Ergonomics in Academia

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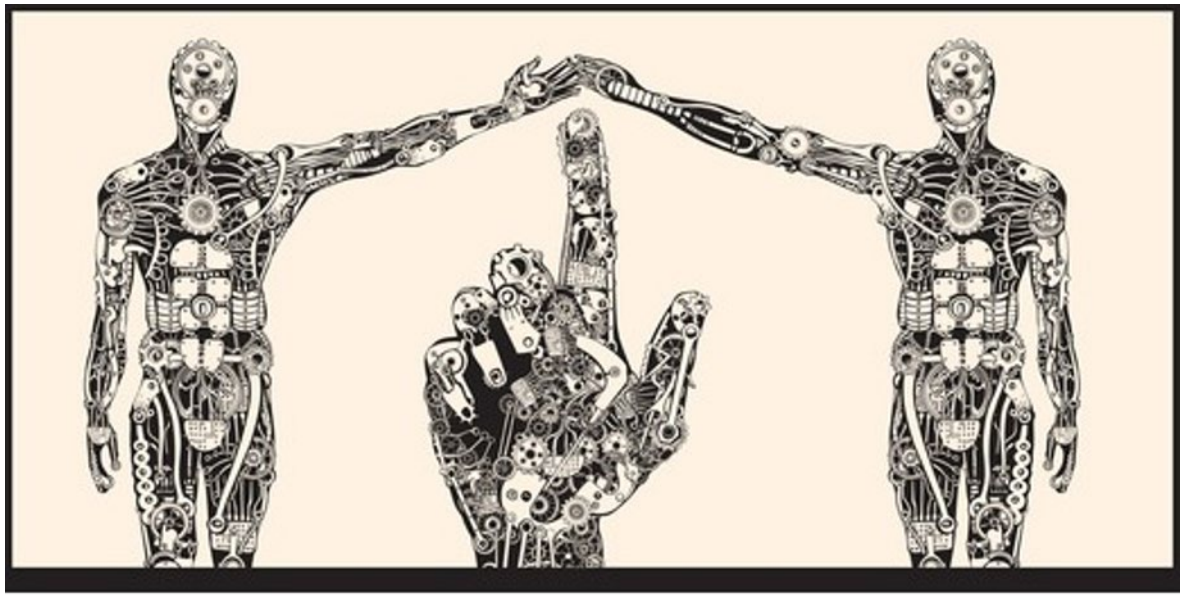
OUTLINE

- Review general principles of body mechanics and ergonomics
  - Sitting and standing posture
- Suggestions for proper work-station design
- Education on easy exercises to do in office setting
- Practice!
- Campus resources

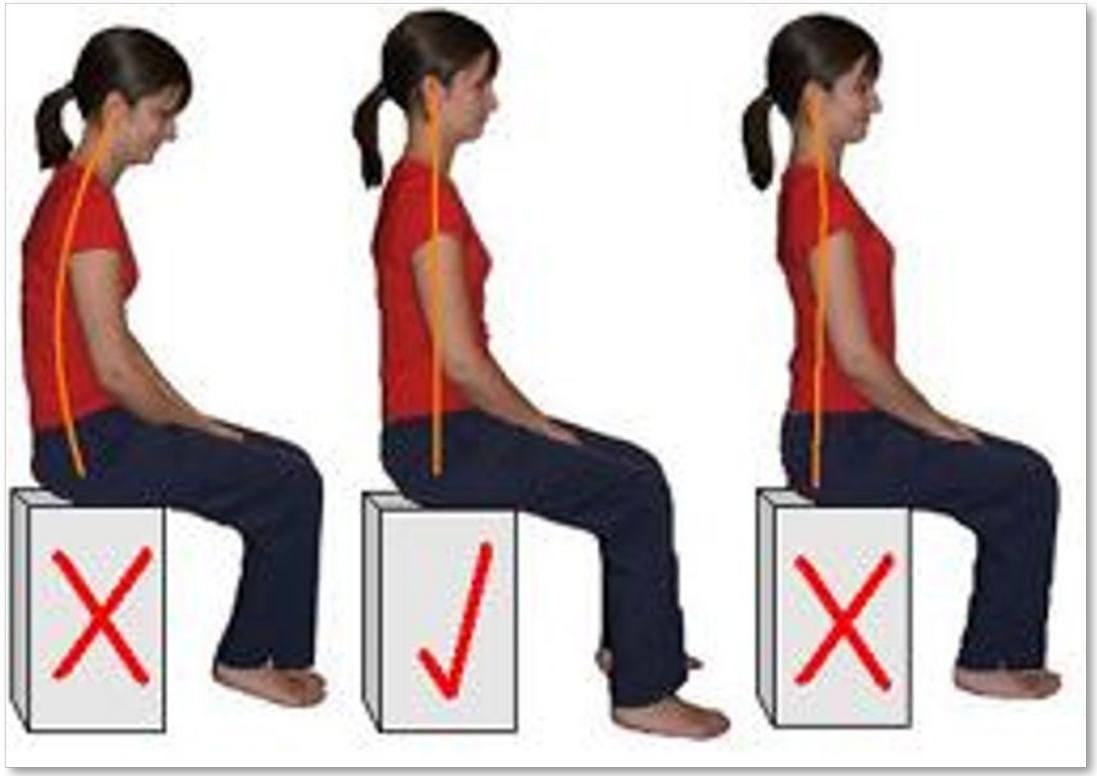
POSTURE & BODY MECHANICS

- Proper body mechanics
- Conserves energy
- Reduces stress/strain on muscles, joints, ligaments, and soft tissue
- Promotes effective, efficient, and safe movement patterns and balance
- Important for respiratory and cardiopulmonary function
- Improves work performance and productivity
- *(1)*



