Introduction to Ergonomics
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This training introduces you to Ergonomics and how it can keep you and your team well at work

You will learn:

1. What is ergonomics?
2. What are the ergonomic risk factors in the workplace?
3. Why we need ergonomics
4. Who is responsible for ergonomics?

What is Ergonomics?
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Session 1: What is Ergonomics?

Aim: To introduce the ergonomics approach to good job design

Outcome: To understand that **you** are at the centre of good job design

What is Ergonomics?
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What is Ergonomics?

Ergonomics also called Human Factors and is an evidence-based scientific discipline and profession that applies a systems approach to ensure there is a good “fit” between you, the job, the environment and equipment you use. Its aim is to reduce injury and illness plus enhance performance.

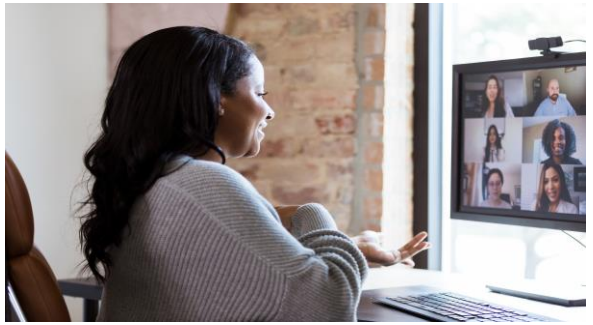
Further reading:

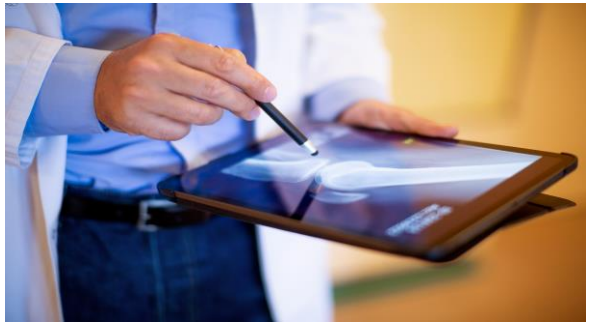
Implementing Human Factors in healthcare- patient safety first

What is Ergonomics? Working better together

You may have come across the term “ergonomics” in various areas such as:

- Physical: postures; load handling; repetitive movements
- Organisational: teamwork; policies; communication
- Cognitive: decision making; memory; interaction with IT





What is Ergonomics?

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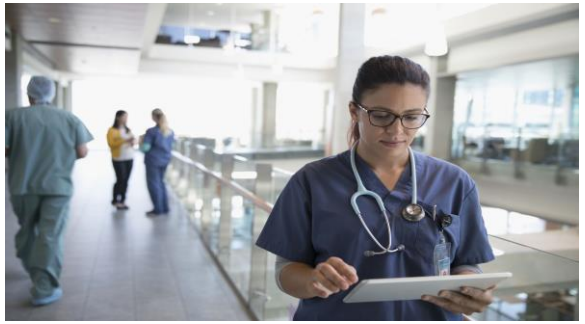
- **The Systems Approach**
- We all work in the healthcare system- which is responsible for delivering services that improve, maintain or restore the health of individuals and their communities.

- Within that system there is a complex set of inter-related activities, such as staff, software, spaces, equipment, patients, communities and buildings.



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The work environment is a complex set of systems, and the human body is a complex set of systems, we need to understand how these interact:

1. Ergonomic Risk Factors (risk factors related to the work environment
2. Individual Risk Factors (risk factors related to the individual themselves)

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Under the Management of Health and Safety at Work Regulations 1999, the minimum we must do is:

- identify what could cause injury or illness in the workplace (hazards) e.g. awkward posture
- decide how likely it is that someone could be harmed and how seriously (the risk)
- take action to eliminate the hazard, or if this isn't possible, control/reduce the risk
- Assessing risk is just one part of the overall process used to control risks in your workplace.

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- **Ergonomic Risk Factors:**
- The **task/work/job** itself should be planned to avoid stress and fatigue with regular breaks and changes of activity/posture.
- Your **equipment**, such as computer workstation or a piece of medical equipment should be fit for purpose and not cause an injury.
- The **working environment** may impact health and include: lighting, temperature, floor surface, noise and often space.

