Ergonomic Tips for Working and Schooling at Home During COVID-19

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Practicing Ergonomist for the last 20 years

Mother to Madison (4th grade)
Poll #1
Which best describes your current role?

a) Remote worker
b) Student
c) Teacher/school administrator
d) Parent administering remote-school for your child/ren
e) Remote worker/teacher who is also administering remote-school for your child/ren
Workers & Students

Are they all that different?
Physical Workspace

Cognitive Load

Psychosocial Factors

- Time Management
- Video Meetings
- Isolation (Social Support)
- Motivation
- Locus of Control

Laptop / Tablet
Small Screen
Keyboard / Mouse / Monitor
Desk / Chair
Exercise / Movement
Unique Challenges

Students
• Parents are not teachers

• New to email and online classroom computer systems

• No PE/recess (physical & social outlet)

• Lack of accountability (peer influence/competition, grades)

• Last served in terms of household furniture/space/equipment

Workers
• Multi-tasking (Remote-Schooling + Instant Messaging + Homemaking + Parenting + More WHILE working)

• No water cooler conversations (all work talk)

• No impromptu collaboration (isolated thinking)
Students & Workers

Creative Solutions to Work with what You Have

- Psychosocial
- Physical
- Cognitive
Students & Workers

- Physical
- Cognitive
- Psychosocial
- Creative Solutions to Work with what You Have
Poll #2
Have you set up a work/school-from-home space?

a) Yes
b) No, I am just using my laptop around the house
TECHNOLOGY
- Tablet
- Laptop
- Keyboard
- Mouse
- Monitor

ROOM
- Dining Room
- Kitchen
- Living Room
- Office
- Bedroom

HOUSEHOLD ITEMS
- Table/Desk
- Chair/Stool
- Pillows and Towels
- Cardboard/Game Boxes
- Cutting Board
- Ironing Board
Poll #3
Which room do you primarily work from at home?

a) Dedicated room with a desk
b) Living room
c) Dining room
d) Kitchen
e) Bedroom without a desk/table
Find Your Best Workspace

Primary workspace for keying, mousing and/or handwriting

Project work • Emails • Assignments • Online meetings/lessons

✓ Separate keyboard, mouse & screen
✓ Worksurface at elbow level
✓ Top of screen just below eye level
  ✓ Approx. arm’s length away
✓ Feet & back supported
✓ Minimal glare

No external monitor?
Raise laptop on books, game boxes or riser/stand

Table too high?
Sit on pillow(s)

Difficulty sitting still?
Try wobble stool, balance ball, DIY solutions
Find Your Best Workspace

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 ✓ Minimal glare

Table too high?
Use a lap desk, game box, cutting board

Support the feet with the knees at 90°
Avoid glare & Contact with Hard Edges

Avoid glare from
• Overhead lights
• Windows behind the monitor
• Windows behind worker

Reduce contact stress:
• Soft fabric cloth
• Foam pipe insulation
• Sit closer

Recommendations:
• Shine task light on keyboard/paperwork, not on the screen
• Close blinds behind monitor
• Set monitor at a right angle to window
Poll #4
Which extra computer accessories do you have at home to use with your laptop?

a) Mouse + Keyboard + Monitor
b) Mouse + Keyboard
c) Mouse only
d) Keyboard only
e) Monitor only
f) None, I have no accessories at home
No External Keyboard Available

Angle the laptop at 12 ° using a wedge*

- DIY wedge (paper towel tube + rubber bands)
- Small book
- 3-ring binder

Arm support is good, but avoid contact stress on hard edges

Use a mouse if available

This setup is not recommended for all-day work, only if a keyboard is not available

*Asundi et al., 2012
Change it up – The Kitchen

Take advantage of your portable laptop & use alternative workspaces for **short durations** or specific tasks
Change it up – The Kitchen

Take advantage of your portable laptop & use alternative workspaces for **short durations** or specific tasks
Change it Up – The Living Room

Take advantage of your portable laptop & use alternative workspaces for **short durations** or specific tasks

Support the back & feet
Change it Up – The Living Room

Take advantage of your portable laptop & use alternative workspaces for **short durations** or specific tasks

Support the back & feet
Change it Up – The Floor*

*If you already like to sit on the floor, **raise the work** off the ground & **maintain support** for the body
Avoid Working/Schooling from Bed
Poll #5
Do your student/s (or you) regularly use a tablet for school/work?

a) Yes, it is the primary device
b) Yes, sometimes, in addition to a computer
c) Not for work, just for personal use
d) Hardly ever or never
Using a Tablet

- Prop it up for handsfree use
  - Cookbook stand, 8x10 photo frame, Lego™ build
- Try a stylus (*DIY YouTube™ tutorial*)
- Bluetooth keyboard if available
- If no stand, support the arms with pillows
Headphones may Improve Posture and Focus

