

Manual Handling Training



Work Safe !
Home Safe !

Look out for others | Get involved | Think safety

Housekeeping

- Smoking



- Mobile Phones

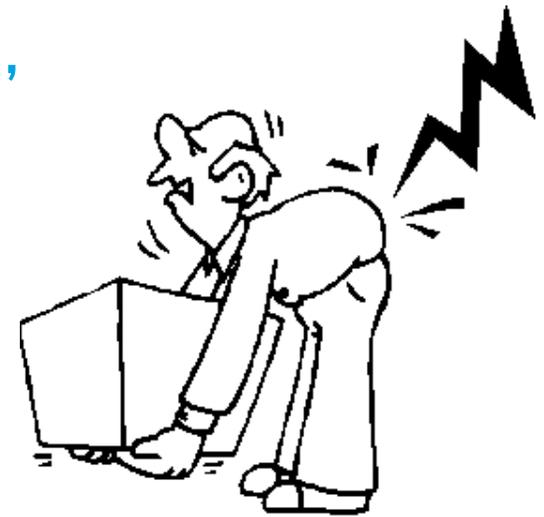


- Fire Alarm and Fire Exits



Objectives

- To explain the function of the human spine, and the reasons why handling injuries occur.
- To identify the hazards of 'top heavy bending'
- Causes of manual handling injury.
- How to lift safely.



Golden Rules

- If a load is too heavy for you to lift– then DON'T!
- Stop work and reassess the situation.
- You control the load at all times! The load does not control you!



Who has had a back injury?

- How did it happen?
- What was it like?
- How long were you off for?
- Do you still have any problems?

What is Manual Handling?

- Any thoughts?

Answer

“the moving or supporting of a load by hand or other bodily force”

- Includes: lifting or lowering, pushing or pulling, carrying, moving or the static support of a load



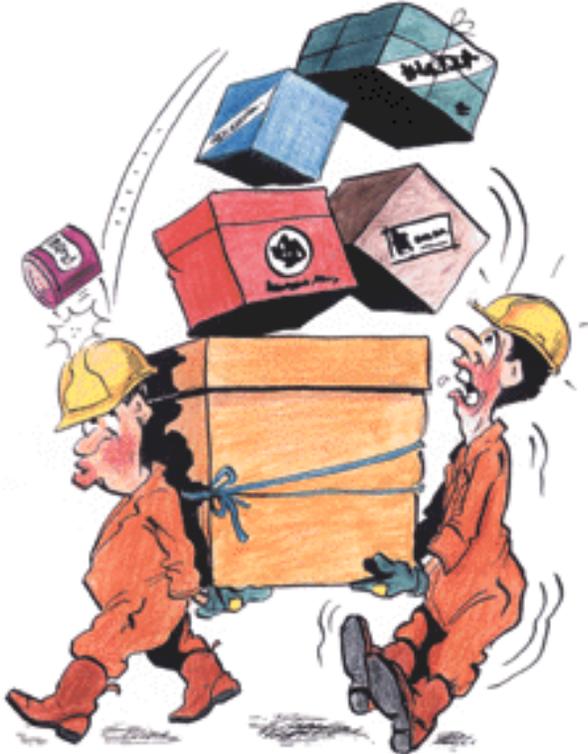
Manual handling tasks?

- Picking up a bucket of water and a mop
- Removing ladders from back of van
- Carrying a vacuum
- Emptying a bin into a skip
- Pushing a mower / using a hedge trimmer
- Holding a 5 litre container of chemical
- Using telescopic poles to clean windows
- Cleaning with a cloth
- Removing equipment from vans



Remember- manual handling extends to your home life as well!