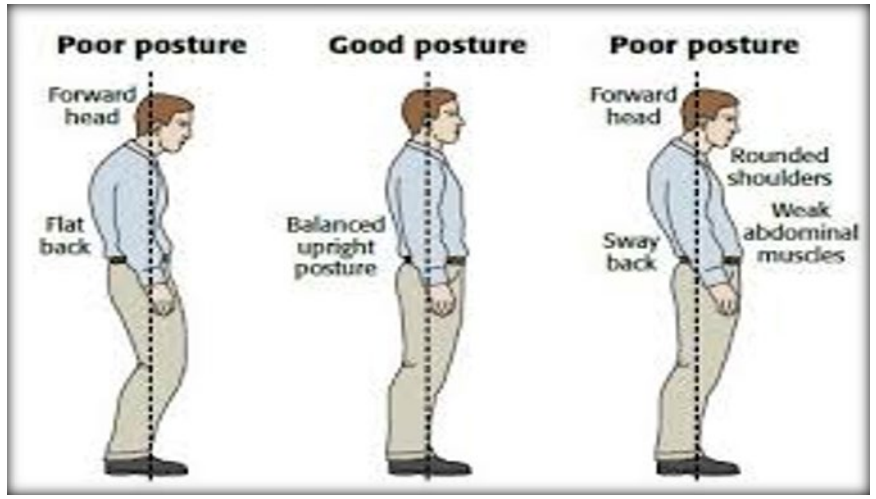
SITTING POSTURE

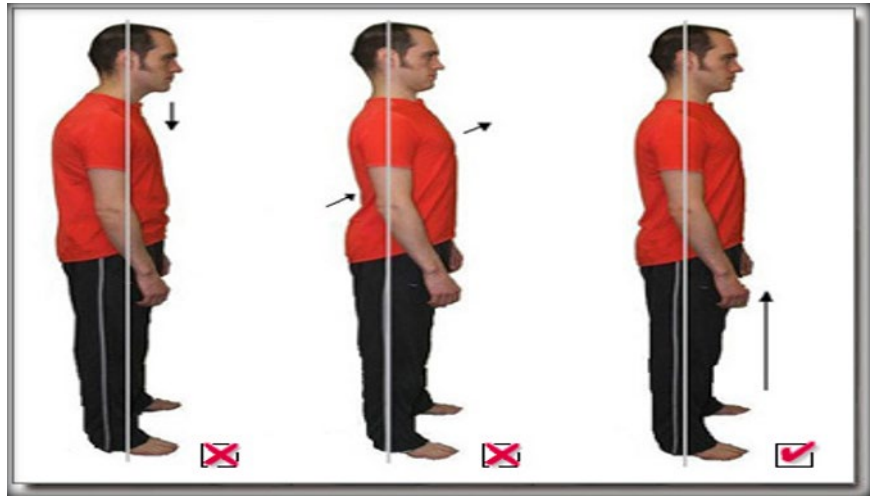
- Chin tucked
- Shoulders down & rested
- Back straight, not arched
- Feet on floor or footrest
- Symmetrical alignment
- Neutral pelvis



STANDING POSTURE

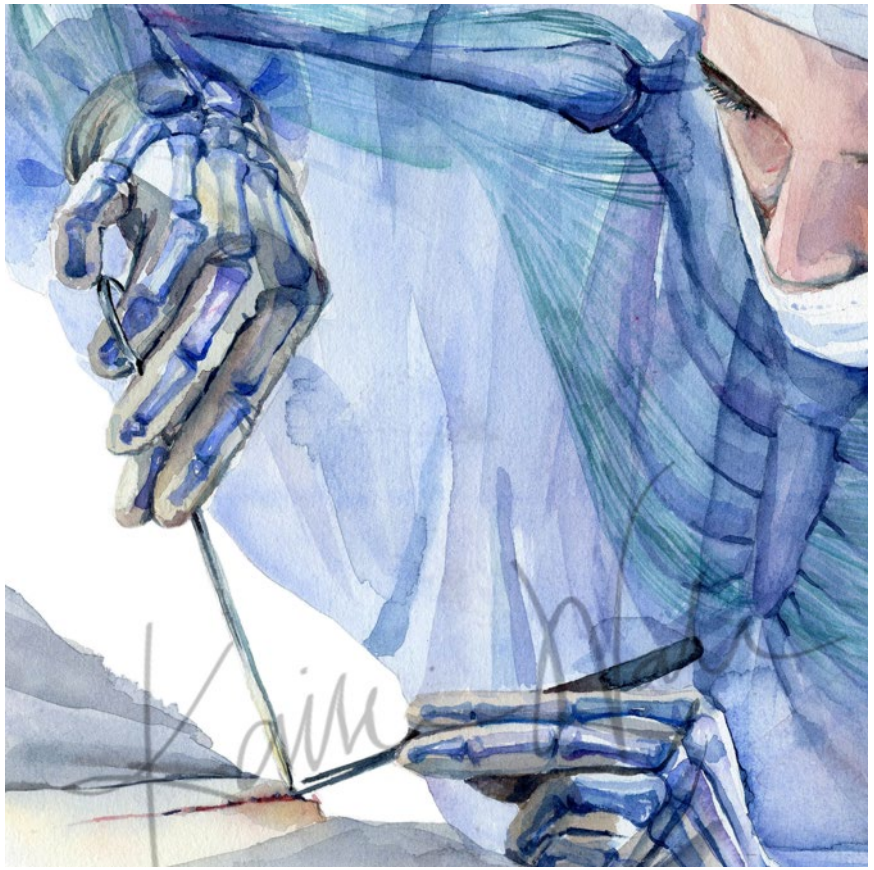
- "Good posture"
  - Plum line: Ears over shoulders, over hips, over knees, over ankles
- Avoid locking knees
  - Can place one foot on low cabinet or stool
  - Alternate feet
- Back in neutral position
  - Avoid excessive lordosis or kyphosis
- Prolonged periods of standing
  - Take regular breaks (30 minutes)
  - Stretch
  - Restore neutral spine
  - *(1)*





