

Injury Prevention in Laboratory and Desk Jobs

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Coming up

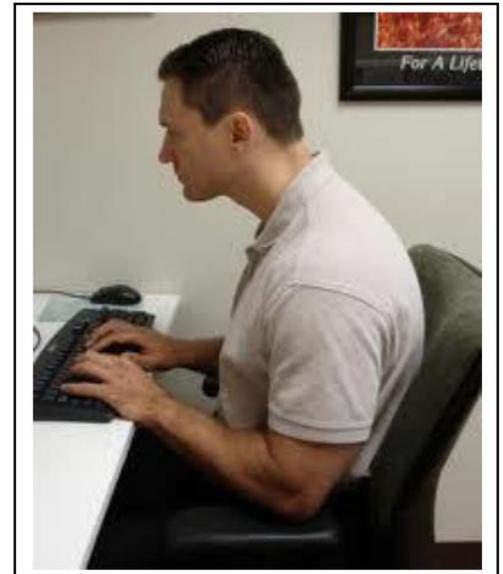
- ▶ **Poor Posture and Associated Conditions**
 - Neck pain
 - Low back pain/sciatica
 - Repetitive strain injury
 - Carpal tunnel
 - Rotator cuff syndrome/poor scapular control
 - ▶ **Impact on your Life**
 - ▶ **Taking Control of Your Health**
 - Rehabilitation
 - Physiotherapy
 - How to Access Physiotherapy
 - ▶ **Education and Helpful Tips**
- 

Poor Posture



Neck and Low Back Pain

- ▶ Poor sitting postures are one of the most common causes of neck and low back pain in the work place
- ▶ When fatigue sets in, your chin naturally creeps forward and your back rounds out adding increased pressure to the base of your neck and low back



This could lead to:

- ▶ Tension headaches
 - ▶ Upper extremity numbness/weakness
 - ▶ Sciatica
 - ▶ Bulging discs
- 

Repetitive Strain Injuries (RSI)

- ▶ Repetitive strain injuries are essentially overuse injuries that occur as the result of doing more than the body can handle
- ▶ Results in trauma to soft tissues, muscles/tendons, and nerves
- ▶ Common examples of RSI in the workplace include carpal tunnel syndrome, rotator cuff tendonitis/tendinosis and tennis elbow.

FIGURE 1

Just Hanging On

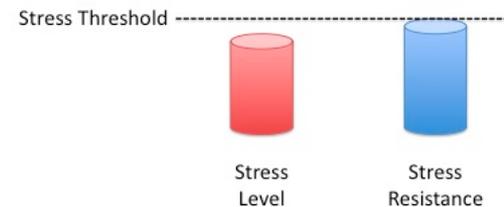
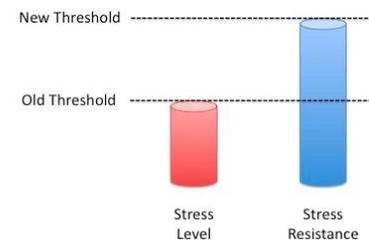


FIGURE 4

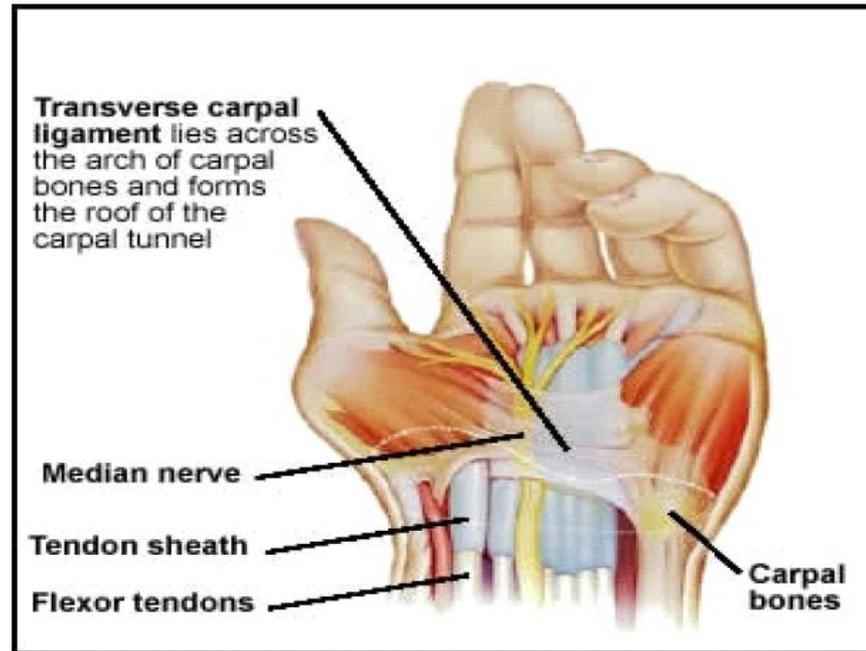
Where You Want To Be



Repetitive Strain Injuries (RSI)