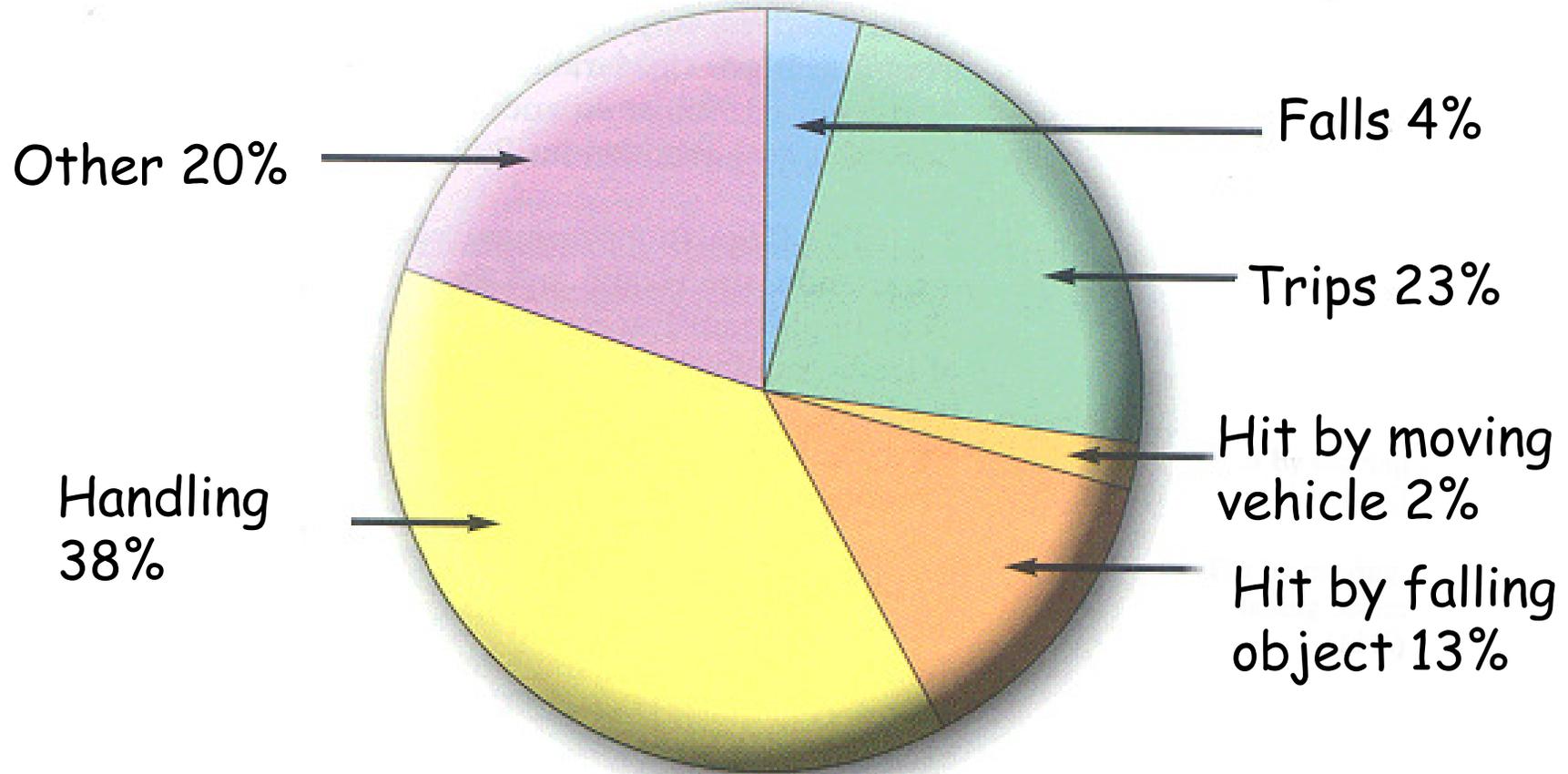
Why is it such a problem?



Because

- If you sustain a manual handling injury it could lead to you being off work for a long period of time! Your quality of life could change forever!
- it can cause severe pain and suffering to people who have been injured in this way
- it accounts for over one third of the lost time reportable accidents in the UK
- it costs British Industry millions of ££'s a year in loss of production, sick pay and settlement in compensation claims

UK Accident Types



What type of injuries?