Avoid craning your head forward to be near the speakers

- May improve focus & attention span for students that are easily distracted
- Keep volume < 60%
Using your Phone

- Support the arms
- Use your voice
- Use both hands
  - **Swype™**
Make Time to Move

Between School & Work Tasks
• Utilize normal school/work-day transitions
  ✓ To and from “school/work”
  ✓ Up/down stairs or hallways between classes/lessons/meetings

During School/Work
• Stationary stretches and exercises during lectures or meetings
• Use a timer for movement break reminders (every 30 minutes)

Move More
• School includes P.E.
• Get regular exercise
  • YouTube™ workouts/yoga, alphabet challenge, walking (get outside when possible)
Poll #6
How much physical activity are you getting?

a) More movement during the day + more dedicated workouts
b) More movement during the day, but less dedicated workouts
c) Less movement during the day, but fitting in more dedicated workouts
d) Less movement during the day and less dedicated workouts
e) Same as before the shelter-in-place
Take Care of your Eyes

• Every 20 minutes, focus on something 20 feet away for 20 seconds

• Balance 2D screen time with 3D hand-work
  • Crafts, art, building/making

• Try activities that requires change in focus from near to far
  • Frisbee / catch
  • I Spy

• Turn off screens 1-2 hours before bed
Complete Wellbeing

- Reduce Cognitive Load
- Strengthen Internal Locus of Control
- Maintain Motivation
- Stay Connected
Keep a Routine & Schedule

- Maintain a work/life balance by creating boundaries and making a routine for work and personal time
  - Shower, get dressed for work/school
  - Plan a Home-to-Work commute (transition time into working)
  - Plan time for exercise - get outside when possible
  - Maintain standard meal and snack times
  - Shut down computer at the end of the work/school-day

- Set realistic expectations – you are likely less productive than normal

- Schedule is especially helpful for students with anxiety and issues with transitions
  - Student input on schedule - increases feelings of control
  - A school schedule gives working parents some breathing room
Keep a Routine & Schedule

• Time management tips for workers and older students with flexibility to self-schedule
  • Prioritize tasks based on importance/due dates
  • To-do list w specific goals (projects, # of pages, questions, lessons, etc.)
  ✓ Free up your working memory
  • Know your limits (how long should each work segment be?, shorter bursts are better)
  • Use a timer/alarm to help stay on task
  • Eliminate controllable distractions (social media, TV, etc.)
  • Work on one thing at a time

• Rotate activities to maintain motivation despite minimal accountability
Stay Organized

For students that are new to email, help them create folders and learn how to organize the mail they receive

- Schedule time to review and file mail

Filing system for school paperwork

- Accordion file by subject
- Binder with tabs
- File trays or folders
Poll #7
How much time do you spend on video calls/meetings (total for work, school, personal, social)?

a) 0-5 hours per week
b) 6-25 hours per week
c) 26-40 hours per week
d) 40+ hours per week

How about your child?
Tips for Video Meetings

• Be comfortable & avoid extra stress
  • Turn off video when possible
  • Mute yourself to stay ‘hidden’
  • Find good lighting
  • Use an external webcam
  • Handsfree for comfort
  • Strong internet (mobile hotspot)

• Optimize privacy and focus
  • Inform housemates of schedule
  • Minimal family interference
  • Headset with microphone
  • Virtual backgrounds
  • Hang a sheet on a wall or string
  • Sit with back against a wall
Maximize Screen Space

✓ Watch a lecture/lesson while simultaneously taking notes on the same screen
✓ Work on multiple files at one time

Second screen – Position highest quality screen at your midline with second monitor directly to the side

Screen mirroring
• Use a smart TV, Apple TV, etc. to project lesson onto TV screen
• Use lap desk or ironing board for taking notes on laptop
Stay Connected with Family & Friends

- Walk n’ Talk (phone)
- Craft/art hangout (less ‘face’ time)
- Move night (“3-2-1-Start”)
- School work alongside friends
  - Simulated classroom
  - Small groups
- Sports teams training/workout
- Virtual watercooler
  - Informal chats with colleagues
  - Sharing personal stories about working at home
Poll #8
Did you learn any tips that you will use?

a) Yes! I’m going to make changes right away
b) The tips were helpful, but I don’t think I will be able to make any changes
c) Some good reminders, but nothing I didn’t already know
Thank You

More schooling @ home videos and handouts in English and Spanish on [www.learnergo.com](http://www.learnergo.com)

Learn Ergo

More resources and videos for workers and students on the UC Ergo website – [ergo.berkeley.edu](http://ergo.berkeley.edu)

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