- ▶ Contributing factors in addition to repetitive work include poor ergonomics, posture, stress, inadequate muscle strength, flexibility and endurance and lifestyle choices (smoking, inactivity).
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Carpal Tunnel Syndrome



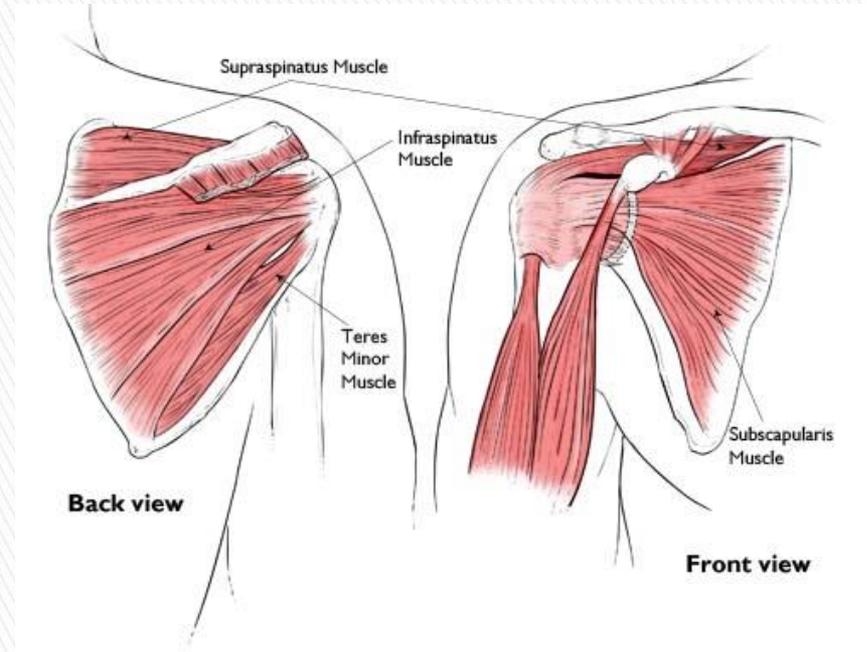
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Carpal Tunnel Syndrome is the most common nerve entrapment disorder, caused by increased compression of the median nerve at the wrist. Symptoms include pain, pins and needles, and ultimately muscle wasting of the hand. It is often found in people who do repetitive work with their wrists (repetitive computer, assembly work).

Conservative treatment of carpal tunnel syndrome includes reducing aggravating factors (key punching, hand clenching etc), improving posture, stretching and strengthening of the wrist as well as manual therapy provided by a registered physiotherapist.

Rotator cuff syndrome

- ▶ Rotator cuff is already small and weak
- ▶ Forward postures lead to tightening of pec muscles and forward migration of the shoulder
- ▶ This causes a stretch to the rotator cuff muscles
- ▶ Rotator cuff stress threshold is lowered to the point of failure



Shoulder Stress vs Shoulder Rest



Impact on your Life

- ▶ Pain
 - ▶ Depression
 - ▶ Sleep Disturbances
 - ▶ Stress
 - Physical
 - Emotional
 - ▶ Health Changes
- 

Taking Control of Your Health



Rehabilitation

- ▶ Physiotherapy
 - ▶ Massage therapy
 - ▶ Chiropractic
 - ▶ Osteopathy
 - ▶ Pilates
 - ▶ Yoga
 - ▶ Proper Diet
 - ▶ Quit Smoking
 - ▶ Stretch before you Work
- 

Physiotherapy

- ▶ Assessment
 - Patient History
 - Objective tests
 - Special tests
 - Diagnosis / Prognosis
 - ▶ Treatment
 - Manual therapy
 - Exercise prescription
 - Modalities (i.e. Ultra Sound, E-Stim, Acupuncture)
 - Education regarding activity modification
 - ▶ Goal is to be self-sufficient
- 

