

Practical Home Office Ergonomics

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Musculoskeletal Injury or “MSI”

Soft tissue injury or disorder

caused or aggravated by work

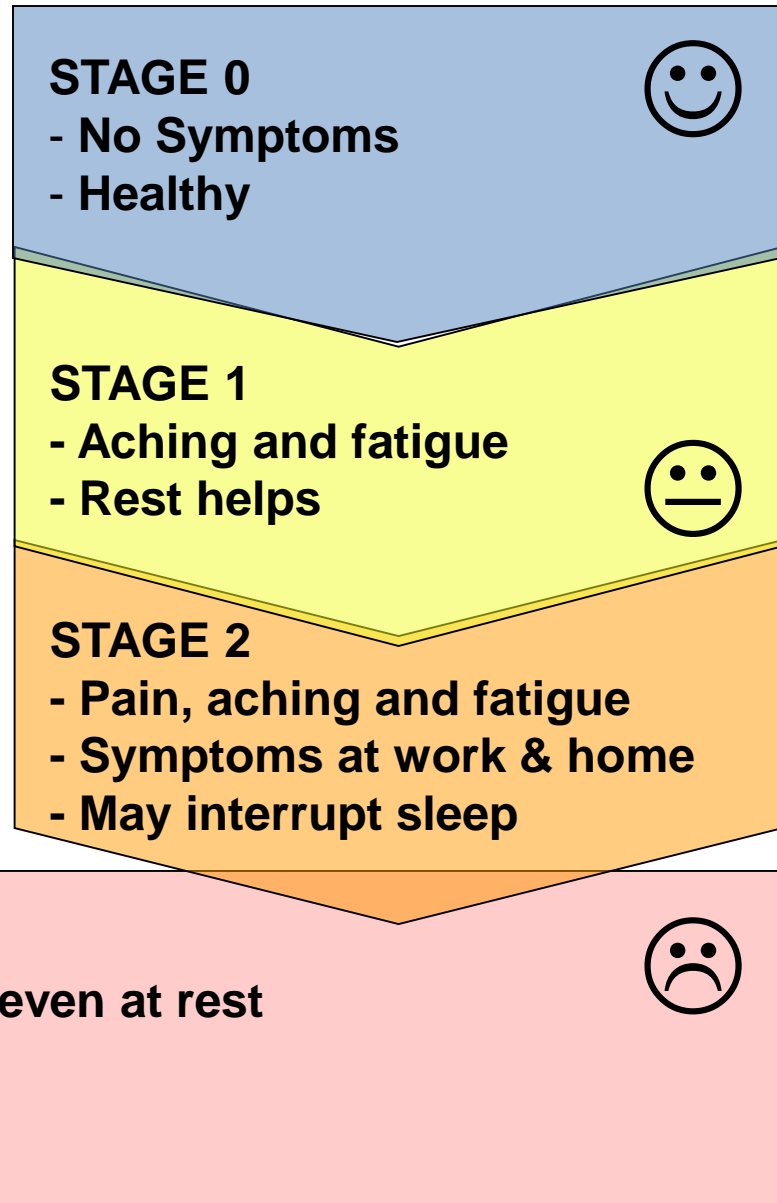
Also called MSD, RSI, ASTD...

Computer-based work:

- usually gradual onset MSI
- upper extremities, back, neck most at risk

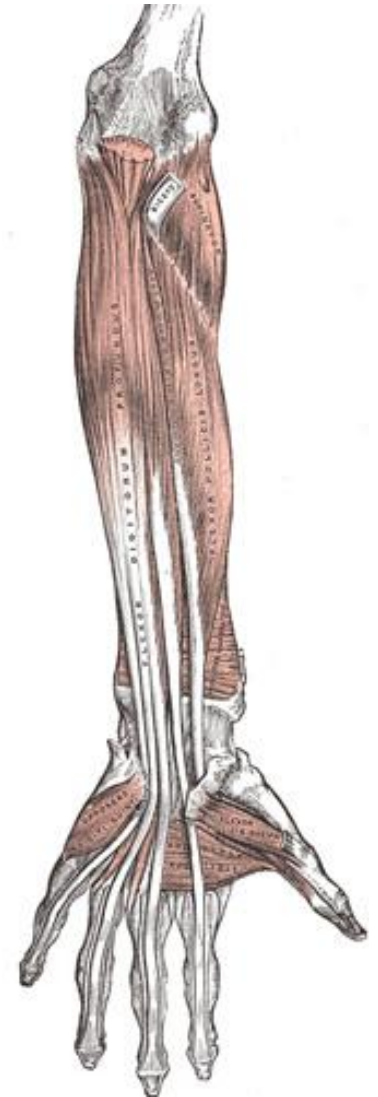
Degenerative MSI Progression

- Gradual onset
- Early symptom recognition
- Have symptoms?
Change something
- If severe or persistent
Ask for help