- Spinal injuries such as slipped discs or dislocated joints

Other injuries include:

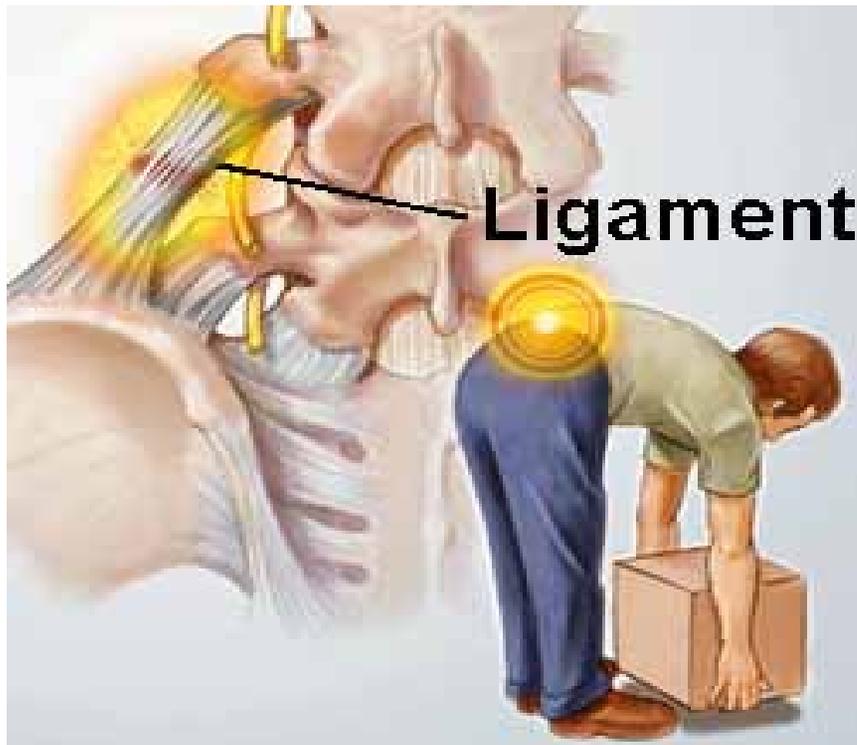
- Muscle and ligament damage
- Hernias
- Trapped nerves
- Sprains and strains
- Crushes, bruises, lacerations and fractures

Top Heavy Bending

- **Top Heavy Bending** occurs when people lift, push, pull or lean forwards over a work surface, keeping their legs straight and inclining the trunk forwards.



The mechanics

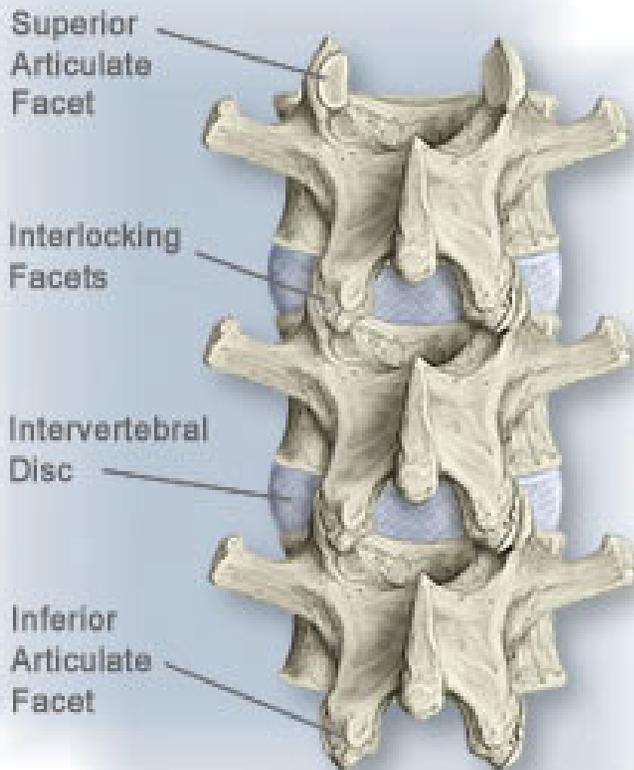


- The ligaments, muscles, and tendons work together to handle the external forces the spine encounters during movement, such as bending forward and lifting.