How to Access Physiotherapy

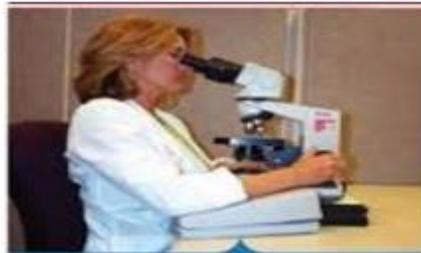
- ▶ In Ontario, a doctor's referral is not required to be treated for physiotherapy
 - ▶ However, some insurance companies require the doctor's referral in order to cover physiotherapy services
 - ▶ WSIB will cover confirmed work–place injuries under their new *Programs of Care* (POCs)
 - ▶ Ask the clinic if they take on WSIB patients and fill out the necessary paper work
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How to Access Physiotherapy

- ▶ Look for Physiotherapists who have a Manual Therapy background.
- ▶ FCAMPT certification is a bonus

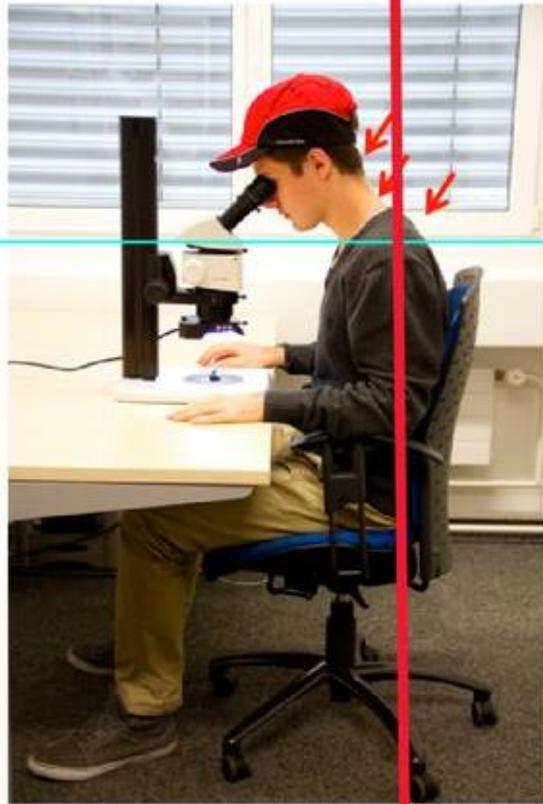
Education and Helpful Tips

Good Posture In Laboratory

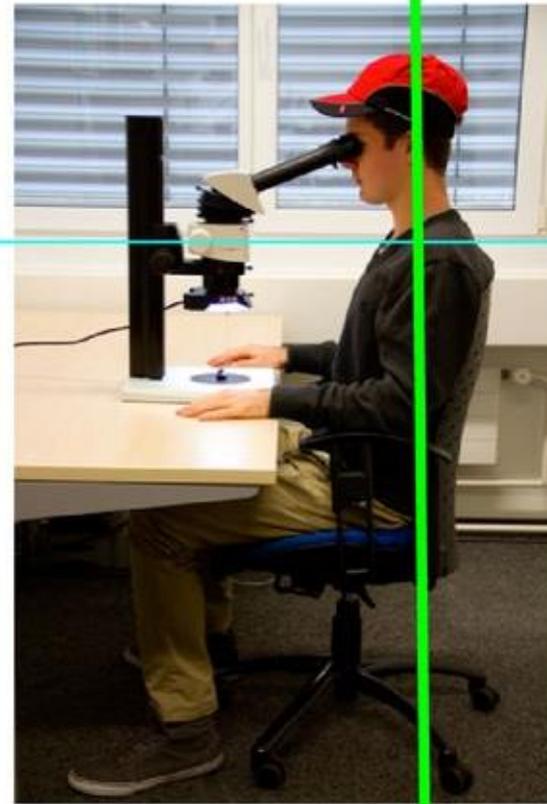


Education and Helpful Tips

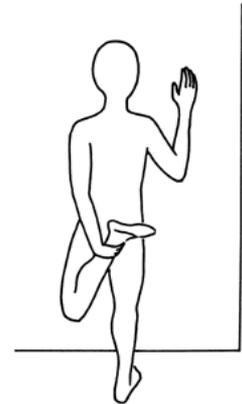
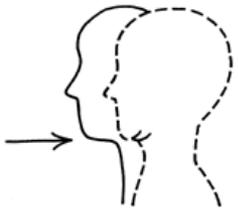
Before