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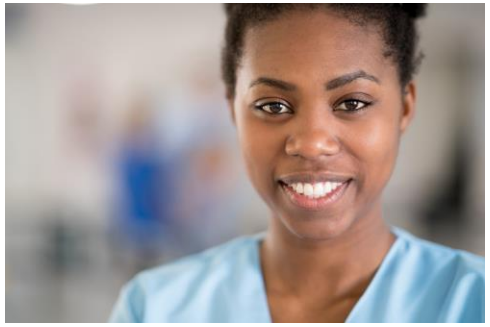
- **Individual risk factors:**

You are unique in how **you** do **your** job. Even when people do a similar job to yours, they might have a different physical build, such as taller or stronger or be newly qualified or have an underlying health condition.

Only **YOU** know all about your job, all the challenges, possible improvements and what works well.

An ergonomics process is about **you** suggesting how to support your wellbeing, or make your job easier and more efficient.



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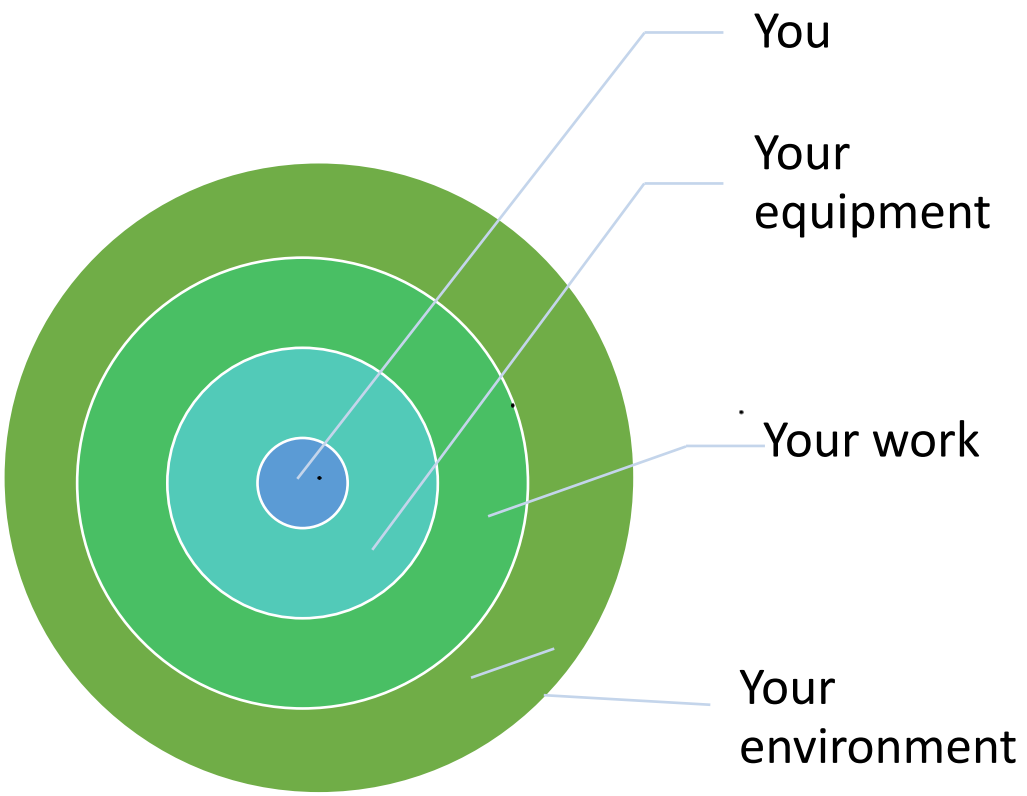
Session Summary

Ergonomics:

- is a human centred approach to design
- focuses on improving the job, the equipment and the environment
- every worker needs to be involved
- ergonomics aims to identify and minimise potential risk factors.