ERGONOMICS

- *"Ergos"*=work. *"Nomos"*=laws
- **The laws of work!**
- Science of fitting workplace conditions and job demands to the body & capabilities of the working population
- Ergonomically correct workplace can assist in reducing injury & can conserve energy
- *(1)*

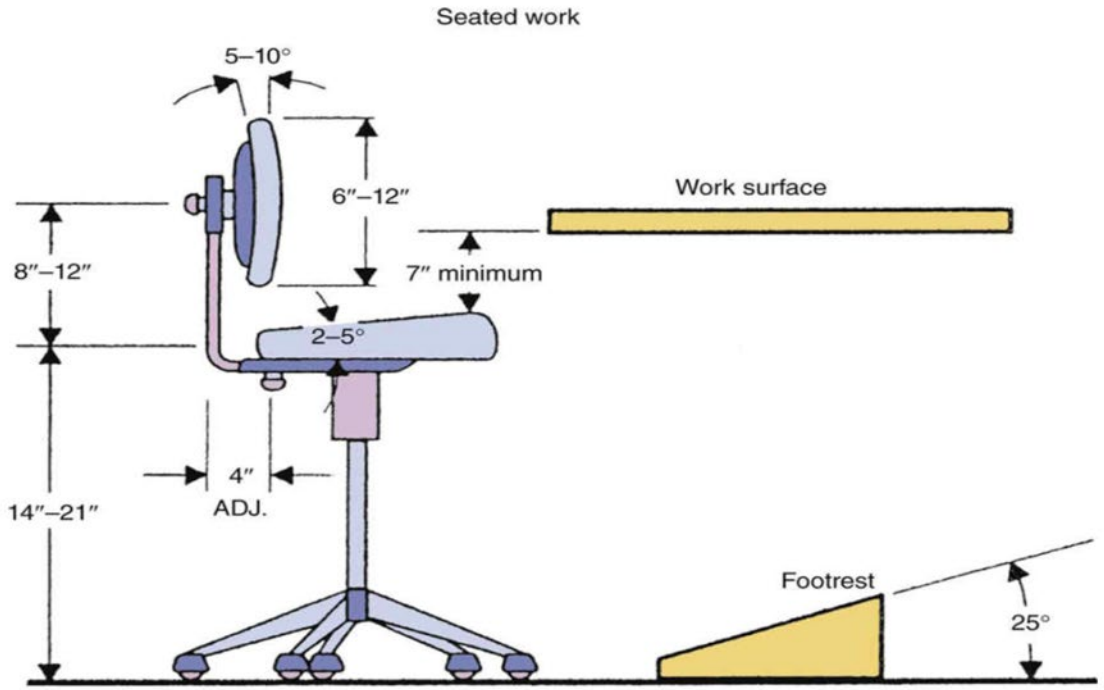


HOW ARE YOUR ERGONOMICS IN ACADEMIA?

- How is your sitting/standing posture?
- How ergonomic is your office set up?
- How ergonomic is your classroom set up?
- How ergonomic is your clinic set up?
- Rest breaks, walking breaks, and stretches?
- How does poor ergonomics affect your performance?
- Headaches, eye strain, neck/back pain?
- What could be improved?

