

The Advantages of Ergonomics



Workers come in all different sizes. Ergonomics can help make the work more comfortable for the individual worker.

What is ergonomics?

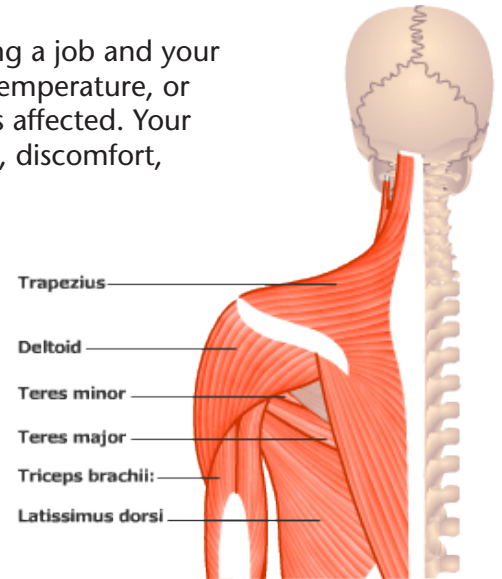
Ergonomics is designing a job to fit the worker so the work is safer and more efficient. Implementing **ergonomic solutions** can make employees more comfortable and increase productivity.

Why is ergonomics important?

Ergonomics is important because when you're doing a job and your body is stressed by an awkward posture, extreme temperature, or repeated movement your musculoskeletal system is affected. Your body may begin to have symptoms such as fatigue, discomfort, and pain, which can be the first signs of a musculoskeletal disorder.

What is a musculoskeletal disorder?

Musculoskeletal disorders (MSDs) are conditions that affect your body's muscles, joints, tendons, ligaments, and nerves. MSDs can develop over time or can occur immediately due to overload.



What are the advantages of ergonomics?

- 1. Increased savings**
 - Fewer injuries
 - More productive and sustainable employees
 - Fewer workers' compensation claims
 - The average **direct cost** of a workers compensation claim for an MSD is \$14,120 (Oregon OSHA 2007)
 - The **indirect costs** involved bring the total average claim cost to well over \$32,000
- 2. Fewer employees experiencing pain**
 - Implementing ergonomic improvements can reduce the risk factors that lead to discomfort.
- 3. Increased productivity**
 - Ergonomic improvements can reduce the **primary risk factors** for MSDs, so workers are more efficient, productive, and have greater job satisfaction.
- 4. Increased morale**
 - Attention to ergonomics can make employees feel valued because they know their employer is making their workplace safer.
- 5. Reduced absenteeism**
 - Ergonomics leads to healthy and pain-free workers who are more likely to be engaged and productive.

Solutions to common barriers

Barrier	Solution
It costs money.	Ergonomics doesn't have to be costly and can even save you money. <ul style="list-style-type: none">• Low cost measures for the office• Risk reduction techniques• Comprehensive ergonomics program
Staff isn't interested in learning a better way to do things.	There are several ways to get staff buy-in . <ul style="list-style-type: none">• Personalize ergonomics to their workstation, health, and satisfaction with the job.• Show them how it will make their work easier.• For healthcare workers, remind them that their patients will be more comfortable.
Management isn't interested in staff comfort or safety.	<ul style="list-style-type: none">• Focus on the business case for ergonomics.• Present the return on investment figures.• Use your safety committee, document your changes, and put a price saving on your work.

Ergonomic Solutions

STRESSED



BETTER

Bent awkward posture



Relaxed posture with less pressure on the back



Bent posture



Extension handle allows for natural posture



Seat is too small and provides minimal support



Higher back seat with lumbar support and more support under legs



Manual screw driver with bent wrist



Powered in-line screw driver allows for straight wrist



No neck support or padding under body



Creepers get worker off floor and provides neck and shoulders support



Bent posture and extended reach



Tilt table brings work within reach



Ergonomics Information and Resources

Direct costs are those directly associated with the claim and include:

- Medical treatment
- Prescription costs
- Insurance premiums

Indirect costs associated with the injury can include:

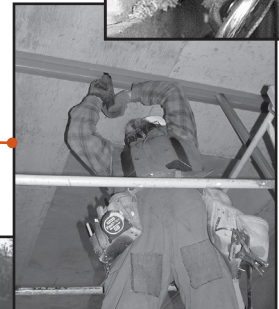
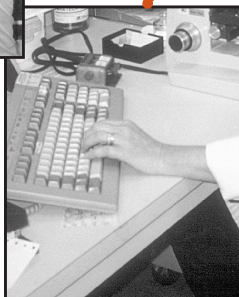
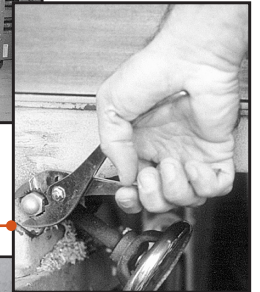
- Overtime due to staff coverage during absence of injured worker
- Accommodation for modified duty
- Increased absenteeism
- Decreased morale
- Legal and investigation costs
- Presenteeism: when an employee comes back to work too early and is less productive than in a healthy state
- Replacement worker costs
- Advertising and recruiting if employee doesn't return to work
- Orientation and training costs

"Indirect costs are estimated to be 3-5 times more expensive than the direct costs of that claim."

