pan should be adjusted so it is not touching the back of your calves.

## WORK SURFACE

- Adjust your chair height to ensure your arms are in a neutral position.

## KEYBOARD

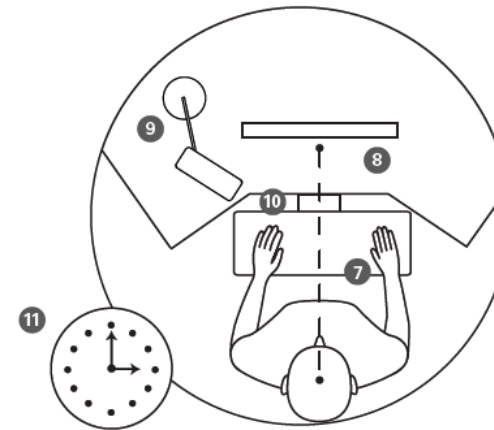
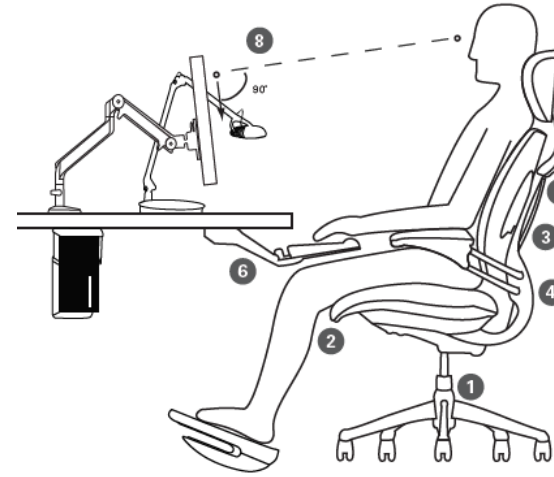
- Make sure the tabs are down on the underside of the keyboard
- Minimize reaching. Bring your keyboard close to you so your arms are in a neutral position. Align with the edge of your desk to ensure the edge of the work surface is not hitting your wrists. Palm supports are okay if they are resting on the palm, not the wrist.

## KEYBOARD TRAY

- Position the keyboard 1 to 1.5 inches above your thigh.
- Look for keyboard supports with negative tilt adjustability to keep wrists straight and in a neutral position.

## MOUSE

- Position your mouse close to the keyboard to minimize reaching, and avoid anchoring your wrist on the desk



## SIT

- 1 Raise or lower the seat to ensure your thighs are parallel to the floor with your feet flat on the floor or a footrest.
- 2 Adjust seat pan depth to maintain two inches of clearance between the back of your knees and the front edge of the seat.
- 3 Adjust backrest height to comfortably fit the small of your back.
- 4 Adjust the recline tension, if necessary, to support varying degrees of recline throughout the day. Avoid the use of recline locks.
- 5 Lean back and relax in your chair to allow the backrest to support your upper body.

## TYPE

- 4 Use an articulating keyboard support and position it 1 to 1.5 inches above your thighs. Angle the keyboard away from your body to keep wrists straight while typing. Rest your palms—not your wrists—on a palm support.

## MOUSE

- 7 Position your mouse close to the keyboard or over the numeric keypad to minimize reaching. Avoid anchoring your wrist on the desk. Instead, glide the heel of your palm over the mousing surface and use your entire arm to mouse.

## VIEW

- 8 Position the monitor at least an arm's length away with the top line of text at or slightly below eye level. Tilt the monitor away from you so your line of sight is perpendicular to the monitor.

## ILLUMINATE

- 9 Position a task light to the side opposite your writing hand. Shine it on paper documents but away from computer monitors to reduce glare.

## ALIGN

- 10 Align the monitor and spacebar with the midline of your body and arrange frequently used work tools within easy reach. Prop reference documents between your body and the monitor with an in-line document holder.

## REST

- 11 Take two or three 30- to 60-second breaks each hour to allow your body to recover from periods of repetitive stress.