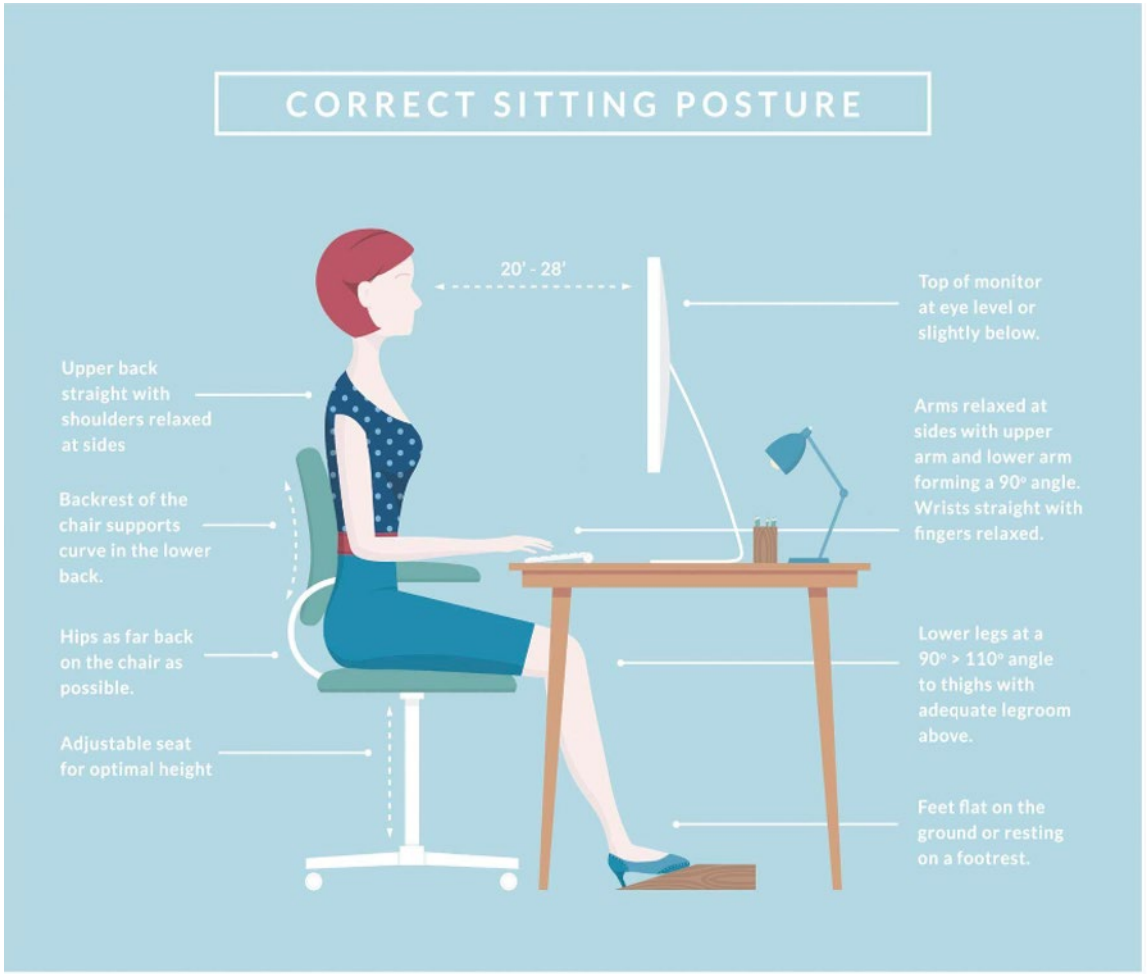
TIPS AND TRICKS FROM THE PROS

OFFICE WORK/COMPUTER WORKSTATION



Optimal work surface height varies with work performed:
Precision work = 31–37 inches
Reading/writing = 28–31 inches
Typing/light assembly = 21–28 inches
Seat and back rest heights should be adjustable as noted in chair requirements

