



# Ergonomics – The Basics

Many people assume ergonomics only applies to using a computer or how you lift and move materials. Ergonomic risk factors are present in everything we do, at work and at home. It is important to understand these factors, identify them in the tasks we perform, and take steps to change how we work to reduce or eliminate them.

## Know and Recognize the Ergonomic Risk Factors

Job activities involving any of the ergonomic risk factors below, either alone or especially in combination, contribute to an increased risk of injury:

1. Awkward postures – Non-neutral positions that put our bodies at a mechanical disadvantage while we work
2. Repetitive motion – The same or similar movement is performed frequently
3. Static postures – Maintaining the same posture for extended periods of time
4. Forceful exertion – Using a high level of physical effort to perform a task
5. Static exertion – Holding the same posture for extended periods while applying force
6. Compression or contact stress – Pressure between hard or sharp objects and the soft tissues of the body
7. Lighting – Inadequate lighting or significant glare (contributes to eye strain)
8. Noise – High noise levels, based on decibel level and duration, can result in hearing damage
9. Vibration – Overexposure to vibration from tools or equipment increases risk of injury
10. Cold Temperatures – Decreases the flexibility of our muscles as well as our touch sensitivity as we work



## Avoid Ergonomic Risk Factors

1. Complete ergonomic injury prevention training. See the EH&S Department or the UC Training Center for scheduling the training
2. Maintain comfortable, neutral body postures during daily activities
3. Reduce the frequency of performing the same motions, alternate between tasks to use different muscles. Take short breaks every 1-2 hours to reduce muscle fatigue.
4. Take breaks and/or routinely change your posture.
5. Use the right tools for the job: tools designed to help you maintain neutral body postures by reducing reaching and awkward wrist or arm positions. Avoid forceful pinching or gripping. Use tools with comfortable handles and controls.
6. Arrange your workstation to reduce or eliminate awkward postures such as over-reaching, bending, or twisting.
7. Store only light-weight items above shoulder height. Use a step stool or stepladder to reach items at this height.

8. Store items that are heavy or awkward to lift on shelves that are positioned at waist height.
9. Wear the appropriate personal protective equipment, such as hearing protection devices and vibration absorbing gloves, when indicated.
10. Reduce contact stress by rounding or padding any square edges of work surfaces where your body is in continuous and/or repeated contact with the edge.
11. Use material handling devices such as carts, hand trucks, and dollies to reduce muscle fatigue.
12. Lift safely – review the Code of Safe Practice regarding Material Handling – Safe Lifting & Moving Materials
13. Contact the EH&S Department to schedule an ergonomic evaluation or for assistance with your workstation.