



Risk Assessment & Manual Handling

Risk Assessments

RISK ASSESSMENTS

Aim

- To understand the importance of assessing risks in the workplace

Objectives

- Know what a Risk Assessment is
- Know and understand the dangers that can occur on-site
- Understand how to prevent accidents

WHAT IS A RISK ASSESSMENT?

The Health and Safety Executive (HSE) define a risk assessment as:

“A careful examination of what, in your work, could cause harm to people so that you can weigh up whether you have taken enough precautions or should do more to prevent harm. Workers and others have a right to be protected from harm caused by a failure to take reasonable control measures”

So, a risk assessment is quite simply:

A technique for preventing accidents and ill health by helping people to think about what could go wrong and ways to prevent problems.

HAZARDS

To understand how a risk assessment works, it is important to understand the terms “**hazard**” and “**risk**”.

A HAZARD is anything that has the potential to cause harm.

Examples:

- Fire
- Electricity
- Sharp tools
- Noise
- Harmful substances
- Damaged working platforms
- Site transport

RISKS

A risk is the likelihood of a hazard causing harm.

Formal risk assessments must be carried out in every workplace. Those carrying out the assessment are usually specially trained people who are familiar with the task being assessed and health and safety practices.

HOW TO PREVENT AN ACCIDENT

There are always reasons why accidents occur. They do not just happen.

It is therefore essential that when carrying out a risk assessment:

1. Examine the workplace and all the activities that will take place, and assess what could go wrong.
2. Select safe control measures to prevent accidents from happening.
3. Implement health and safety measures and check them regularly to ensure that they remain effective.

FACTORS TO CONSIDER

- Degree of possible harm
- Likelihood of occurrence
- Number of persons at risk
- Frequency of exposure to risk
- Specific acts or regulations covering the work
- Type and effectiveness of protection / preventative measures already in place
- Identification of 'risk' workers e.g., new or temporary staff
- Improvements to be made to preventative measures

CONTROL MEASURES

Hazards in the workplace should be removed if possible. Sometimes, there is no alternative but to allow the hazard to remain. If this is the case it is important to reduce the risk.

How could this be done?

1. By placing barriers around the hazard.
2. By putting up warning signs to make people aware that there is a hazard.

HOW TO ASSESS WORKPLACE RISKS

- STEP 1: Identify the hazards
- STEP 2: Decide who might be harmed and how
- STEP 3: Evaluate the risks and decide on precautions
- STEP 4: Record your findings and implement them
- STEP 5: Review your assessment and update if necessary