COMPUTER WORKSTATION

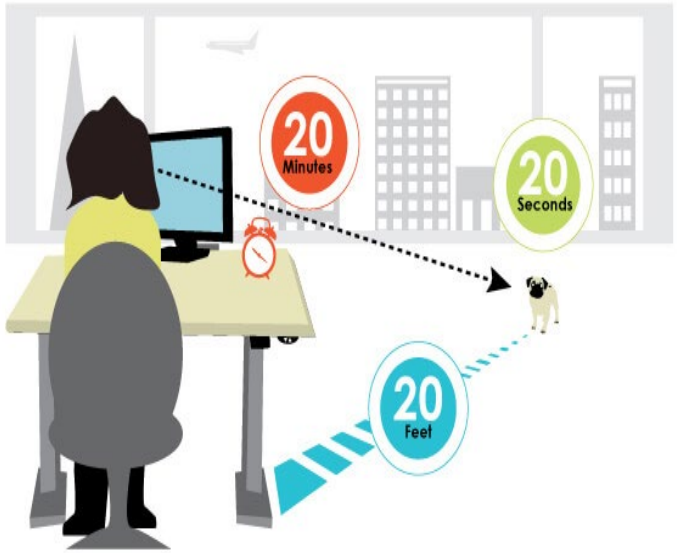


COMPUTER WORKSTATION

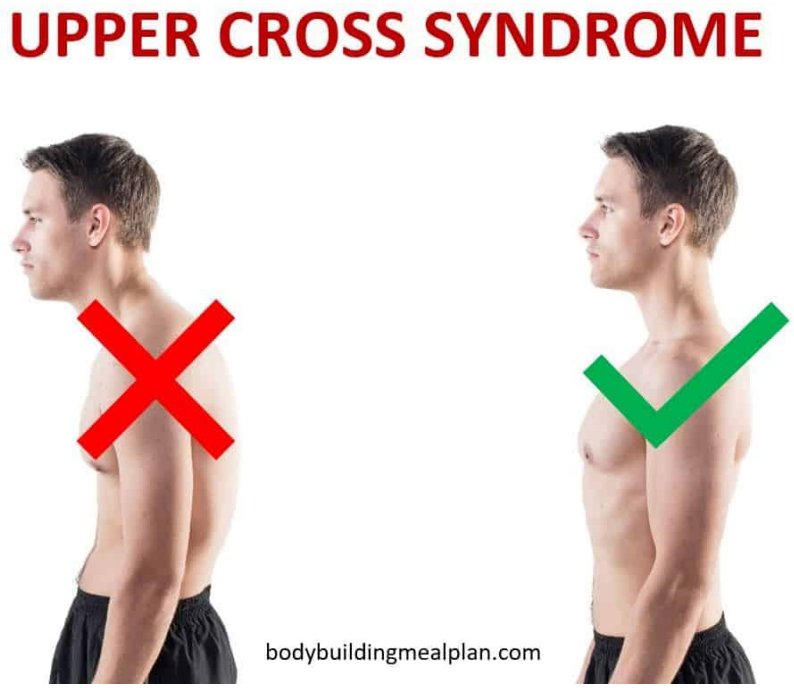
WORKSTATION

LUMBAR SUPPORT & MOVEMENT HACKS

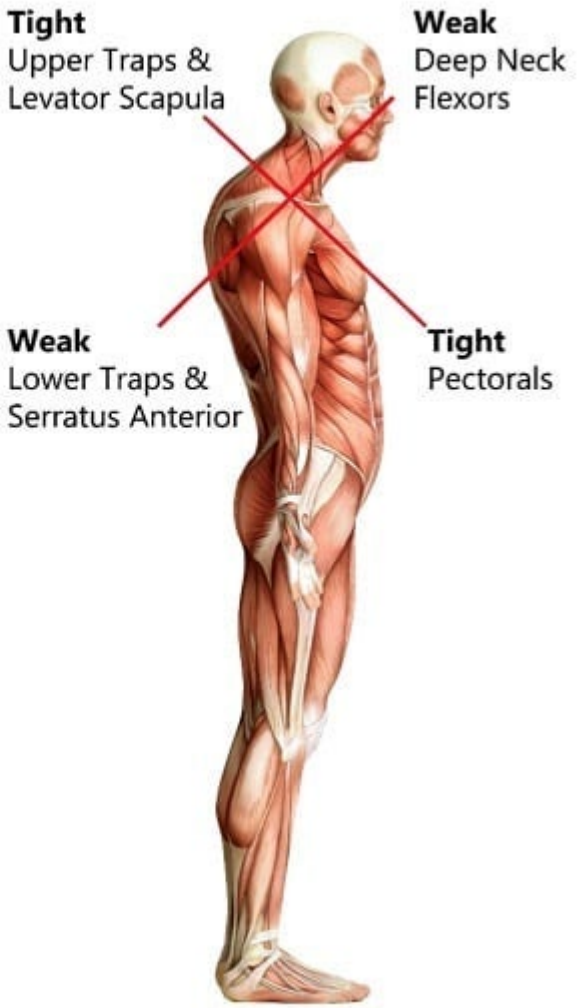
EYE ERGONOMICS

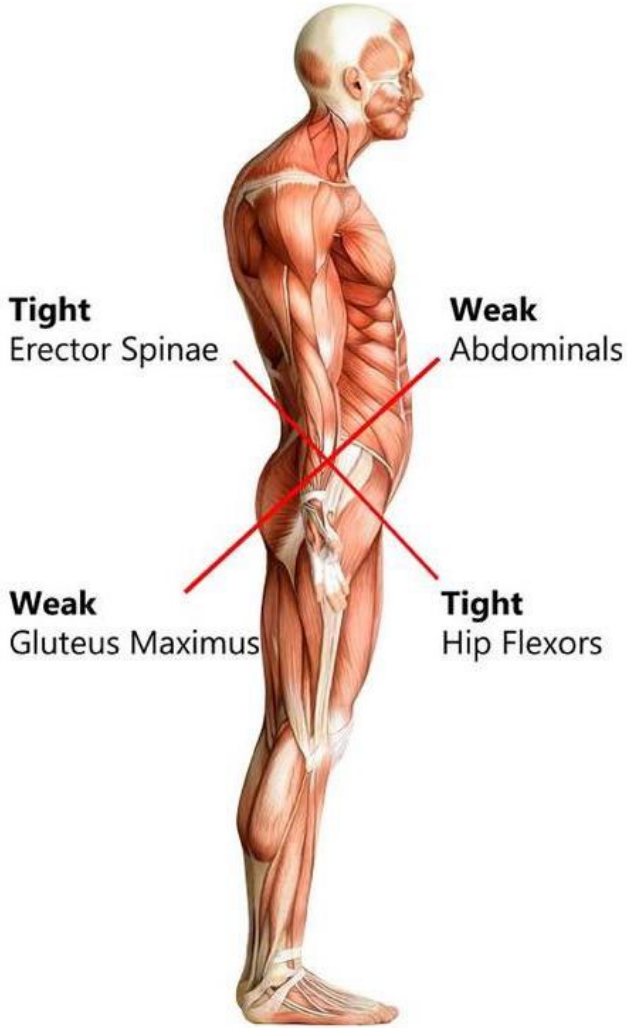


WHAT MUSCLES ARE TIGHT??