# Basic Workstation Ergonomics, Part 2

## MONITOR

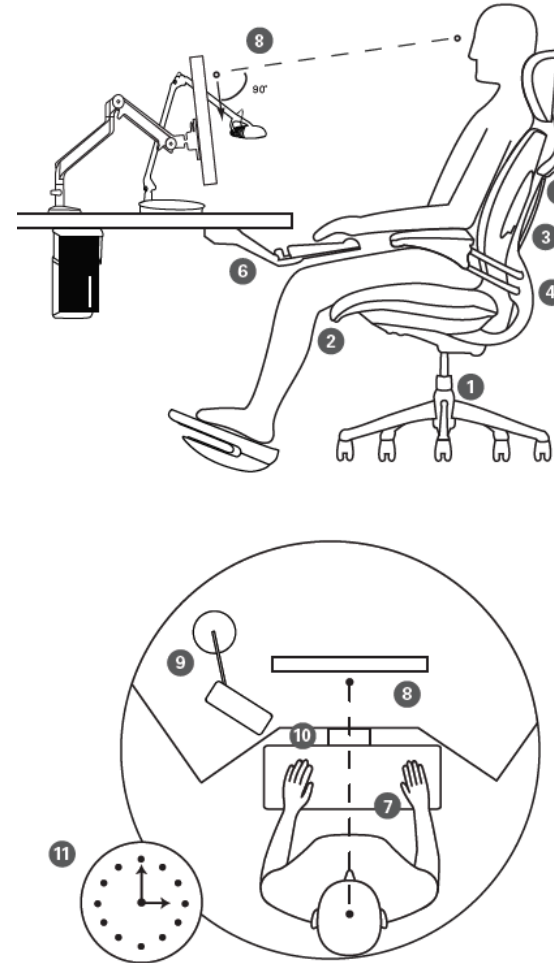
- Align the top of the monitor at or slightly below eye level
- OSHA recommends 20"-40" for the distance of the monitor away from your body; A good rule of thumb is about an arm's length away.
- Monitor Alignment
- Single monitor- Center Keyboard, monitor with the midline of the body
- Multiple monitors- Center with your body at a 15-degree angle with a viewing distance of 30-33"

## PHONES AND FREQUENTLY USED DEVICES

- Place items in close proximity to your body that you frequently use often. If you are on the phone a lot during the day, consider using a headset.

## LIGHTING

- Position task light or lamp so light source is below eye level.
- Position the task light to the side opposite your writing hand.
- Shine it on paper documents but away from computer monitors to reduce glare
- Task lights provide the right amount of light necessary for viewing hard copy documents while helping to prevent glare and Computer Vision Syndrome. Use of task lighting has been linked to boosts in mood and productivity and allows for lower levels of ambient lighting.