Tendonitis or Tendinopathy

- Symptoms:
 - swelling, pain, hard to move, ganglion
- Common types:
 - Hand, wrist, shoulder tendonitis
 - DeQuervain's Syndrome (thumb)
 - Epicondylitis (tennis & golfer's elbow)
- Risks:
 - Repetitive hand or finger movements
 - Awkward postures (wrist, forearm, shoulder)
 - Prolonged gripping (mouse hand)
 - Forceful exertion (pinch grip on mouse)

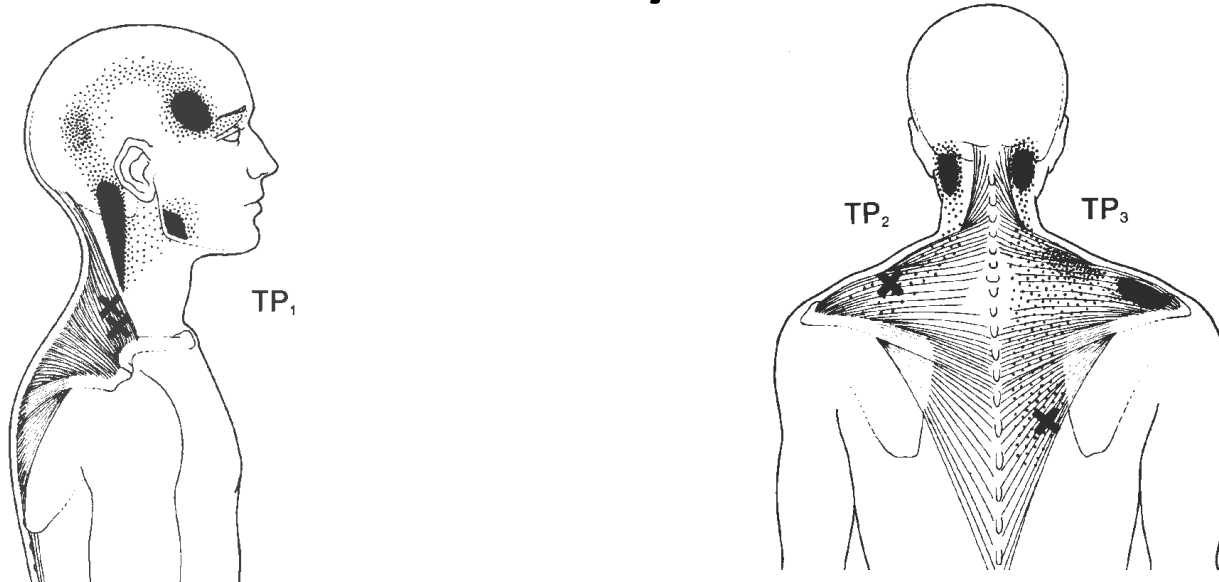


Nerve Entrapment Syndromes



- Injury or irritation to nerves
- “Referred” symptoms:
Downstream pain, numbness, tingling, pins and needles, weakness, clumsy
- Common types:
 - carpal tunnel syndrome; sciatica/low back injury
- Risks: same as tendonitis, plus contact stress

Headaches - Myofascial Pain



Travel & Simons (1983), Myofascial Pain and Dysfunction: The Trigger Point Manual

Risk factors:

Sustained awkward posture of neck, shoulders or upper back

Monitor too low (laptops!) or too far away or not centred

Reach for keyboard or mouse

Reference documents to one side

MSI Control Strategies

In order of preference...

- Engineering – equipment, space and set-up
- Administrative – how you do what you do

Consider:

1. What can you do with existing equipment?
2. What additional equipment would help?
3. What can you do differently?

Target Workstation Configuration

Posture:

– 90°-100° angle at knees, hips, and elbows. Everything else straight



- Monitor:
 - top at eye height; arm's length away; centred to nose; 90° to window
- Lighting:
 - within 2x monitor brightness
- Keyboard/mouse or worksurface:
 - elbow height with relaxed shoulders
- Feet:
 - on the floor or supported in front of the chair
- Standing? 90° elbow. Same targets.

Home Office: Chair and Keyboard/Mouse

Chair too low for keyboard/mouse?

1. Raise chair: cushion, folded towel on seat
2. Lower worksurface: shelf/plank on lap

Chair too high for foot support on floor?

1. Lower the chair (and worksurface)
2. Add a footrest – box, books in front of chair



Home Office: Monitor

Top of monitor to eye height?