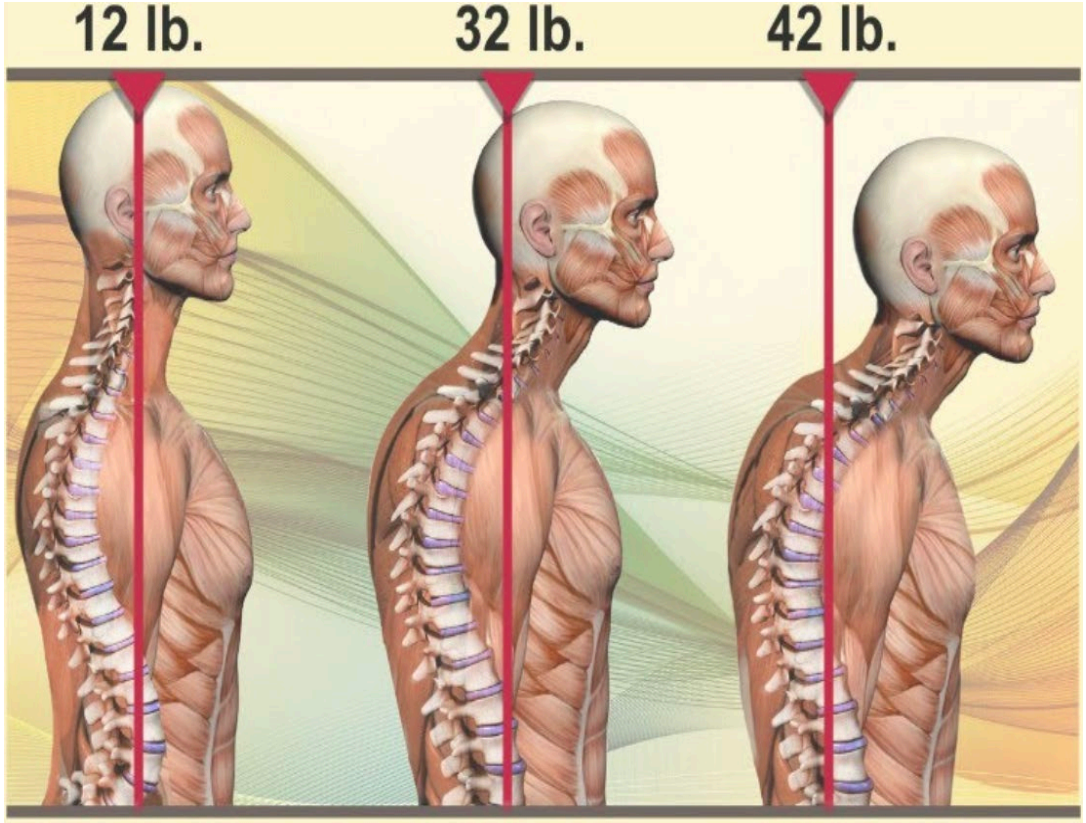


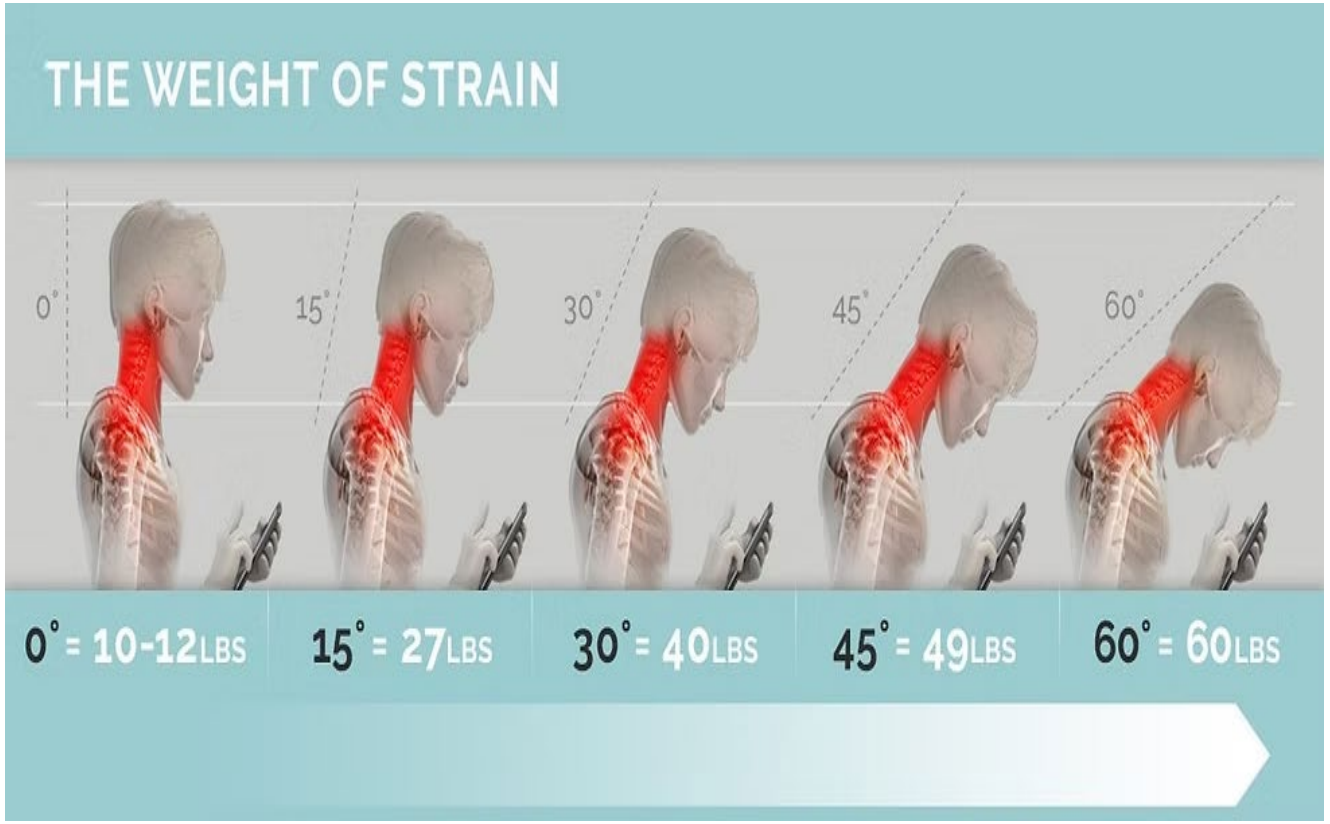
ANATOMY REVIEW