Ligaments and muscles start to over stretch!

Think of them like a piece of elastic being continually stretched over time, one day that elastic just won't stretch any more!

The mechanics



- The spine is made up of 33 small bones called the Vertebrae. In between each of vertebrae are intervertebral discs.

- Each disc is made up of two parts. The hard, tough outer layer called the annulus. This surrounds a mushy, moist center called the nucleus.

Think of the disc like a Cadburys Cream Egg!



- The intervertebral discs act as cushions between the bones, or like a shock absorber/ shock absorbing pad.

Slipped / Prolapsed disc

- The term slipped disc is misleading because it implies movement of the disc, which does not actually occur.

Instead of slipping: The hard outer layer of disc gradually cracks open allowing part or the entire nucleus (soft centre) to 'prolapsed' or 'seep out'.

This is generally caused by excess spinal pressure being applied, which can cause these discs to be compressed until they rupture.



Body Memory

- We top heavy bend because that's what our bodies are trained to do, we don't think about it, it just happens. Like driving the car or washing the dishes.
- We must continue to make a conscience effort to change our body patters, to think about how we are going to move and correct our movements as we go along.



T.I.L.E – a simple approach

- Task
- Individual
- Load
- Environment

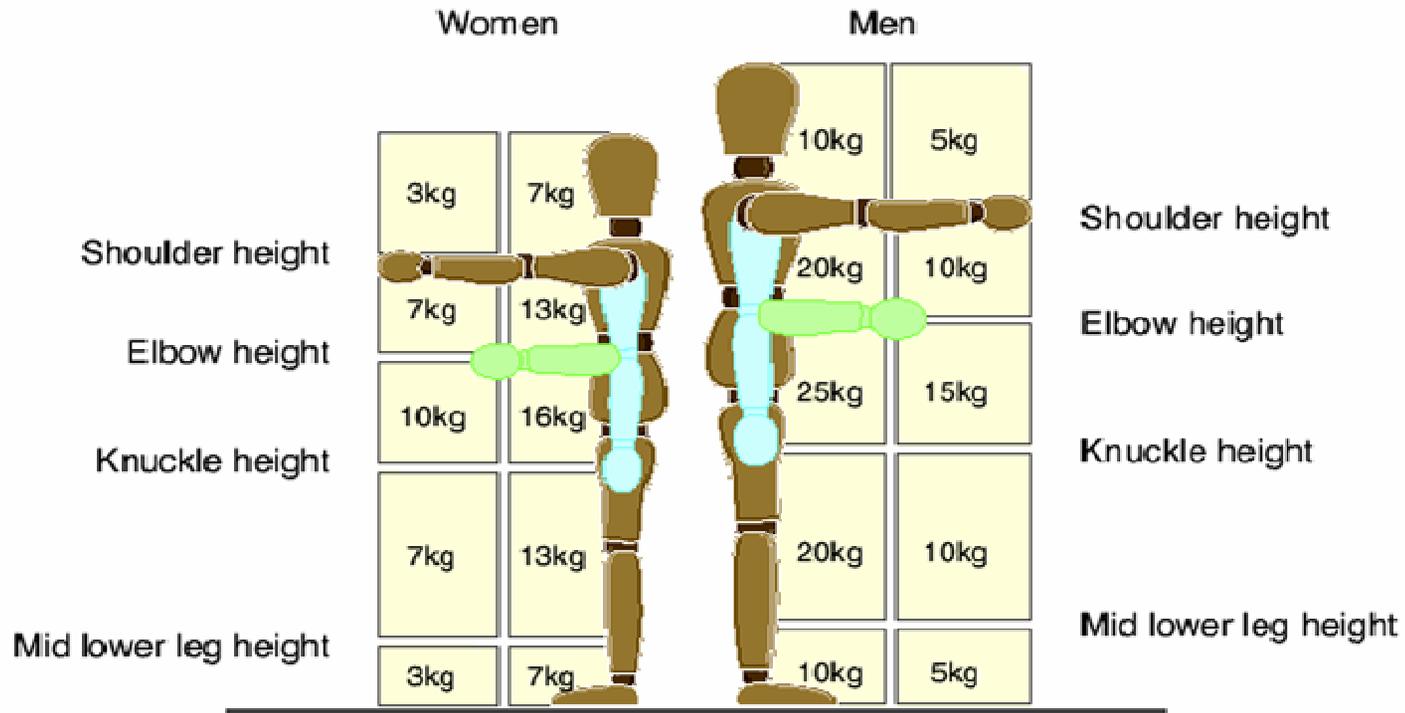
Task

- Does the task involve repetitive lifting
- Involve remaining in awkward or static positions for periods of time
- twisting the trunk or stooping
- Reaching upwards/ overstretching
- Excessive lifting or lowering distances
- Excessive carrying distances

Think about what you have to move, to where, how far and how many manoeuvres are needed.

Individual

- How much can I lift?



- There is no answer, only you know what you can lift

Individual Cont.

- **Current medical condition**

- An existing injury
- Pregnant