What are the ergonomic risk factors?
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Session 2: Ergonomic Risk in the Workplace

Aim: To look in more detail at common ergonomic risk factors

Outcome: To understand and begin to identify risk factors in your work area and work tasks

What are the ergonomic risk factors?
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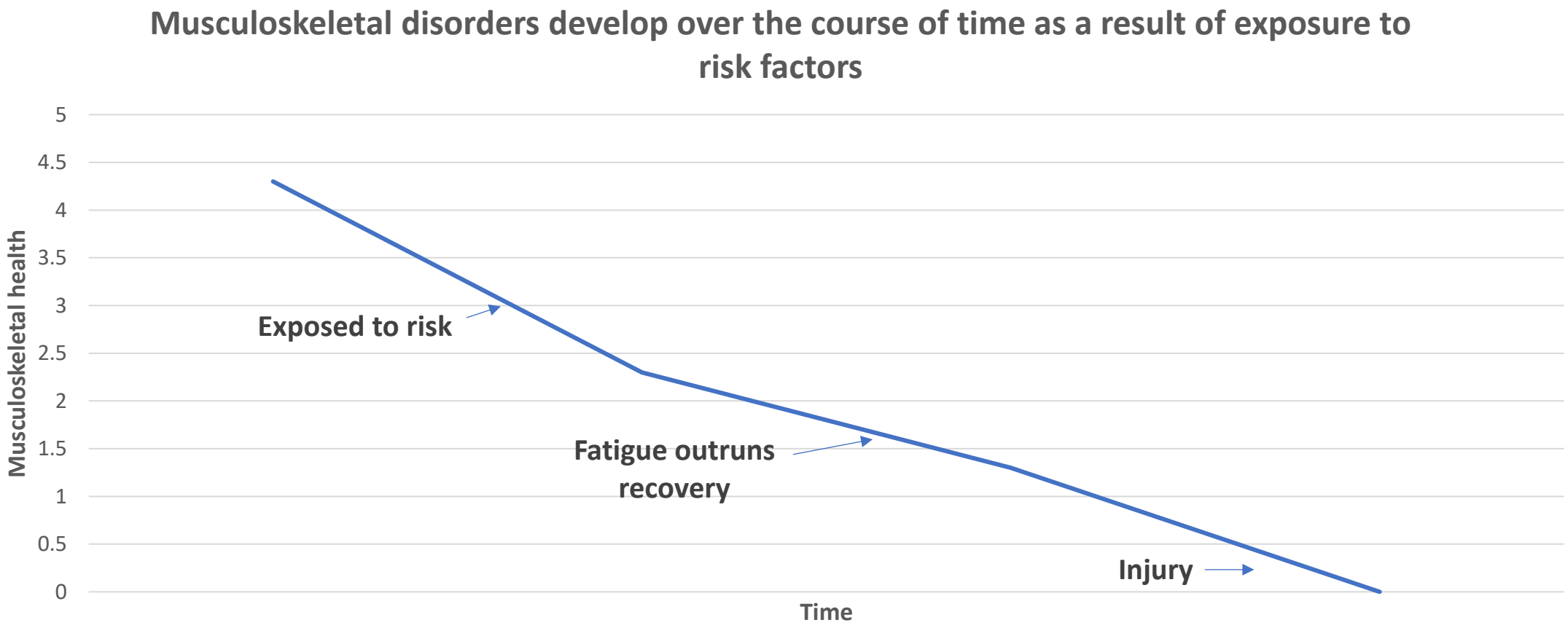

What are the ergonomic risk factors?
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- Injuries are rarely caused by a one off event such as bending down, high force or equipment failure
- Evidence shows that our aches and pains are most commonly cumulative in nature, as a result of prolonged and repetitive exposure to several risk factors
- Proactive ergonomics will reduce the risk of MSD’s- we need to reduce those risks

What are the ergonomic risk factors?
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To prevent workplace injuries, a risk assessment is a proactive tool to assess, reduce and control risk in the workplace.