Manual Handling

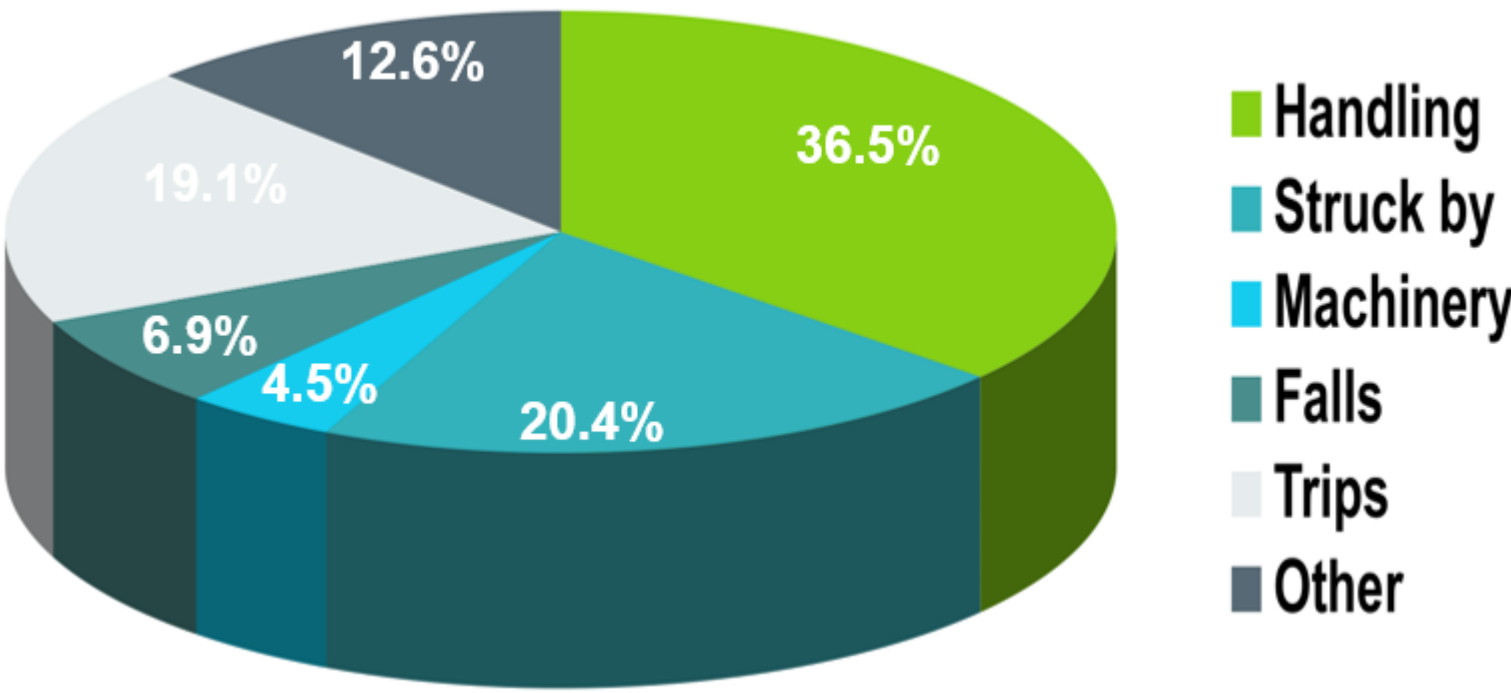
MANUAL HANDLING

- Lifting
- Putting Down
- Pushing
- Pulling
- Carrying
- Moving

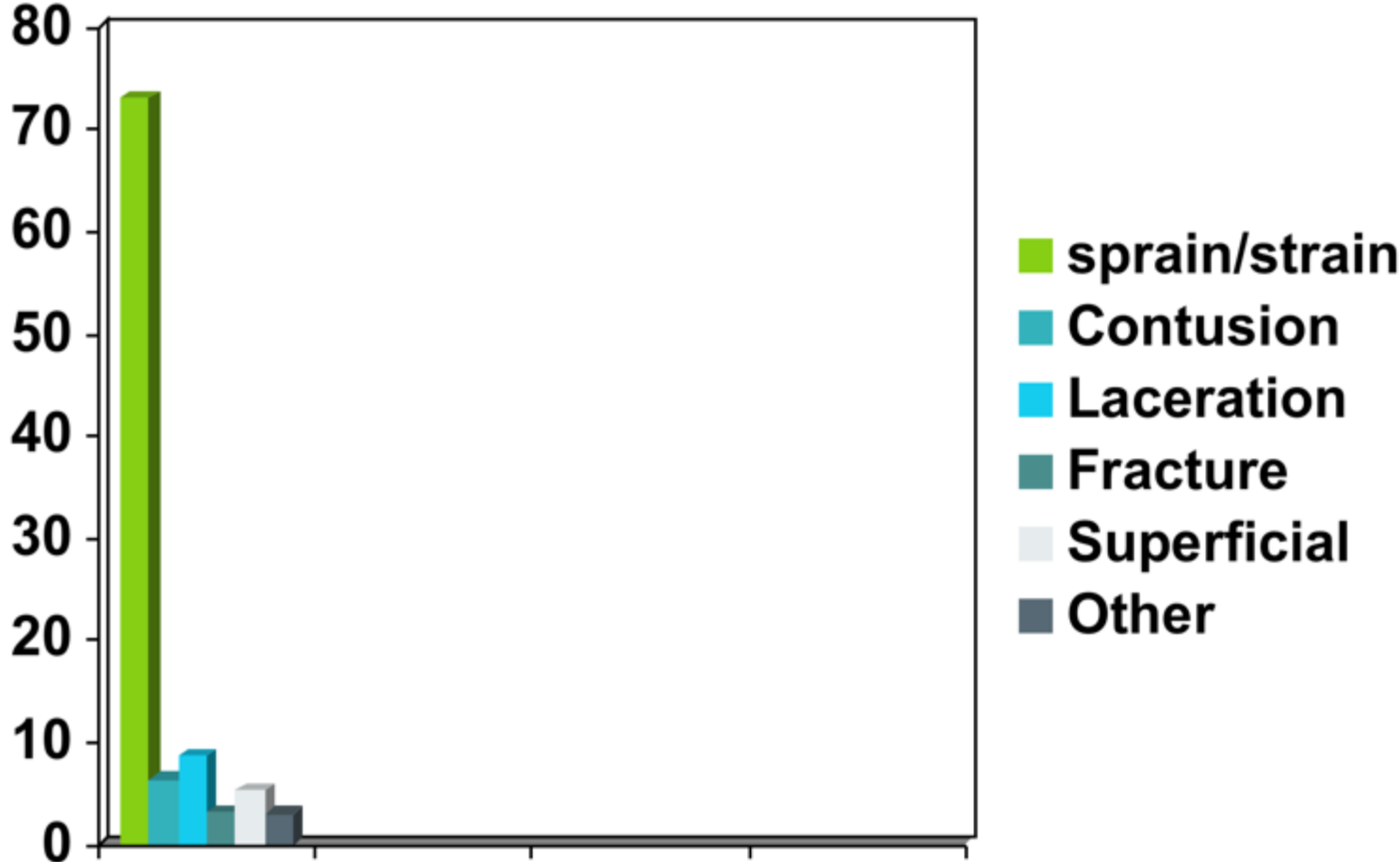
MANUAL HANDLING

- More than a quarter of accidents reported each year, are associated with manual handling.
- Manual handling can be defined as the transporting or supporting of loads by hand or bodily force.
- A load can be defined as a distinct moveable object.
- It is true that manual handling injuries are rarely fatal.
- 50% of handling accidents injure the back, these type of injuries occur throughout all sectors of industry.
- It is now widely accepted that an ergonomic approach will reduce the risk of injury as a result of manual handling.
- Ergonomics can be defined as fitting the job to the person rather than the person to the job.