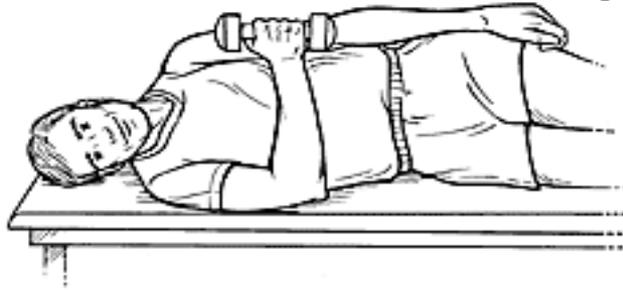
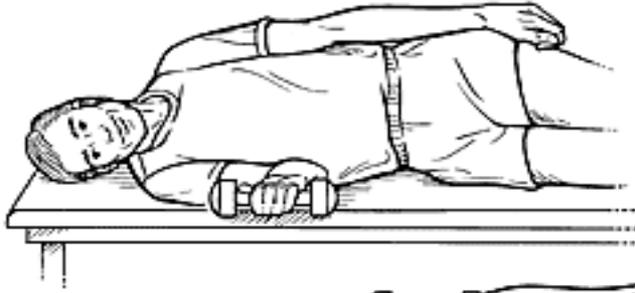
After



Desk-ercises



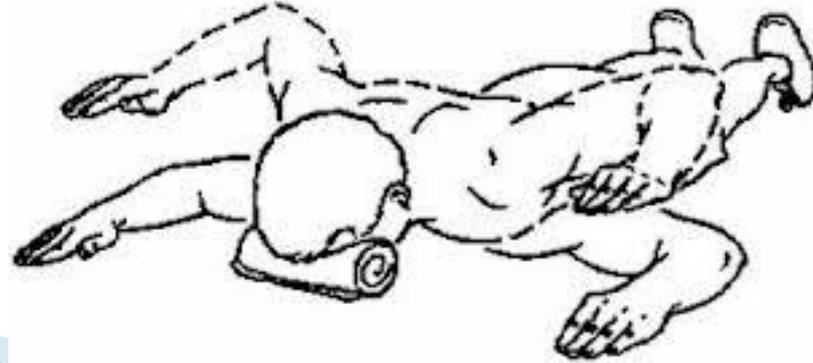
Shoulder Exercises



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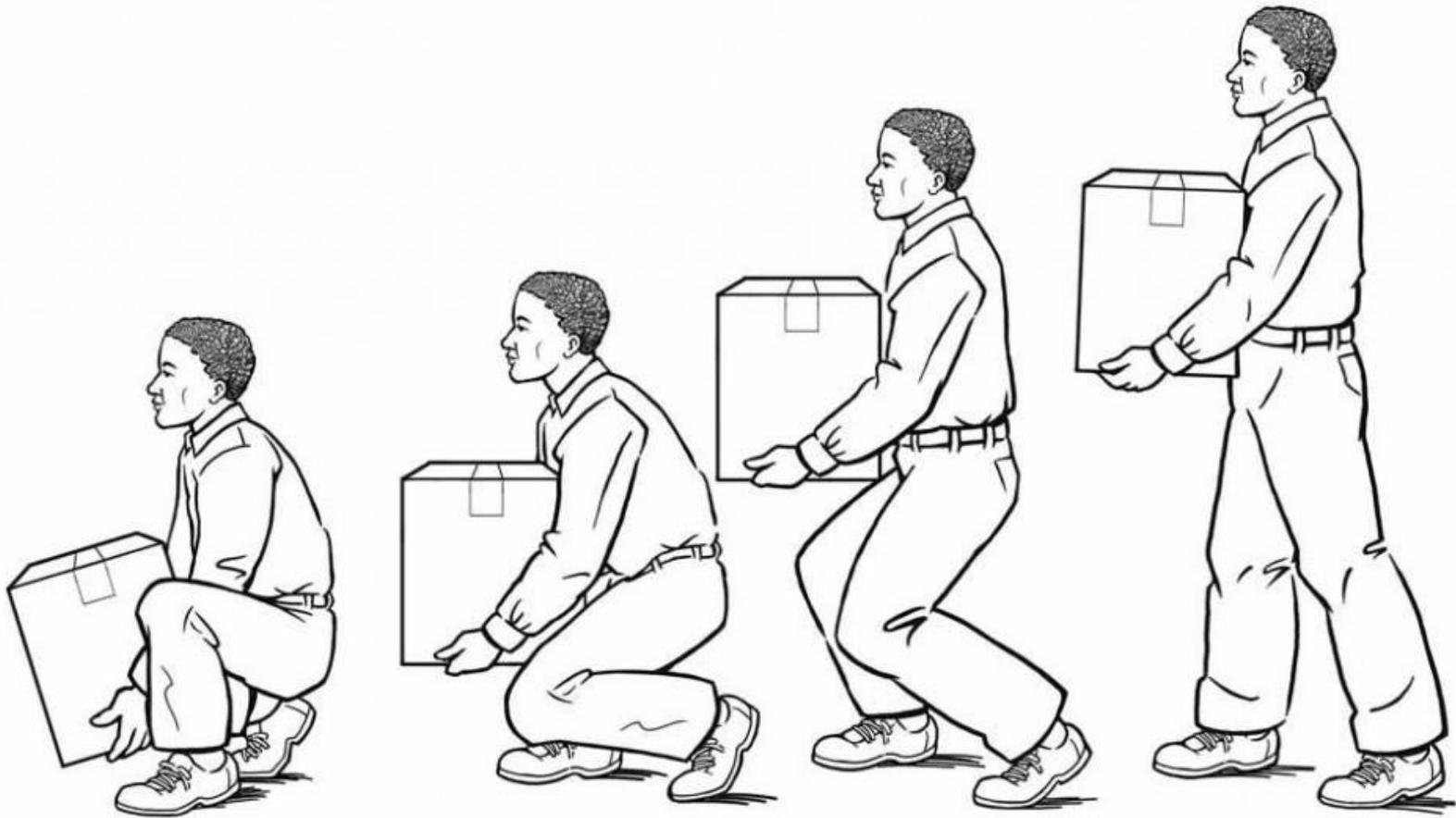