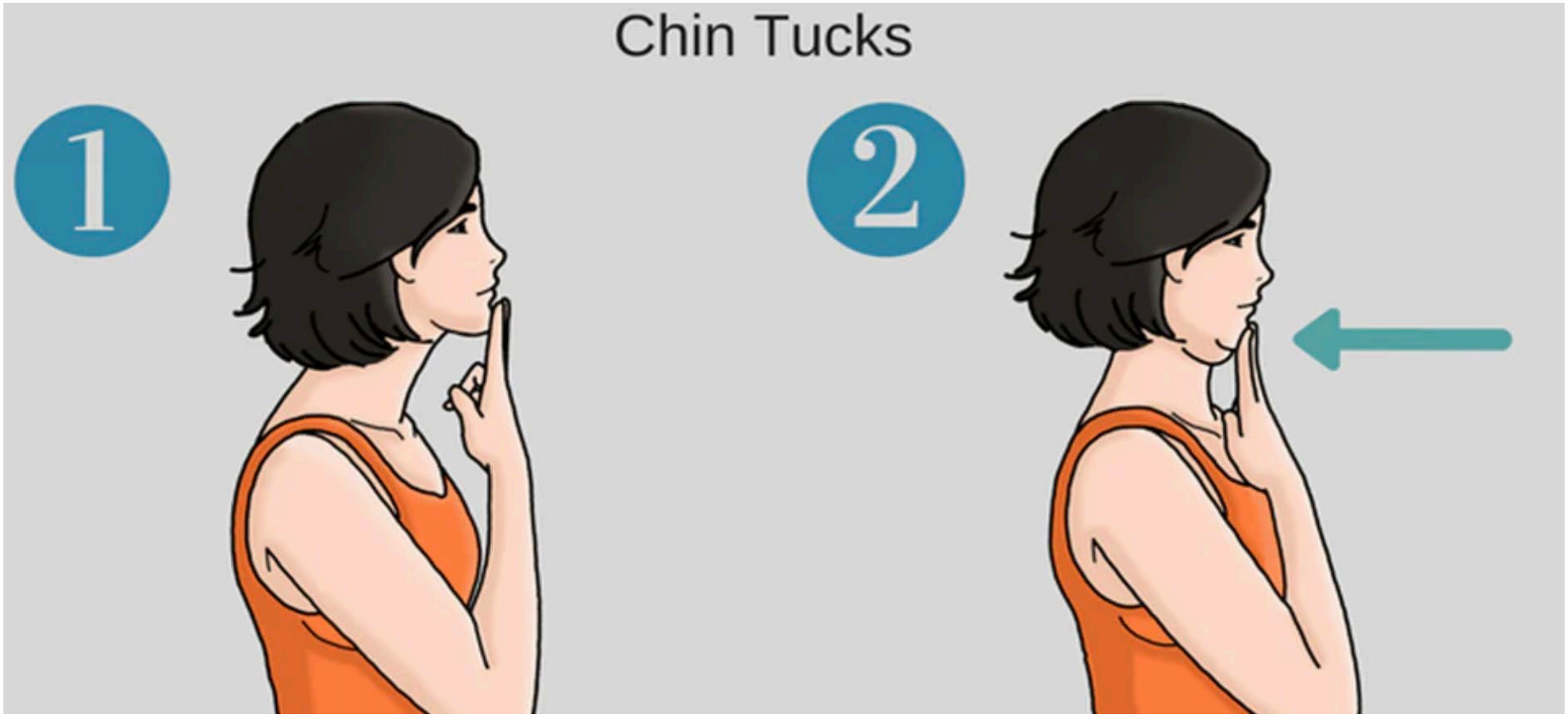


HOW HEAVY IS YOUR HEAD?





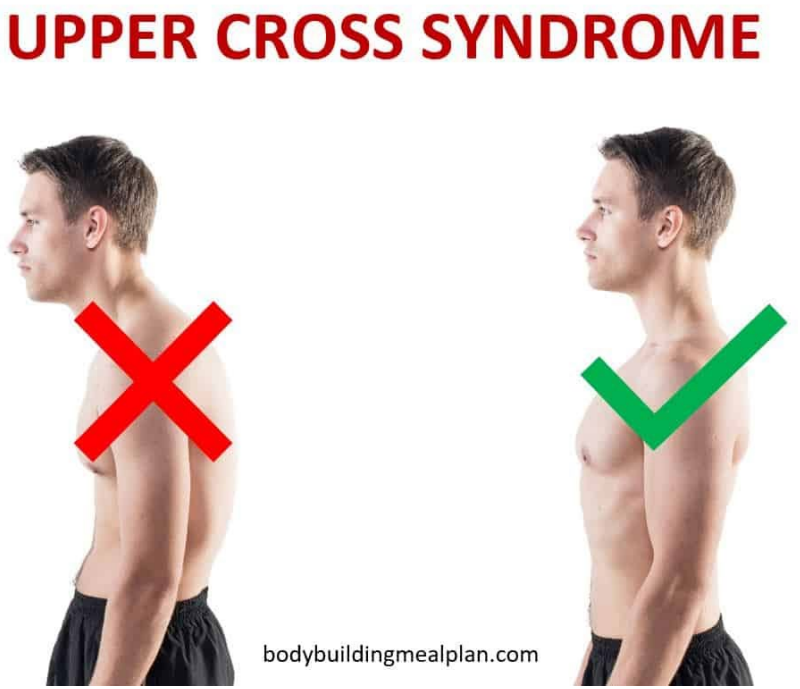
LET'S GET PHYSICAL!