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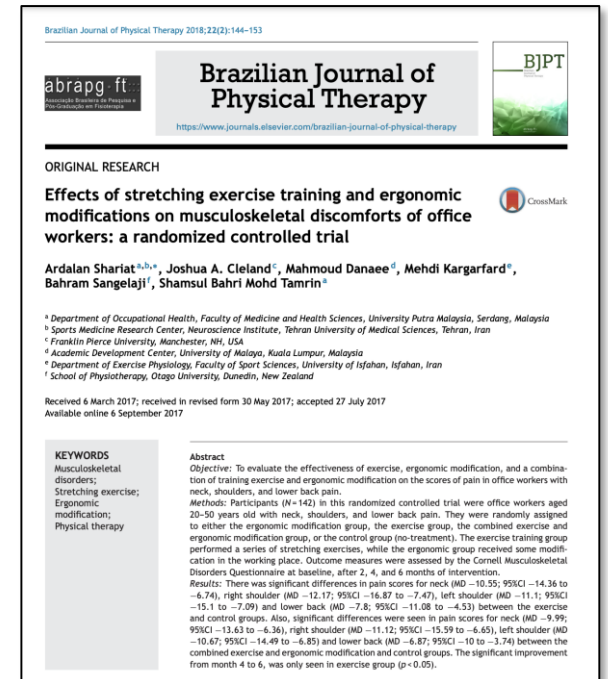
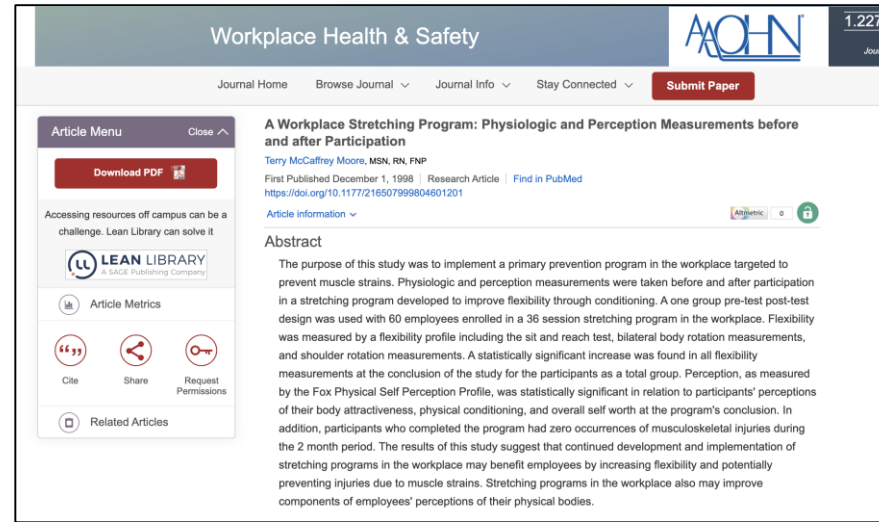
### REST

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# It's NOT all about the work and the workstation!

All work and  
no play makes  
Jack a dull  
boy.

<https://giphy.com/gifs/search/all+work+and+no+play>



Sometimes it should  
be about **YOU** –  
**Stretch once in  
a while!**  
**Take a break! –**  
Have a kitkat 😊

- Improves flexibility
- Reduced incidence and pain due to musculoskeletal injuries
- Improved perception of self-worth
- Higher work-engagement and lesser fatigue at the end of the day

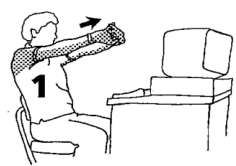
# Stretch – Before and During work!



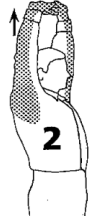
## COMPUTER & DESK STRETCHES

Approximately 4 Minutes

Sitting at a computer for long periods often causes neck and shoulder stiffness and occasionally lower back pain. Do these stretches every hour or so throughout the day, or whenever you feel stiff. Photocopy this and keep it in a drawer. Also, be sure to get up and walk around the office whenever you think of it. You'll feel better!



10–20 seconds  
2 times  
(page 90)



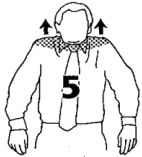
10–15 seconds  
(page 46)



8–10 seconds  
each side  
(page 44)



15–20 seconds  
(page 46)



3–5 seconds  
3 times  
(page 46)



10–12 seconds  
each arm  
(page 47)



10 seconds  
(page 89)



10 seconds  
(page 89)



8–10 seconds  
each side  
(page 88)



8–10 seconds  
each side  
(page 60)



10–15 seconds  
2 times  
(page 46)



Shake out hands  
8–10 seconds  
(page 89)

Taken from: *Stretching* by Bob Anderson

## 4 Stretches You Can Do At Your Desk

1 SEATED  
LEG  
RAISES

Hold for five seconds and  
repeat 15 times, alternating legs.



2 PRAYER  
STRETCH



Place the palms of your hands  
together to stretch the wrists.

3 CALF  
RAISES



Raise your heels off the floor and stand on  
your toes. Lower back down and do 3 sets of 10.

4 SQUATS



Stand up from your chair  
and sit back down 10 times.