Primary risk factors

The following are factors for developing an MSD.

- Force
- Heaving lifting
- Push or pull
- Carrying
- Gripping
- Awkward or prolonged postures
- Repetitive activities
- Overhead work
- Contact stress
- Vibration
- Extreme temperatures



When is the work likely to result in an injury?

- When it's performed frequently
- When it's performed for a long period of time
- When the work is intense
- When there is a combination of several risk factors

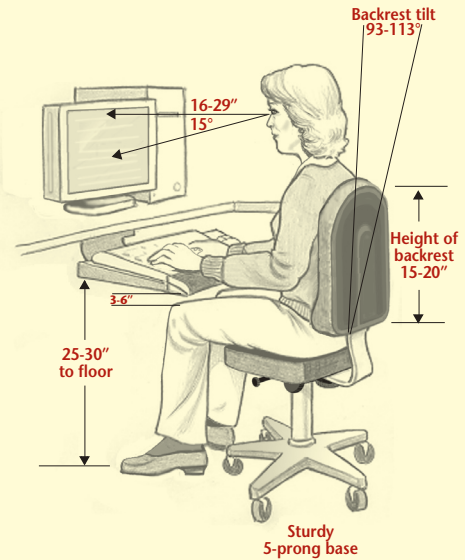


Low cost measures for the office

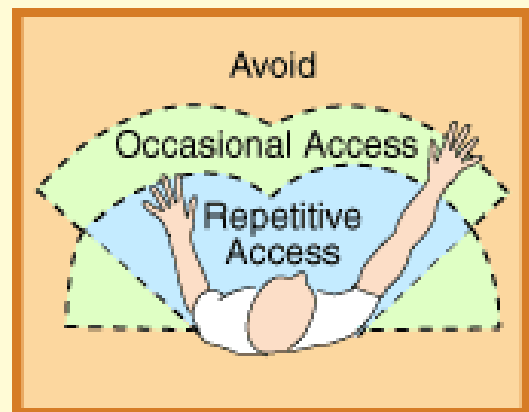
- Adjust your computer workstation to fit your body.



- Adjust your chair before starting your shift and again after lunch. Your body changes throughout the day and so should your environment.



- Arrange your workstation so that items you frequently use are within close reach.
- Use books to raise your computer monitor if necessary so you're looking at the top third of the screen.
- Place a pillow behind your back to create lumbar support if the back on your work chair won't adjust.



Awkward position



Natural position

- Place the document holder right next to the monitor so only your eyes move and not your head.
- Avoid holding the phone with your neck. This places a lot of stress on your neck muscles.
- Tape gauze around your pen to reduce your gripping pressure.
- Move your computer monitor away from the window or tape cardboard around it to reduce the glare, which can lead to eyestrain.

Risk reduction techniques

Job rotation

- Cross train workers so they can rotate jobs throughout the day.
- Change tasks often within your own job
(Example: type for an hour and then file for an hour).

Job hazard analysis

- Break each job up into smaller or different tasks.
- Determine the risk factors for each task.
- Determine how each task affects risk factors for the total job.

Select appropriate tools

- By attaching a handle extension, bending can be eliminated from many jobs.

Participatory ergonomics

- Enlist workers to brainstorm better ways to do their work.
- Have trained workers teach new staff.

Ergonomics training

- Educate staff on the risk factors for musculoskeletal disorders, and how ergonomics can make their work easier, more efficient, and safer.
- Train staff to identify job tasks that may present a risk and determine better ways to complete those tasks.



Comprehensive ergonomics program

A comprehensive ergonomics program can save your company money. It must include several elements.

- **Worker involvement** – workers must be involved in all aspects of the ergonomics program.
- **Management commitment** – leaders must make employee health and safety a priority.
- **Training** – employees need to be trained to understand ergonomics — why it's important and what is expected of them.
- **Sustainability** – your program should become part of your safety committee/safety meetings.
- **Evaluation** – maintain company statistics on annual MDS claims, direct and indirect costs, and number and outcomes of completed job analysis. This will help build your case when you present an issue to management and staff.

Getting staff buy-in

Q. How can I get staff buy-in?

A. Recognize those who are implementing the changes. Quantify the success, post your results, and then make it about the team.

Q. How do I know which staff to choose as leaders of my program?

A. Choose staff who are strong motivators, eager to learn new things, and well respected by other staff. Ask for volunteers.

Safety committee/safety meetings

Q. What is a safety committee/safety meeting?

A. A safety committee includes elected staff and selected management who work together to promote workplace health and safety. Safety meetings include all employee meetings to promote the safety and health of employees.

Q. How can a safety committee use ergonomics?

A. Safety committees and employees involved in safety meetings identify risk factors and suggest adjustments so employees can avoid injury and work more efficiently.

Q. What does a safety committee know about ergonomics?

A. Safety committees and safety meetings may be more effective by training members to recognize the ergonomic risk factors present in the work environment. Oregon OSHA offers [consultative services and ergonomics trainings](#).