



Ergonomics Training



For the field, laboratory, and office

Environmental Health & Safety

- Ergonomics injuries account for 35% of all worker's compensation injuries in the United States. The goal of this tutorial is to identify injuries common to employees who work in the Physical Plant, an office, and/or laboratory setting.





Musculoskeletal/cumulative Trauma Disorders

- A musculoskeletal disorder is discomfort of the muscles, ligaments, tendons, joints or nerves which could include strain, sprain, or inflammation which can accumulate over time.
- Microtrauma can heal over time, but if we continuously repeat the trauma faster than the healing process can work, an MSD/CT injury will occur.





Symptoms of Musculoskeletal Disorders

MSDs

Signs

- Decreased range of motion
- Deformity
- Decreased grip strength
- Loss of muscle function



Symptoms

- Pain
- Numbness
- Tingling
- Burning
- Cramping
- Stiffness



Examples of injuries we could face:



- Back, neck, wrist strains from lifting heavy objects, sitting for long periods, and typing.
- Strains in the back from standing for long periods of time
- Loss of grip or feeling in hands from operating heavy equipment



Why do we care?



- A 2018 study in the U.S. found that ergonomic improvements resulted in:
 - 75% reduction in lost workdays
 - 48% decrease in employee turnover

MSD/CT injuries can be controlled through ergonomic interventions!

Ergonomic Risk Factors

- These 6 ergonomic risk factors should be avoided when possible
 - Note: many situations will expose you to more than one risk factor at a time.





Ways to reduce risk injury

- Change the way you work
- Change the environment in which you work
- Use equipment to aid in tasks





Change how you work:

- Lift Heavy objects with your knees, not back
- Transport heavy objects with a cart
- Place heavy objects on shelves knee to shoulder height to avoid lifting from levels too high or too low

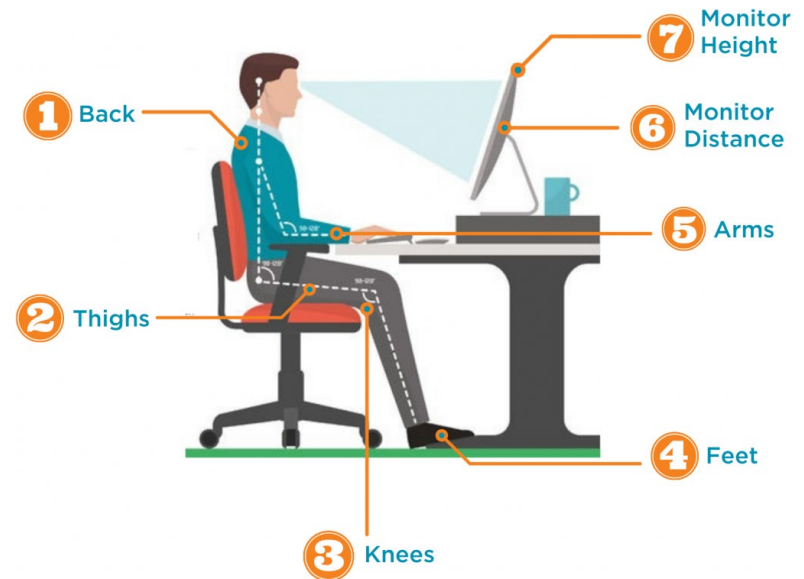




Change how you work:

- Check your posture throughout the day, make sure to keep posture neutral
- Stand and stretch every hour when sitting at a desk for prolonged periods
- Take multiple breaks when completing repetitive actions
- Use stools at lab benches to avoid prolonged standing

Office Ergonomics: Seven Points to Look At



Equipment that supports workplace ergonomics



Adjustable
Lab Stool



Office chair with back and neck support



Hand
Cart



Lift



Anti Vibration
gloves for
operating heavy
equipment



Summary



- Musculoskeletal Injury risk can be reduced with method changes, equipment use, and environmental changes. Work smarter, not harder!