### BONUS STRETCH! ABS SQUEEZE

Take a deep breath and tighten the abdominal muscles,  
bringing them in towards the spine as you exhale.  
Hold for 5–10 seconds and release. Repeat for 12–15 reps.

pt Health  
pthealth.ca

<https://www.pthealth.ca/blog/why-taking-a-stretch-break-at-work-is-so-important>

# Take microbreaks

- 1 minute 4-5 times an hour to allow your body to recover from periods of repetitive motions.
- Set timer on your phone or computer to remind!
- There is an app for that!



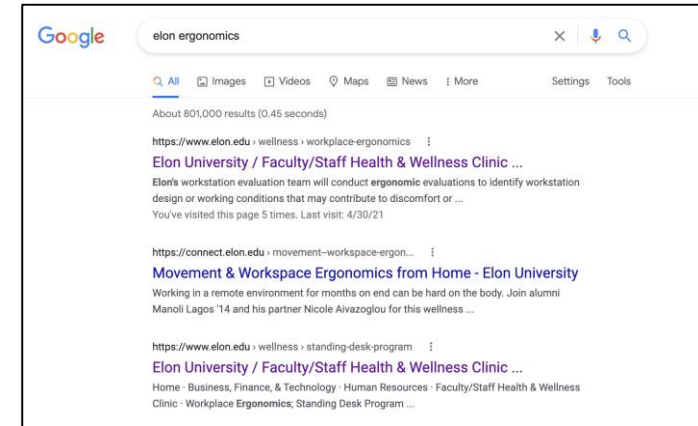
<https://www.breakingnews.ie/lifestyle/should-we-be-taking-microbreaks-throughout-the-day-1109232.html>

# The Ergonomic Assessment Process

How to request an ergonomic assessment:

<https://www.elon.edu/u/bft/wellness/workplace-ergonomics/>

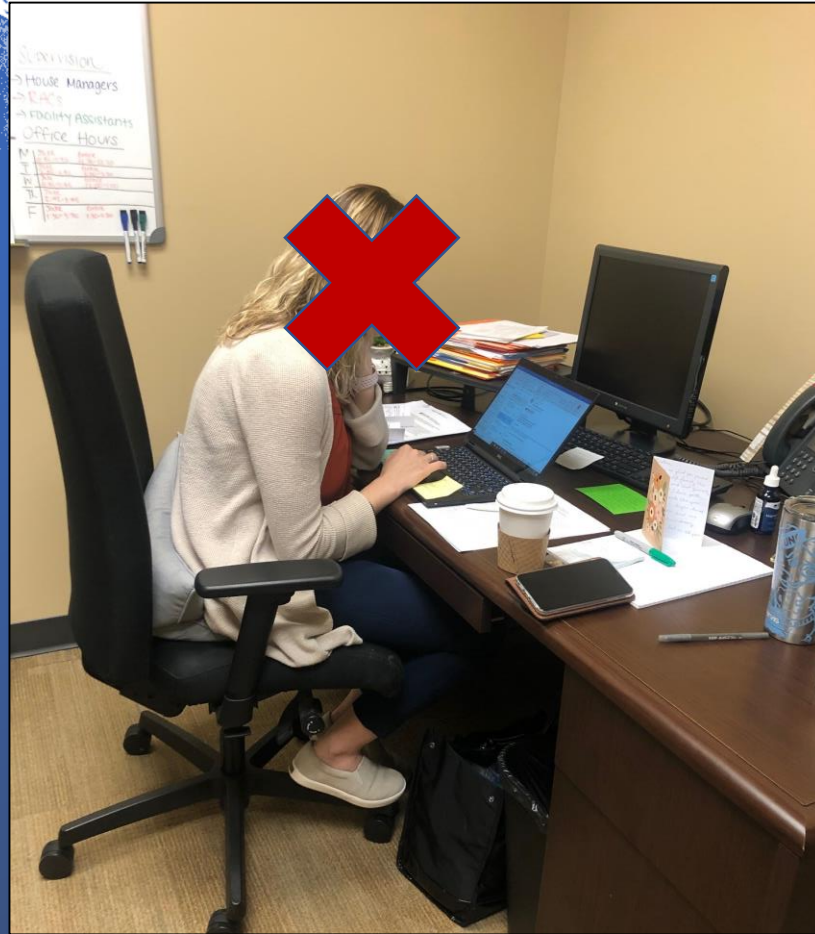
On the Faculty/Staff Health & Wellness Clinic Website, or search 'Elon Ergonomics' on Google