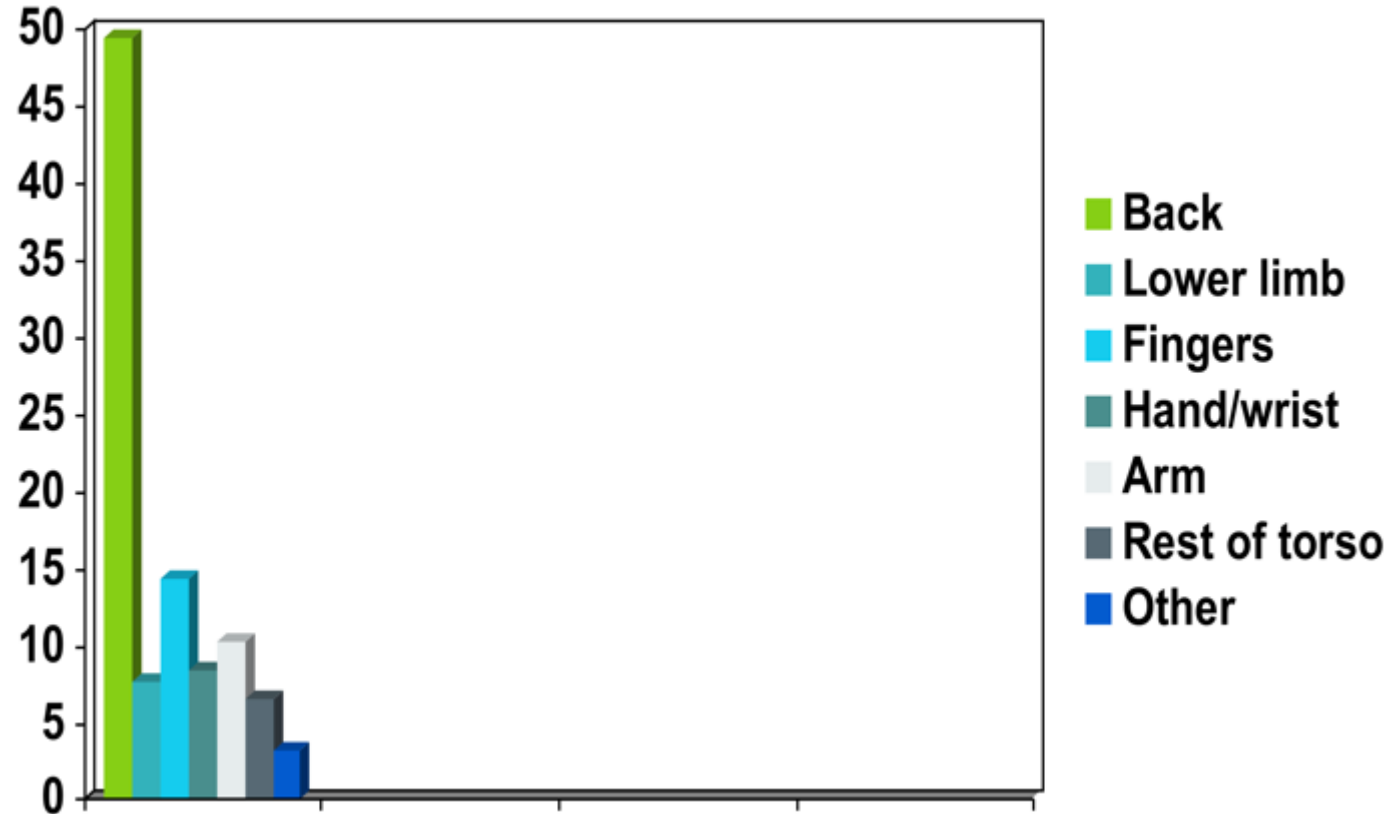
ACCIDENTS CAUSING INJURY



TYPES OF INJURY CAUSED BY HANDLING ACCIDENTS



LOCATIONS OF INJURY CAUSED BY HANDLING



REGULATIONS

- The Regulations require that where there is the possible risk to employees from the manual handling of loads, the employer should take the following measures, in this order:
 - 1 Avoid hazardous manual handling operations so far as is reasonably practicable.
 - 2 Assess any hazardous manual handling operation that cannot be avoided.
 - 3 Reduce the risk of injury so far as is reasonably practicable.
- Steps taken to avoid manual handling or reduce the risk of injury must be regularly checked to see if they are effective.
- The employers should provide their employees with health and safety information and training. This should include specific information and training on manual handling, injury risk and prevention, as part of the steps to reduce risks required by these regulations.

EMPLOYER'S OBLIGATIONS

Avoid the need for manual handling

If not

Avoid part of the handling task

If not

Mechanise/Automate the task

And

Carry out an assessment of each handling task

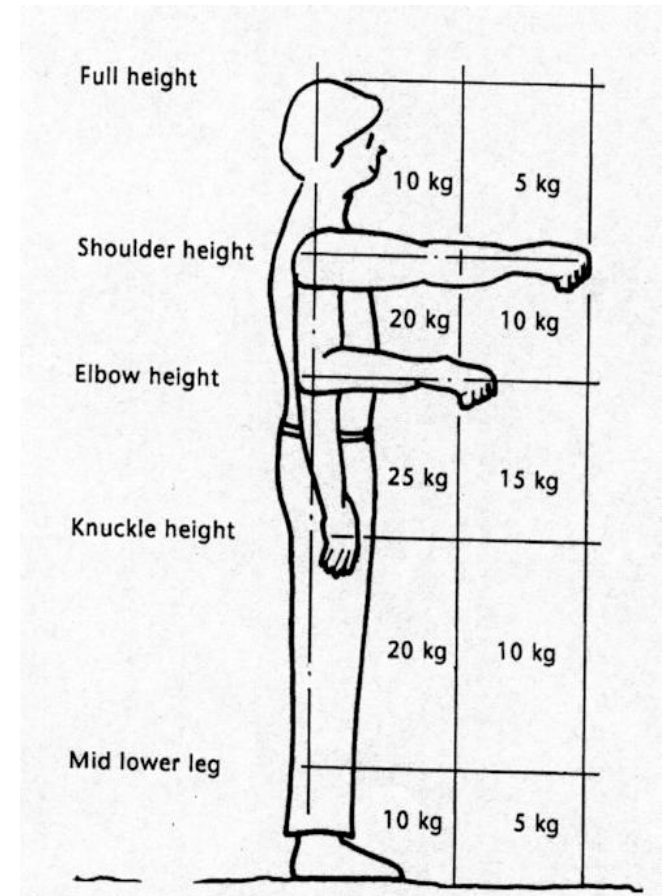


LIFTING & LOWERING GUIDELINES

- Guidelines for lifting and lowering are shown in the sketch. This shows guideline figures taking into consideration the vertical and horizontal position of the hands as they move during the handling operation.
- This assumes that the load can be easily grasped, with a good body position and in reasonable working conditions.