- Is specific training needed in order to carry out the task?
- Does the task require unusual strength, height etc?

- **Ensure you are physically capable or DO NOT LIFT!**



Load

- Is this a one man or two man lift
- Is the shape bulky or unwieldy, cumbersome, or awkward to grasp.
- Is it easily manipulated
- Is the contents stable – Bucket of water
- Are there any protruding objects – glass
- Could the contents slip
- **Can it be broken down into smaller loads?**



Remember – it does not have to be heavy in order to cause injury!

Environment / Route

- Uneven, slippery or unstable floors
- Variations in levels of floors or work surfaces - stairs
- Extremes of temperature or humidity
- Poor lighting conditions
- Working outside in adverse weather
- Working near mobile plant and site vehicles
- Opening doors



- **Familiarise yourself with the environment**
- **Move large loads outside of peak pedestrian and traffic times**

The principles

1



Adopt a stable position

Face the direction of the lift. Place your feet slightly apart with one foot slightly forward to maintain balance and move your feet during the lift to avoid twisting. Bring the load close to the body.

2



Bend your knees

To keep the spine's natural S curve, tuck your chin in and lean forward slightly over the load. Use leg pressure to make the lift.

3



Ensure a good hold

Grip the load and keep it as close to the body as possible.

4



Be smooth

As you lift, breathe out through the mouth whilst drawing in your navel so that you maintain a neutral spine and keep your trunk support strong. Raise your head, keep your chin tucked in and lift smoothly i.e. do not jerk.

5



Carry on moving

Walk steadily carrying the load close to your body, move your whole body to face the right direction and avoid twisting.

6

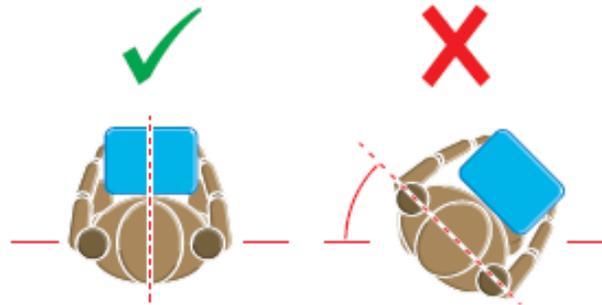


To lower the load

Reverse the procedure; place your feet apart, one slightly forward, tuck your chin in, bend your knees and tilt the load to avoid trapping fingers.