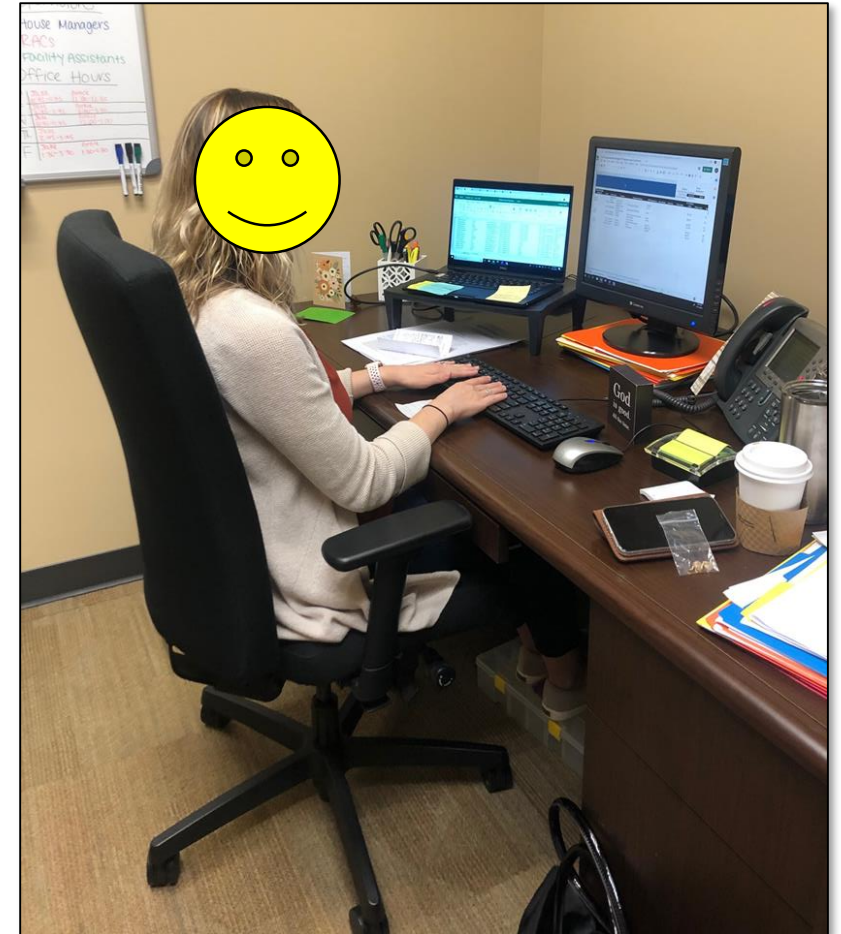
The team generally does evaluations in teams of 2

- During the assessment process, Ergo team member will:
  - Reach out to you via email to set up a time to come to your workstation
  - Ask you to fill out pre-assessment document and send it to them
  - Observe you working in person to understand your current work pattern and assess your needs
  - Provide adjustments to equipment and ergonomics training based on your current equipment
  - Fill out an assessment document with any further recommendations and send to you and your supervisor

# Ergonomic Assessment



Pre-assessment



Post-assessment



# Ergonomic Key Points

- Be aware of your body and how you are working throughout the day.
- Give the changes 2 weeks to show improvement. Stick with the changes as it takes a while to retrain the body from old habits.
- Take microbreaks: 1 minute 4-5 times an hour to allow your body to recover from periods of repetitive motions.
- Encourage movement and change in posture throughout the day.
- Ergonomics is preventative discipline to help reduce your risk factors for long term injury and fatigue.

# Open Q&A

Feel free to send a question in the chat or unmute to share your question with the group!