- **Note:**

If the hands enter more than one of the boxes during the lifting operation, the smallest weight figure should be used.



BEFORE LIFTING AN OBJECT

Before lifting an object, it is necessary to:

- a) Assess the characteristics of a load, i.e. the
 - Weight
 - Shape
 - Size

- b) Determine if assistance is required
 - Is the load too heavy to move alone?

- c) Assess the need for PPE
 - This will depend upon the load and how it is to be moved.

- d) Determine if your vision be obscured
 - Can you see where you are going?

BEFORE LIFTING LOADS

- Check your feet - get close to the job, stand square to the load, with your leading leg as far forward as comfortable, facing in the direction you're going to move the load.



- Keep it close to the body - the further away the load, the more stress on your lower back (up to times 10). Hold the load close to your body. It makes you more stable.



- Use your legs - if you need to bend down to pick something up, don't stoop, bend the legs as they will take the weight and not your back.



- Is it too big? Make sure the load is of a size that you can easily get a good grip, know where the centre of gravity is, know your limitations and keep the heaviest side close to your body.



OTHER CONSIDERATIONS

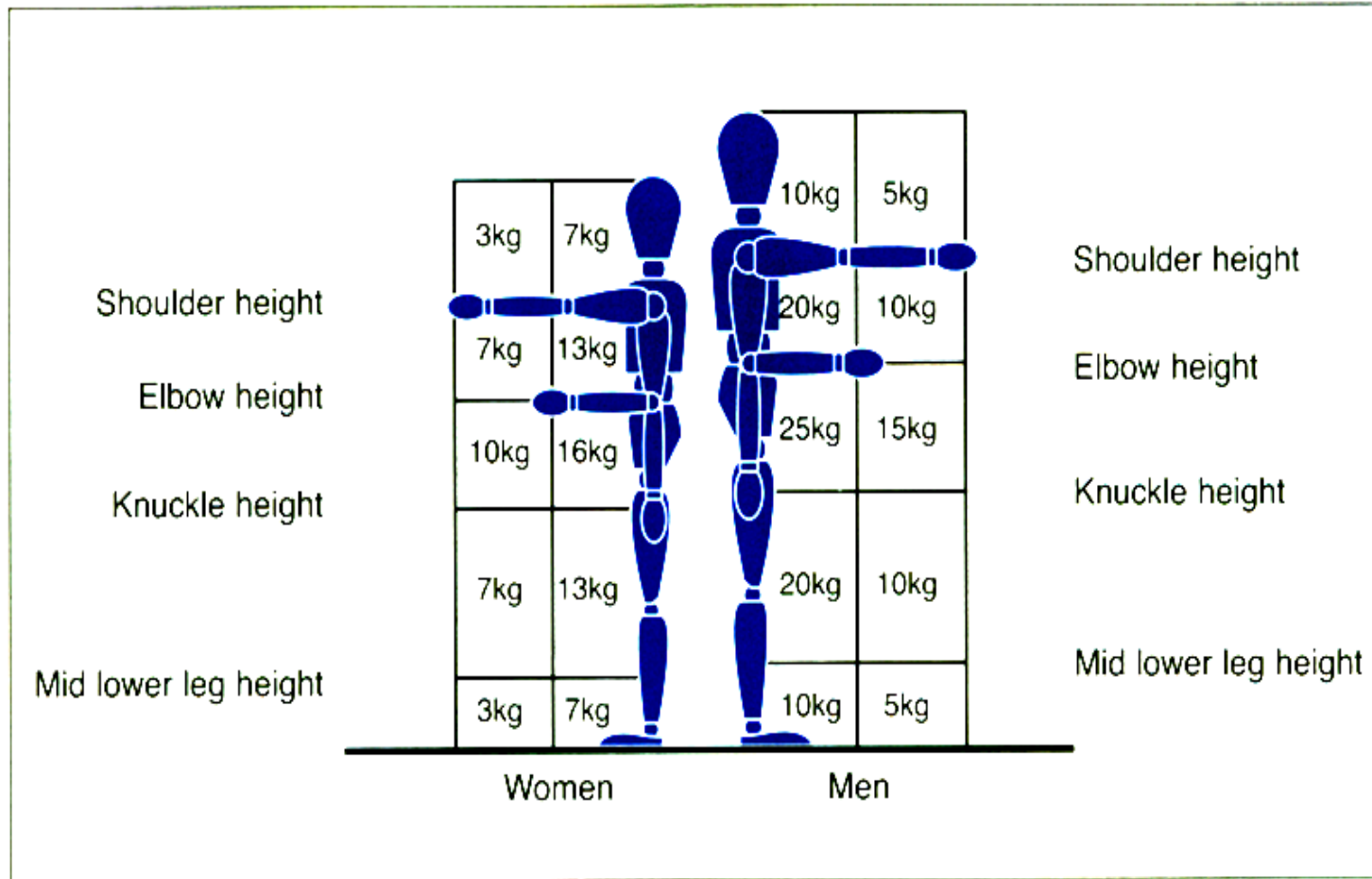
Not Too Far - If you can lift a load and carry it easily against your body, you will also be able to carry it safely. However, make sure you have good vision & don't carry the load too far, if more than 10 metres you will probably be using up all your energy in carrying the load and have none left to put it down safely.