Lifting Mechanics

- ▶ Make sure your path is dry and clear
 - ▶ Stand close to object with feet staggered and shoulder-width apart
 - ▶ Squat down to be as close to the object as possible
 - ▶ Grasp handles, sides, or bottom of object
 - ▶ Lift with your legs while keeping object close to your chest
 - ▶ Make turns with your feet. **DO NOT TWIST WITH YOUR BACK!!**
 - ▶ Remember to ask for assistance with heavy or cumbersome objects
- 

Use of Power Muscles

- ▶ Abdominal Tension
 - Feel like you're going to resist a body check
- ▶ Gluteal Muscles
 - Bend at the hips and squeeze your buttocks as you stand
- ▶ Core Stability
 - Strengthen Inner Core muscles to increase stability of Lower Spine

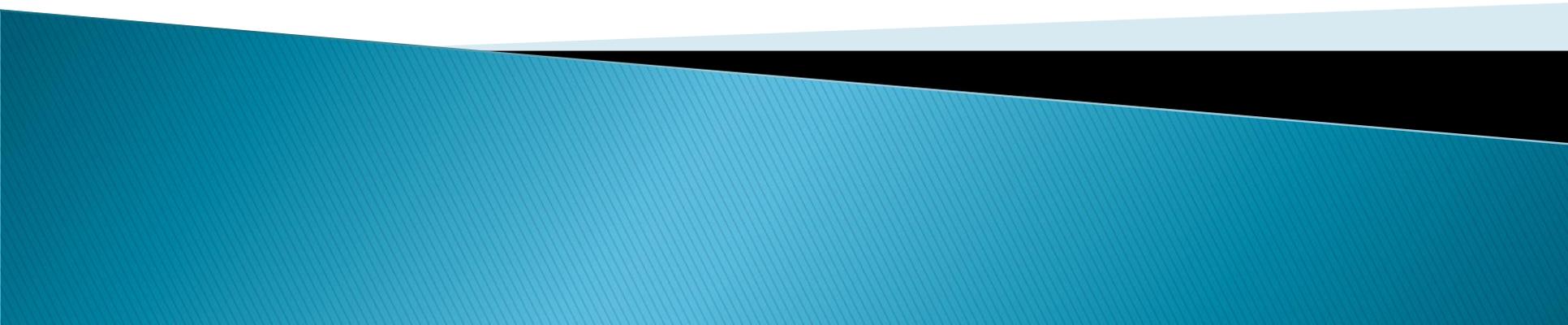




Load Sharing

- ▶ Try your best to do any activity with both sides of the body
 - i.e. lift with both arms, repetitive movements with both hands, lift from both sides of an object
- ▶ Keeps tissue from exceeding it's stress-threshold
- ▶ A little more time consuming, but practice makes perfect

Questions?

A decorative graphic at the bottom of the slide consisting of a dark blue wavy shape on the left, a black horizontal bar, and a light blue wavy shape on the right.