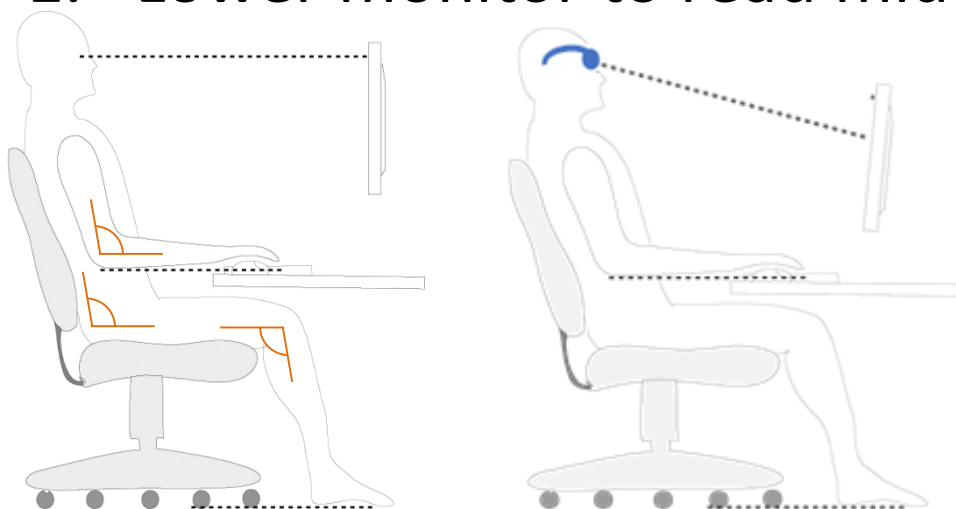
1. Check for adjustable monitor stand
2. Use books, shelf or reams of paper or a monitor riser/arm



Wear progressives or bifocals?

1. Lower monitor to read mid-screen with no neck tilt.

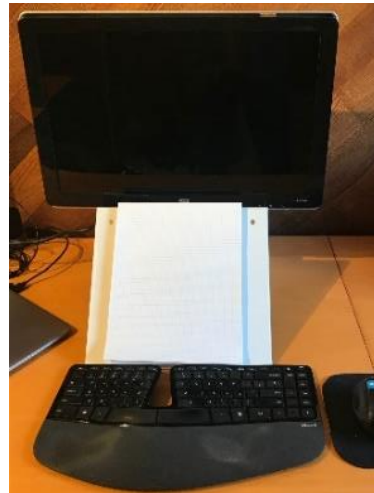
... may need trial & error



Home Office: Reference Documents

Target: between keyboard & monitor, angled up

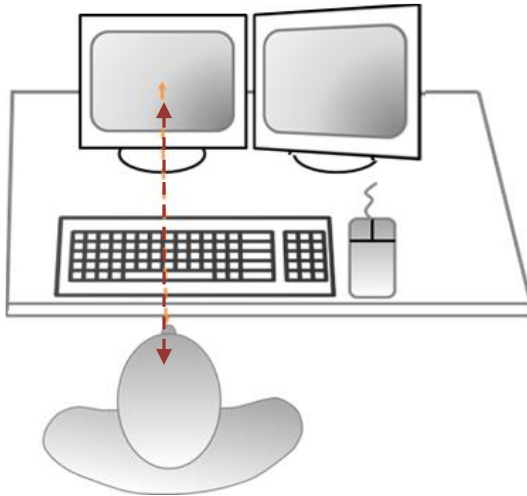
1. Inline document holder
(3M DH630 or VuRyte 18DC)
2. 3" binder or clipboard



Home Office: 2 Monitors?

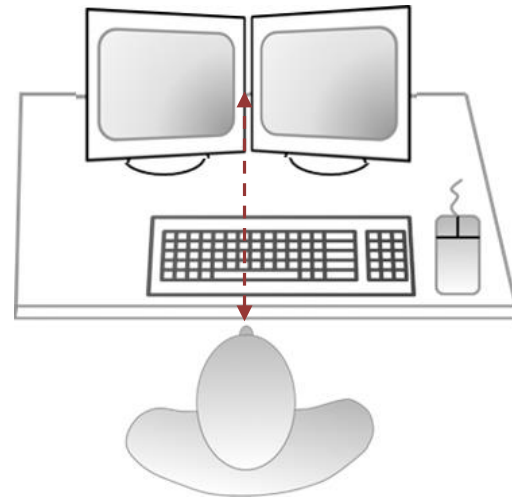
Primary 1° + Reference 2°

- Centre on 1° (nose; b-key)
- 2° to right and angle
- No gap
- Keep active work in 1°



Equal use of both

- Centre between both
- Angle both
- No gap



Home Office: Laptops

Must separate the keyboard and monitor to fit!

1. Peripheral keyboard and mouse
 - USB or Bluetooth for easy connect
2. Peripheral monitor OR Laptop as monitor
 - Top of monitor at eye level
 - Shelf, books or laptop riser



Home Office: Laptop as 2nd Monitor

Treat laptop as reference monitor only

- To right and raised or Inline and below



Home Office: Phones

1. Long phone calls or with calls with data entry?
 - Headset or speaker phone
2. Mobile phone use?
 - Limit text and reading time
 - Short emails/texts only
(computer for long messages)
 - Raise to easy viewing height and tuck elbows in close
 - Headset or speaker



Home Office: Lifestyle

- Establish separation
 - Physical work location
 - Time routine (usual hours)
 - Personal preparation (get ready to work)
 - Personal maintenance (move every hour)
- Maintain connection
 - Schedule regular contact or check-in
 - More frequent contact if isolation

Take Charge of Your Risk Level



- Be aware of early MSI symptoms
- Configure your workstation to fit
- Configure your lifestyle for balance
- Ask for help if symptoms or issues with setting up home office