Office of Occupational Health and Safety February Newsletter

ERGONOMICS

What is Ergonomics?

Ergonomics is an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely.
It aims to create a harmonious work environment that minimises the risk of musculoskeletal disorders (MSDs) and maximises productivity.

Types of Ergonomics

Ergonomics primarily falls into three dimensions.

Physical Ergonomics

Physical ergonomics deals with the physical interaction between humans and their environment. It focuses on human anatomy and uses anthropometric, physiological, and biomechanical characteristics to design products and environments that sync with physical human capabilities. This can include designing chairs that promote good posture, ensuring work materials are within easy reach to reduce strain.

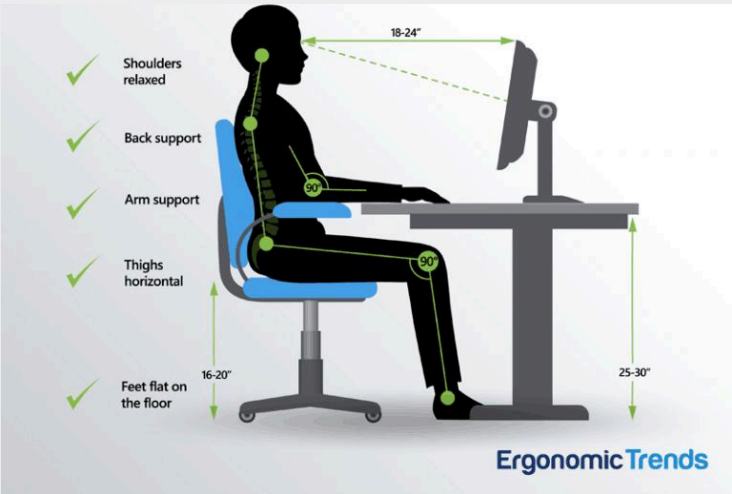
Cognitive Ergonomics

Cognitive ergonomics focuses on the mental processes involved in the interaction, such as perception, memory, reasoning, and motor response. It looks at optimising systems and environments to reduce cognitive overload and facilitate mental processes.

Organisational Ergonomics

Organisational ergonomics involves optimising sociotechnical systems, including their organisational structures, policies, and processes. It focuses on how workplace organisation affects human behaviour and can lead to improvements in health and well-being, productivity, and quality.

Proper Sitting Posture/Distance



Ways To Make Your Workstation Ergonomically Friendly

Chair

- Should support your spinal curves
- Be adjustable so that your feet rests flat on the floor or on a footrest and your thighs are parallel to the floor.
- Be fitted with an armrest.

Desk

- Under the desk, make sure there's clearance for your knees, thighs and feet.
- If the desk is too high and can't be adjusted, raise your chair.
- Use a footrest to support your feet as needed.
- If your desk has a hard edge, pad the edge or use a wrist rest.
- Don't store items under your desk.

Monitor Placement

- Keep your computer monitor at eye level to avoid straining your neck.
- Make sure you sit about an arm's length away from the screen.

Keyboard and mouse

- Place your mouse within easy reach and on the same surface as your keyboard.
- While typing or using your mouse, keep your wrists straight, your upper arms close to your body, and your hands at or slightly below the level of your elbows.

Why is Ergonomics Important?

Ergonomics is important for a multitude of reasons which includes well-being of individuals, efficiency, and economic considerations:

Health and Safety: Proper ergonomic design is vital to prevent repetitive strain injuries and musculoskeletal disorders, which can develop over time.

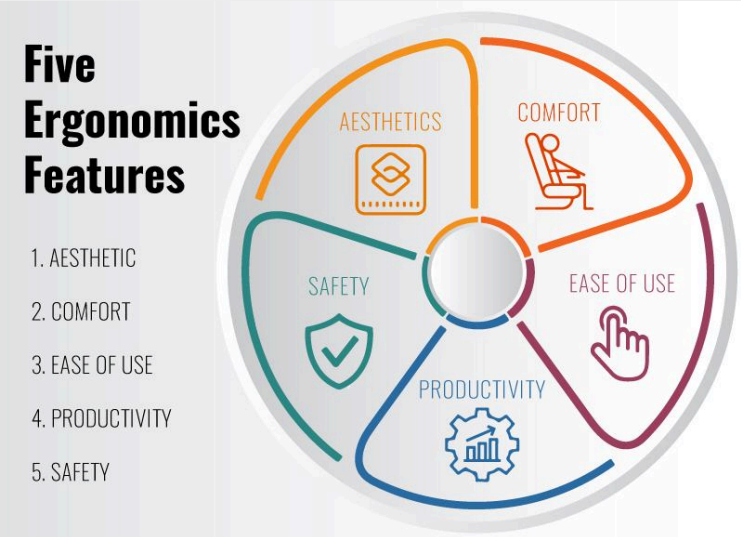
Comfort: Ergonomically designed workspaces and products are more comfortable to use as they accommodate the user's physical requirements and movements. Which minimises strain and discomfort.

Productivity and Efficiency: People tend to work more efficiently in a workspace that provides comfort and allows for natural movements.

Adaptability to Change: With technological advancements and changes in work practices, ergonomics ensures that workspaces evolve accordingly, supporting the integration of new technologies in a human-centred manner.

Economic Benefits: Investing in ergonomic furniture and equipment can save costs in the long term by reducing the number of work-related injuries and associated costs, such as medical expenses and lost productivity.

The Five Ergonomic Features To Always Keep In Mind



Common Injuries Caused by Poor Ergonomics

Musculoskeletal Disorders

One of the most prevalent injuries caused by poor ergonomics is musculoskeletal disorders (MSDs). These disorders affect the muscles, tendons, ligaments, nerves, along with other soft tissues of the body. Common MSDs include conditions such as tendonitis, bursitis, and muscle strains.

MSDs can manifest in various areas of the body, including the neck, shoulders, back, wrists, and hands. They can cause chronic pain, stiffness, weakness, and limited range of motion.

Carpal Tunnel Syndrome

Carpal tunnel syndrome is a specific type of musculoskeletal disorder that deserves special attention due to its prevalence and impact on employees well-being. It affects the hands and wrists and is often associated with repetitive tasks involving the use of keyboards.

This condition occurs when the median nerve, which runs through the carpal tunnel in the wrist, becomes compressed or irritated. The resulting symptoms include numbness, tingling, and pain in the hand and fingers.

Eye Strain

Due to the increasing reliance on digital devices in the workplace, eye strain has become a prevalent issue. Poor ergonomics, such as improper monitor placement, glare, and inadequate lighting, can strain the eyes and lead to a condition known as computer vision syndrome (CVS).

Symptoms of eye strain and CVS include eye fatigue, dryness, blurred vision, and headaches. Prolonged exposure to poor ergonomic conditions can result in long-term vision problems and decreased productivity.

Written & Compiled by Philbert Clarke
philbert.clarke@uog.edu.gy