Proactive ergonomics:

- Is implemented before an injury occurs
- Is viewed as a continuous improvement process (not a one-time program or event)
- Gets results

Reactive ergonomics:

- Waits for an injury to occur before being implemented
- Gets marginal results

What are the ergonomic risk factors?
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There are common groups of ergonomic factors which create risk. These are:

- Individual worker factors
- Equipment used
- Task/job related factor
- Environmental factors

Lets look at these risks in more detail

What are the ergonomic risk factors?
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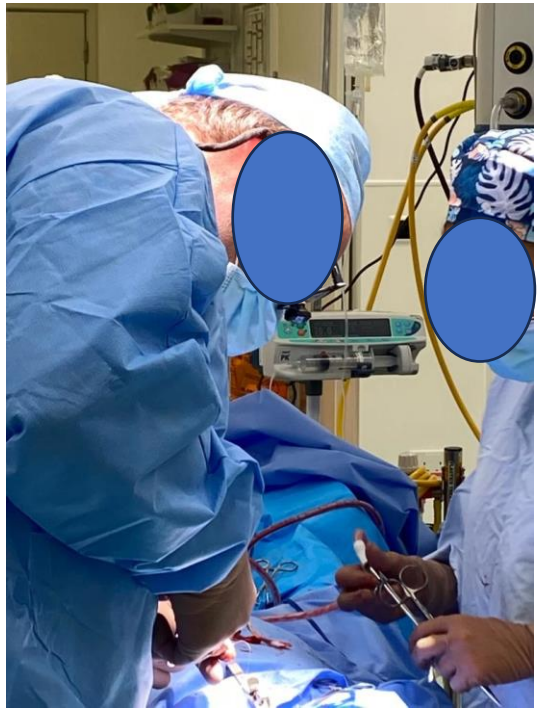
Think about your common work tasks, what are the risk factors?




What are the ergonomic risk factors?
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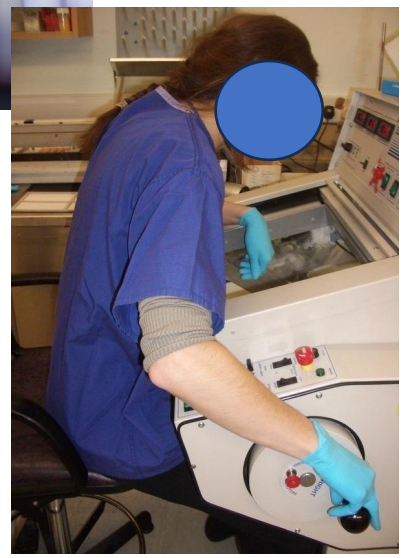
TASK/JOB related risk factors:

Repetitive movements

Highly repetitive work, can cause fatigue over time if you don't take opportunities to rest and recover

- After just 30 seconds rest and recovery, 50% of the muscle energy is replenished.
- After 60 seconds rest and recovery, 75% of the muscle energy is replenished.



What are the ergonomic risk factors?
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TASK/JOB- related risk factors

High Forces- e.g. heavy lifting or hand forces

Force can impact the body in several ways and lead to fatigue from:

- High forces
- Repetitive forces, or
- Static forces

The worst is when we apply these types of forces in combination

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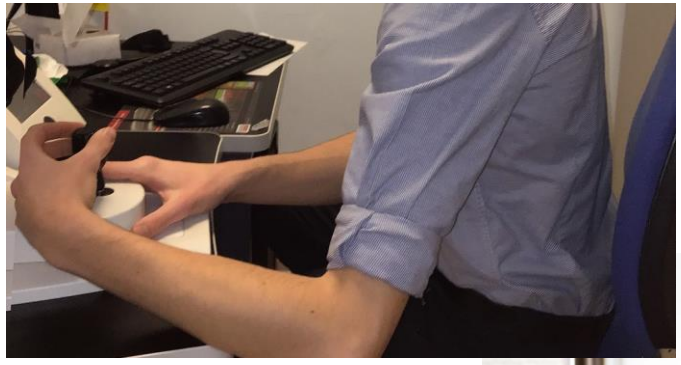
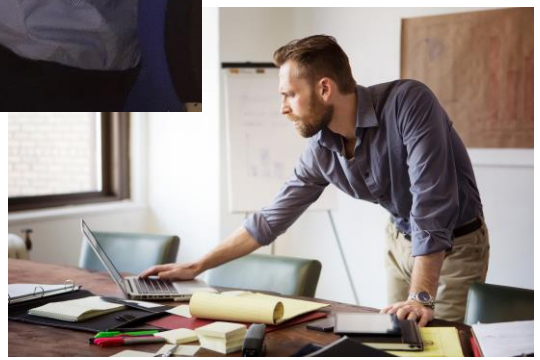
TASK/JOB- related risk factors

Postures- e.g. awkward and/or prolonged

These can put undue strain on joints and muscles, leading to pain and injury over time.