Chin Tucks
1
2

Office Stretches and Exercises

(2)

WHAT MUSCLES ARE WEAK??



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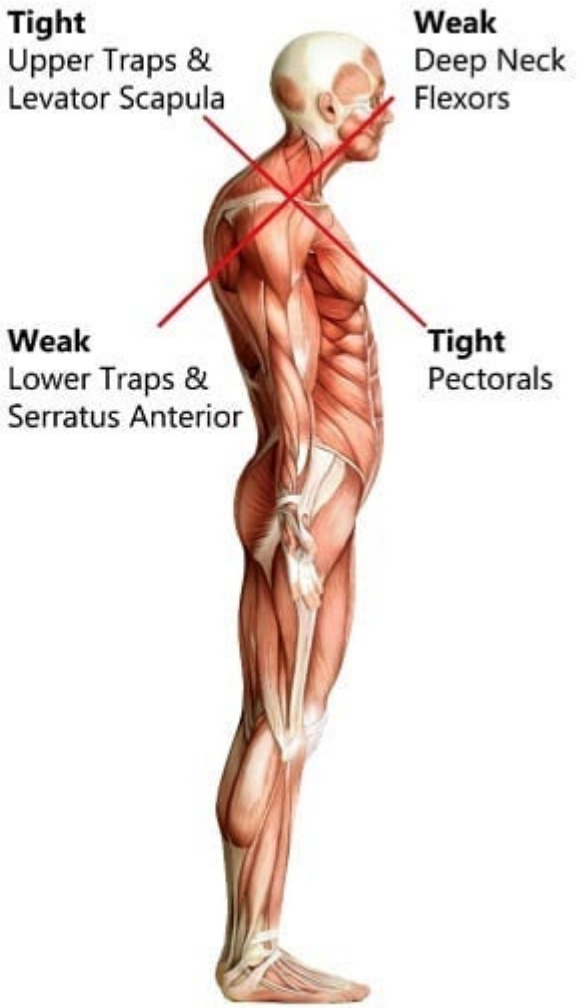

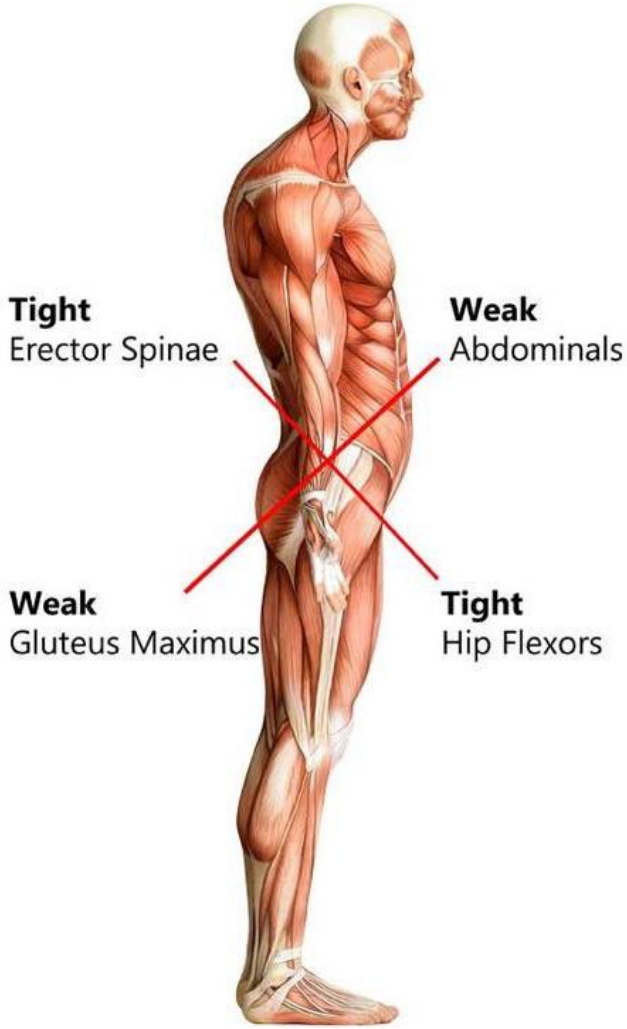

LET'S GET PHYSICAL!

(2)

ERGONOMIC RESOURCES & WORKPLACE ADJUSTMENTS AT LSUHSC

- For concerns related to a medical condition or disability:
- Employees may request a reasonable accommodation through Employee Relations (ER)
- Contact: HRMADA@lsuhsc.edu
- Accommodation Request Medical Inquiry completed by healthcare provider
- ER guides employees through process
- Medical information is confidential and managed by ER

WELLNESS RESOURCES & WORK LIFE BALANCE

- Take rest/movement breaks every 30-60 minutes
- Wellness center located on the 3rd floor of the CALS building
- Elevated walkways
- Outdoor spaces and campus garden
- Consult OT department for ergonomic screening
- Utilize OT or PT clinics on campus
- Prioritize wellness & work life balance
- Campus Assistance Program

REFERENCES

Google images used for presentation

1. Engel, J. M. (2025). Pain management. In H. M. Pendleton & W. Schultz-Krohn (Eds.), *Pedretti's occupational therapy: Practice skills for physical dysfunction* (9th ed., pp. 722–730). Elsevier.
2. HEP2go. (June 4, 2025). Home exercise program for shoulder, cervical, and core rehabilitation. HEP2go. https://www.hep2go.com