

## Ergonomics Program

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### 1. Program Description

The purpose of the UC Irvine Ergonomics Program is to prevent symptoms due to overuse and poor positioning of employees and workstation equipment. The aim is to also reduce costs to the University, associated with repetitive motion injuries.

This is accomplished through a combination of ergonomic strategy planning in office design stages, workplace Ergonomics training, evaluation of workstations and work practices, and the implementation of ergonomic control strategies.

### 2. Scope

The Ergonomics Program applies to all UC Irvine employees whose job functions have the potential for work related injuries and disorders. Certain aspects of campus job tasks and work environments possess risk factors that may contribute to injury or disability. Through a proper ergonomic assessment, potential injuries and disorders may be reduced, prevented, and even eliminated.

The table below illustrates the relationship between work settings, job tasks, risk factors, and parts of the body that may be affected.

<b>Work Environment</b>	<b>Job Tasks</b>	<b>Risk Factors</b>	<b>Affected Part of the Body</b>
<b>Office and Computer</b>	Work processing (typing), data entry and internet use (mouse use)	Awkward and static postures, frequency, duration, force	Hands, wrists, arms, neck, shoulders, back
<b>Manual Material Handling</b>	Carrying and transporting heavy materials	Awkward postures, heavy exertion, force	Back, arms, shoulders, legs
<b>Laboratory</b>	Pipette use, microscope use, standing work	Awkward and static postures, frequency, duration	Hands, arms, neck, back, legs

### 3. Definitions

- Anthropometry: Measurement of the human individual referring to the physical properties of the human body, primarily dimensional descriptors of body size and shape.
- Ergonomics: The study of the relationship between people, their work and their physical work environment. The major goal of ergonomics is to fit the job to the individual and promote healthy and safe work practices.
- Cumulative Trauma Disorder (CTD): Excessive wear and tear on tendons, muscles and sensitive nerve tissue caused by continuous use over an extended period of time. CTDs can develop from improper work positioning, repetition or force.
- Musculoskeletal Disorder (MSD): An injury or illness of the soft tissues of the upper extremity, shoulders and neck, lower back, and lower extremity that is primarily caused or exacerbated by workplace risk factors, such as sustained and repeated exertions or awkward postures and manipulations. (Examples include: tendonitis, epicondylitis, rotator cuff syndrome, low- back pain.)

- Repetitive Stress Injury (RSI): Also known as repetitive stress injuries, a RSI is a type of stress injury that results from repetitive motions such as frequent bending or sustained awkward positioning performed over extended periods of time without allowing for sufficient rest. Examples of RSI are medical conditions resulting from repeated use of a body part.
  
- Risk Factors: Poor workplace designs can present stressors called risk factors. These risk factors may include: Repetition – the number of motions or movements that are performed per cycle or per shift. Force – the power of the muscles used to produce motion in order to perform necessary activities such as lifting, grasping, pinching, pushing, etc. Extreme Postures – when muscles are required to work at a level near or at their maximum capacity.

#### 4. Responsibilities

**Work Unit Specific Supervisor/ Department:** It is the responsibility of each department head and/or supervisor to ensure potential MSD, CTD, and RSI are minimized and eliminated through the following:

Review design and furniture policies and requirements to apply to ergonomic workspace design and injury prevention program efforts:

- Ergonomic Furniture & Office Design Guidelines: Office Desks/Work Surfaces and Task Chairs
- Ergonomic Studies: Custodial Project, Dining & Hospitality Project
- Be prepared to provide resources of ergonomic solutions and controls
- Consult with EH&S on safe and ergonomic workspace design of office, labs and other facilities
- Request risk assessment of job task
- Encourage employees to take assigned Ergonomic eCourses via UC Learning Center ([www.uclc.uci.edu](http://www.uclc.uci.edu))
- Facilitate early reporting of work-related discomfort and pain by employees. Use the on-line form to report an injury or an illness, <https://www.ehs.uci.edu/forms/report-injury/index.php>.

**Employees:** It is the responsibility of UC Irvine employees to access proper ergonomics training to improve their work practices by:

Completing assigned Ergonomics training via UC Learning Center ([www.uclc.uci.edu](http://www.uclc.uci.edu))

Being diligent in implementing self-assessment results and action lists by making adjustments to the workspace, equipment and work practices.

**Environmental Health and Safety:** It is the responsibility of EH&S to manage, implement, evaluate, and monitor the ergonomics program:

Support the University regarding ergonomics issues through established policies, resources and services.