The body is designed to move and works best in a balanced/neutral position.





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ENVIRONMENT- related risk factors

Light/Noise/Temperature/Space/

Slips and trips risk

Your environment should enable you to work comfortably, efficiently and safely.

Sometimes it is harder to control these factors, but it still needs to be assessed/controlled

What are the ergonomic risk factors?
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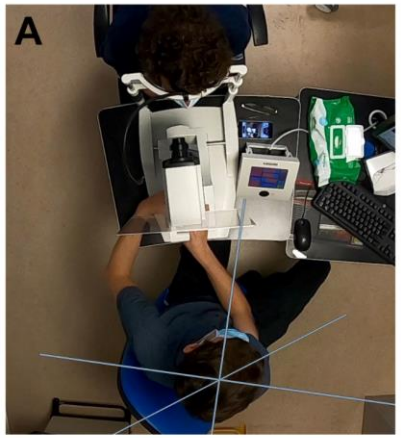
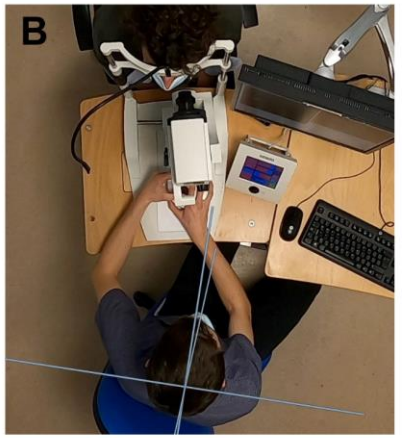
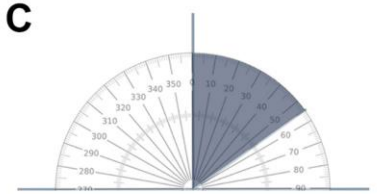
EQUIPMENT – related risk factors

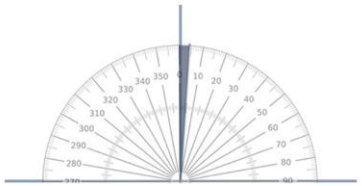
Design/maintenance/suitable/training

Your work equipment should be comfortable to use, with no strain or stress felt. Injuries often occur when there is excessive force used or an awkward posture is adopted or high repetition.









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INDIVIDUAL – related risk factors

Individual worker related factors can include:

- New employees, varying competence and skill levels
- Varying body sizes, e.g. height or reach
- People with different health status or disabilities
- Vulnerable groups e.g. older workers, new or expectant mothers
- Different attitudes/behaviours

What are the ergonomic risk factors?
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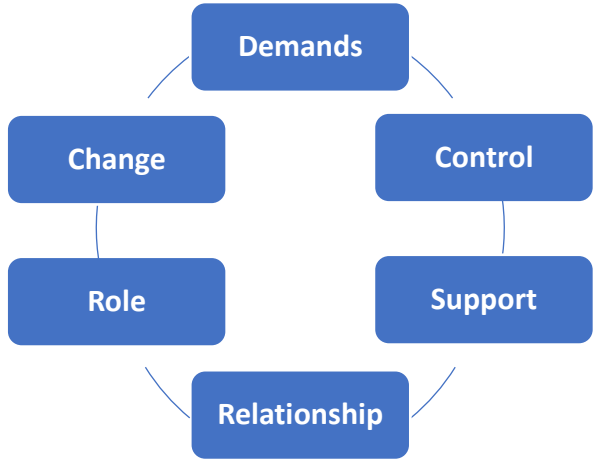
- **PSYCHOSOCIAL –** related risk factors

Psychosocial factors include the way you interact with the demands of your job and your work environment.