How Much Weight? It is very difficult to give precise information on how much weight you can handle & carry safely, because people vary greatly in ability and strength, however at times people are reluctant to ask for help if the load is a little heavier than they can handle.

Don't Twist - You could hurt your back. Lift, carry & place down in the same direction if possible. If you have to put a load in an exact position, put it down first & then adjust it, when you are not taking the weight.

Slave To The Rhythm? Don't make the same movement too often as this can lead to repetitive strain injuries.

WEIGHT GUIDELINES



PROBLEMS TO LOOK FOR

Problems To Look For When Making An Assessment	Ways Of Reducing The Risk Of Injury
<i>Do the tasks involve:</i>	<i>Can you:</i>
Holding loads away from the body	Use a lifting aid
Twisting, stooping or reaching upwards?	Improve workplace layout to improve efficiency
Large vertical movement	Avoid lifting from floor level or above shoulder height
Long carrying distances	Reduce carrying distances
Strenuous pushing or pulling	Use a lifting aid?
Repetitive handling	Avoid repetitive handling
Insufficient rest or recovery time	Vary the work, allowing one set of muscles to rest

PROBLEMS TO LOOK FOR

Problems To Look For When Making An Assessment	Ways Of Reducing The Risk Of Injury
<i>Are the loads:</i>	<i>Can you make the load:</i>
Heavy or bulky	Lighter or less bulky
Difficult to grasp	Easier to grasp
Unstable or likely to move unpredictably	More stable
Harmful, e.g. sharp or hot	Less damaging to hold
Awkwardly stacked	If the load comes in from elsewhere, have you asked the supplier to help, e.g. provide handles or smaller packages

PROBLEMS TO LOOK FOR

Problems To Look For When Making An Assessment	Ways Of Reducing The Risk Of Injury
<i>The working environment, are there:</i>	<i>Can you:</i>
Constraints on posture	Remove obstructions to free movement
Bumpy, obstructed or slippery floors	Provide better flooring
Variations in levels	Avoid steps and steep ramps
Hot/cold/humid conditions	Prevent extremes of hot and cold
Poor lighting conditions	Improve lighting
Restrictions on movements or posture from clothes or PPE	Provide less restrictive protective clothing or PPE

PROBLEMS TO LOOK FOR

Problems To Look For When Making An Assessment	Ways Of Reducing The Risk Of Injury
<i>Individual capacity, does the job:</i>	<i>Can you:</i>
Require unusual capability, e.g. above-average height, strength or agility	Pay particular attention to those who have a physical strengths or weakness
Endanger those with a health problem or learning/physical disability	Pay particular attention to those with health problems or learning/physical disabilities
Endanger pregnant women	Take extra care of pregnant workers
Call for special information or training	Provide more information and training

PROBLEMS TO LOOK FOR

Problems To Look For When Making An Assessment	Ways Of Reducing The Risk Of Injury
<i>Handling aids and equipment:</i>	<i>Can you:</i>
Is the device the correct type for the job	Provide equipment that is more suitable for the task
Is it well maintained	Carryout planned preventive maintenance to prevent problems
Are the wheels of the device suited to the floor surface	Change the wheels, tyres and/or flooring so that equipment moves easily
Do the wheels run freely	Carryout maintenance
Are the handle grips in good order and comfortable	Provide better handles and handle grips
Are there any brakes If so, do they work	Make the brakes easier to use, reliable and effective
Is the device stamped with a safe working load logo	Can you provide information