The principles cont.

- Do not turn whilst moving upwards – wait until you have reached a standing position and then pivot on the toes, not by twisting trunk of body.



- Keep the heaviest part of the item closest to the body.

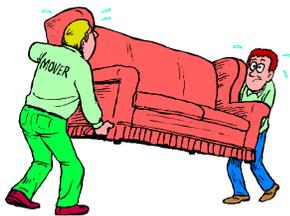
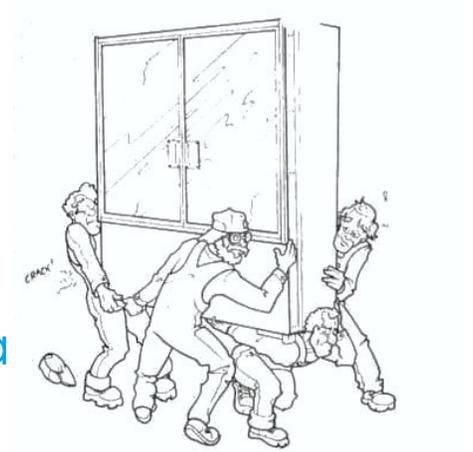


The techniques –team lifts

Team lifting needs to be co-ordinated properly.

- Work with someone of a similar build and height
- One person is responsible and calls the signals
- Do not use 1,2,3 try **ready, steady, lift!**
- Lifting in teams does not mean that the weight of the load increased by 100% for each extra person in the team.

- Always lift from the hips at the same time.



people + passion

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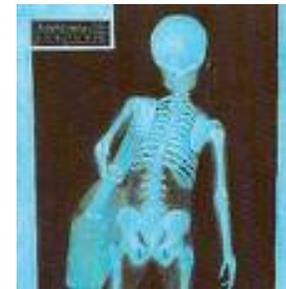
Work Safe!
Home Safe!

MITIE

The techniques – one arm lifts

Where possible split the load into two smaller loads.

- Brace your body with the opposite arm
- Reach by bending your knees and waist keeping your back straight
- Grasp the load firmly
- Lift from the legs using your free arm for balance
- Keep your shoulders level
- Switching hands regularly





The techniques pushing and pulling



For both pulling and pushing a secure footing is necessary and the hands need to be applied to the load between waist and shoulder height wherever possible.

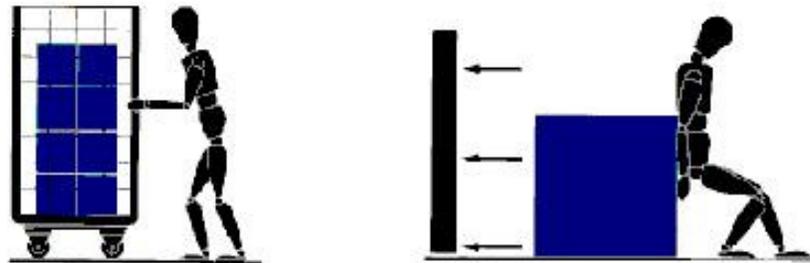
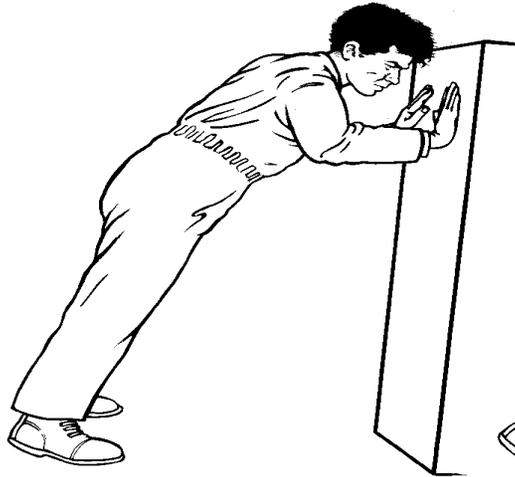


