

Understanding Ergonomics at Work (Part 1 of 5)

You may have heard of the term 'ergonomics'. This is sometimes referred to as 'human factors'. Not everyone really understands what ergonomics is, what it does, or how it affects people. This series of news items will help to answer these questions and to explain how understanding ergonomics can improve health and safety in your workplace.

It is aimed at anyone who has a duty to maintain and improve health and safety and who wants to gain an insight into ergonomics. It gives some examples of ergonomics problems and simple, effective advice on what can be done to solve them.

What is ergonomics?

Ergonomics is a science concerned with the 'fit' between people and their work. It puts people first, taking account of their capabilities and limitations. Ergonomics aims to make sure that tasks, equipment, information and the environment suit each worker.

- To assess the fit between a person and their work, ergonomists have to consider many aspects. These include:
 - the job being done and the demands on the worker
 - the equipment used (its size, shape, and how appropriate it is for the task)
 - the information used (how it is presented, accessed, and changed)
 - the physical environment (temperature, humidity, lighting, noise, vibration)
 - the social environment (such as teamwork and supportive management)

- Ergonomists consider all the physical aspects of a person, such as:
 - body size and shape
 - fitness and strength
 - posture
 - the senses, especially vision, hearing and touch
 - the stresses and strains on muscles, joints, nerves

- Ergonomists also consider the psychological aspects of a person, such as:
 - mental abilities
 - personality
 - knowledge
 - experience

By assessing these aspects of people, their jobs, equipment, and working environment and the interaction between them, ergonomists are able to design safe, effective and productive work systems.

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