Have work changes that have impacted you been explained adequately and/or were you consulted about those changes?

Imposed changes without consultation have been shown to impact health negatively.



What are the ergonomic risk factors?
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Session Summary

Consider all the multiple risk factors- consider those tasks/jobs that have the highest risks

Workplace risks can involve any or each of these key risk factors, and are generally worst when numerous risk factors combine.

Why we need ergonomics
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Session 3: Why ergonomics matters

Aim: To highlight the key benefits of ergonomics

Outcome: To understand the role ergonomics has in your comfort, safety and performance

Why we need ergonomics
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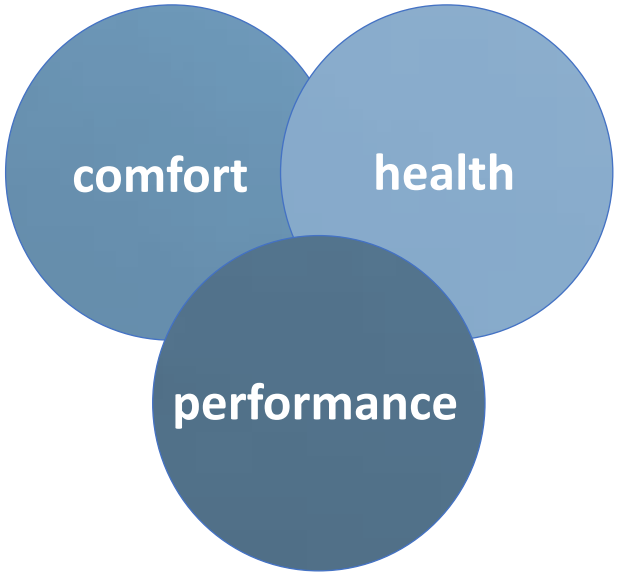
Incorporating ergonomic principles will create safer, healthier and more effective and productive workplaces and enhance your **comfort**, **health** and **performance**.

If we stay comfortable and avoid injury this will impact our overall health and ultimately our performance.

You are the best person to identify if an improvement may be useful.

Discuss these improvements with your line manager



Why we need ergonomics
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Session Summary

Ergonomics focusses on ensuring your equipment, work tasks and environment are best for you to do your job well.

Ergonomics maximises your comfort, safety, wellbeing and performance by considering you in the design of everyday things.

Who is responsible for ergonomics?
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Session 4: Who is responsible for ergonomics?

Aim: To enable ownership of ergonomics improvements

Outcome: To understand that good ergonomics interventions requires shared responsibility from all of us.

Who is responsible for ergonomics?
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It’s very normal to assume that somebody has thought about the ergonomics of your everyday lives.

You’ve probably used countless systems, products and environments so far today and probably haven’t experienced anything very wrong in their designs.

Who is responsible for ergonomics?
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- In this Trust, we **all** have responsibility for ergonomics
- **You** are the best person to identify if an improvement may be useful
- Discuss these improvements with your line manager

Who is responsible for workplace ergonomics?

- ✓ Your Line Manager
- ✓ You
- ✓ Senior Management
- ✓ Occupational Health
- ✓ Health and Safety
- ✓ Equipment Providers

Who is responsible for ergonomics?
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- **What can you do now?**

We need you

Think about the daily tasks/jobs you undertake and identify if these are involved:

- High levels of force (e.g. heavy lifting)
- Poor posture (fixed or not neutral)
- Repetition (same movements every few seconds)
- Exposure (e.g. inadequate breaks)
- Environment or Psychosocial risk factors

Share these with your line manager.

Who is responsible for ergonomics?
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Session Summary

Ergonomics is vital to ensure we stay well at work and the tasks we carry out do not cause injury to ourselves or others.

We all need to take responsibility and be involved. Set up a working group to look at high risk tasks.

Further information can be found on the Health and Safety Executive website Managing risks and risk assessment at work – Overview –HSE

Thank you for completing Introduction to Ergonomics

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