Assess the nature and extent of risk factors related to ergonomics, in different tasks performed by employees, and workspace design where tasks are performed

Recommend methods of minimizing or controlling the hazards

## 5. Program Components

### 5.1 Planning

- Integration of ergonomics is essential to prevent and reduce risk factors affecting employees while planning and designing buildings, offices, cubicles, lab spaces and a variety of other work areas.
  - Ergonomic Furniture & Office Design guidelines: [Office Desks/Work Surfaces](#) and [Task Chairs](#)
  - Ergonomic Studies: [Custodial Project](#), [Dining & Hospitality Project](#)
- The procurement of adjustable and sustainable equipment and furniture has been vetted by UC Ergonomists to accommodate various anthropometry in order to ensure fit and support for individual employees. For more information on UCI Pre-Approved Ergonomic Equipment, visit:
  - [Ergonomic Product Purchasing Guidelines](#)
  - [UCIBuy](#) – Ergonomics Furniture and Accessories tab
  - [Purchasing Recommendations for Ergonomic Laboratory Equipment](#)
- Fiscal planning for ergonomic designs and adjustable equipment in the build stages minimizes costly redesign and retrofit and possibly Workers' Compensation costs to the University.
- Careful consideration must be made of employee job functions, work schedules, and workflow to reduce repetitive motions and incorporate breaks for employees' well-being.

### 5.2 Prevention

1. **Online Ergonomics training** is available for both office and laboratory environments through UC Learning Center ([www.uclc.uci.edu](http://www.uclc.uci.edu)).
2. **Ergonomics Self-Assessment** provides initial intervention for employees to make changes to their own workspace and work practices.
3. **On-Site/Virtual Evaluation and Worksite Audit** may be requested by employees, supervisors, or department heads
  - EH&S to conduct an ergonomic evaluation based on observations that include:
    - Posture and body mechanics
    - Equipment used (mouse, keyboard, pipettes, microscope, etc.)

- Work environment including workspace, access, lighting and glare
- Rate and repetition of tasks or job processes
- Other employee practices that may be a contributing factor (behavioral habits)
- EH&S to provide written documentation for eliminating or reducing employee's ergonomic risk factors to the employee and their supervisor.

The table below list resources for each prevention step as listed above:

<b>Work Environment</b>	<b>Step One: Register and Access On-line Trainings in UC Learning Center</b>	<b>Step Two: Conduct a Self-Assessment</b>	<b>Step Three: Request On-site/Virtual Ergonomics Evaluation</b>
<b>Office &amp; Computer</b>	Ergonomics - Computer and Office <a href="#">eCourse</a>	Built in the section in Ergonomics - Computer and Office eCourse	Individual employees to complete and submit the <a href="#">Department Notification online form</a>
<b>Manual and Material Handling</b>	Back Injury Prevention and Manual Material Handling <a href="#">eCourse</a>	<a href="#">Materials Handling Checklist (.pdf)</a>	Send request for assessment of material handling tasks per employee or group via <a href="mailto:safety@uci.edu">safety@uci.edu</a>
<b>Laboratory</b>	Laboratory Ergonomics <a href="#">eCourse</a>	<a href="#">Lab Workspace Evaluation Checklist (.pdf)</a>	Send request for assessment of laboratory tasks per employee or lab group via <a href="mailto:safety@uci.edu">safety@uci.edu</a>

### 5.3 Implementation of Ergonomics Recommendations

- There are two general approaches to controlling ergonomic risks:
  - Engineering Controls - Changes are made to the workstations, tools, and/or machinery that alter the physical composition of area or process.
  - Administrative or Work Practice Controls - Changes are made to regulate exposure without making physical changes to the area or process; for example, taking frequent breaks and job rotations.

- Timely implementation of ergonomic recommendations help alleviate issues and reduce risks in the workplace. Ergonomic recommendations are to be procured through departmental funding and approval processes. Departments may acquire recommended equipment through new purchases or supply surplus.
- For more information on UCI Pre-Approved Ergonomic Equipment, visit the following:
  - [Ergonomic Product Purchasing Guidelines](#)
  - [UCIBuy](#) – Ergonomics Furniture and Accessories tab
  - [Purchasing Recommendations for Ergonomic Laboratory Equipment](#)

## 6. Reporting Requirements

- If an employee experiences any signs or symptoms of musculoskeletal disorders or repetitive stress injury, the employee is to report their symptoms to their supervisor. Use the on-line form to report an injury or an illness via <https://www.ehs.uci.edu/forms/report-injury/index.php>
- For questions or concerns about reporting a work-related injury or illness please contact the Human Resources Workers' Compensation Unit via email at [wcdm@uci.edu](mailto:wcdm@uci.edu).

## 7. References

Cal/OSHA, Title 8 §5110, Repetitive Motion Injuries