Figure 8 - Pushing and Pulling Loads

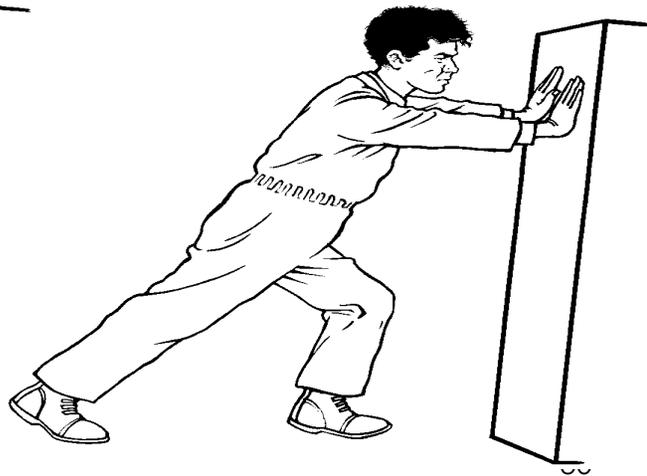
Pushing

- When pushing, the hands should be level with the sternum for optimum effect.
- Make sure you have a secure foothold with a good deep stance.

Wrong



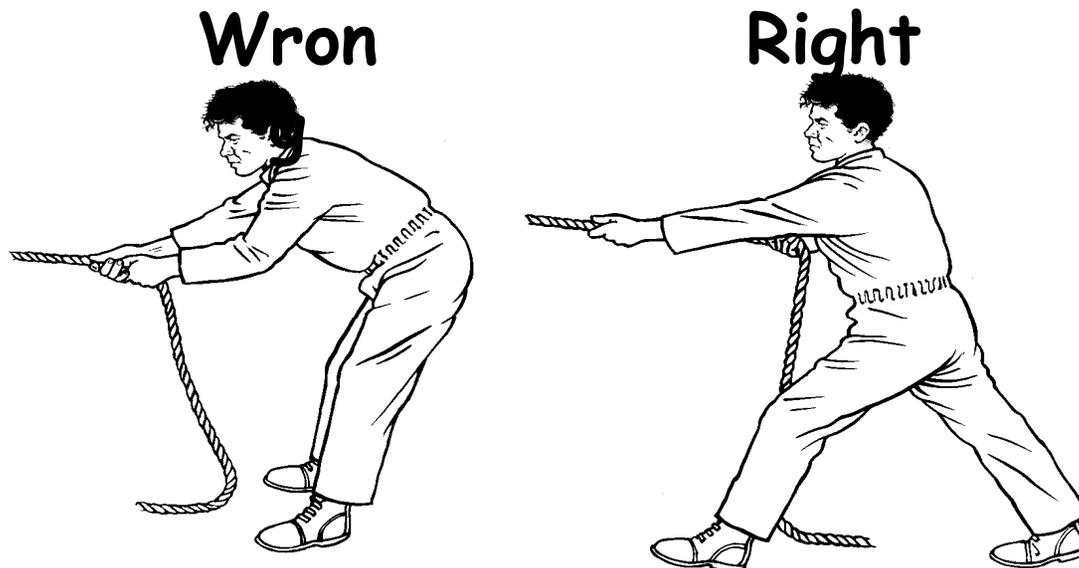
Right



Pulling

Avoid if possible

- Apply same principles, keep your back straight, adopt a wide stance, use your knees for strength and keep the elbows in.
- When pulling, the optimum position for the hands is to be at waist height.



Summary

- If you are unable to lift it – Don't seek help.
- Are you physically capable to carry out the lift?
- Task, Load, Environment and Individual Considerations.
- If you feel a twinge stop work and take a break.
- Keep your spine in line with your pelvis.
- Think about how you are lifting whilst carrying out the activity, correct yourself as you go along.
- Don't twist trunk whilst manoeuvring load.

Any questions?



Reminder about your responsibility

