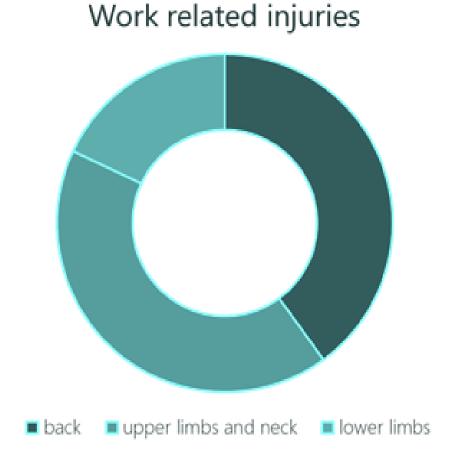


Manual Handling for Managers

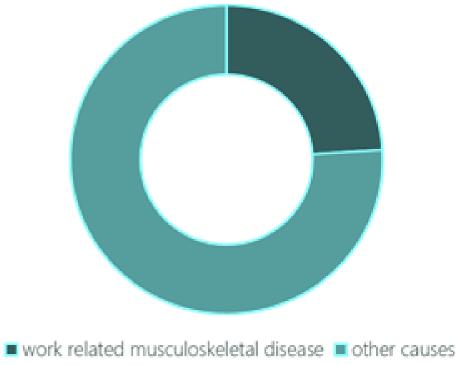
Subtitle goes here (if required)

Health Protection

Manual Handling Matters







UK (2020-21):

- 470,00 workers suffered work-related musculoskeletal disorders
- 28% of all work-related ill health

US (2020):

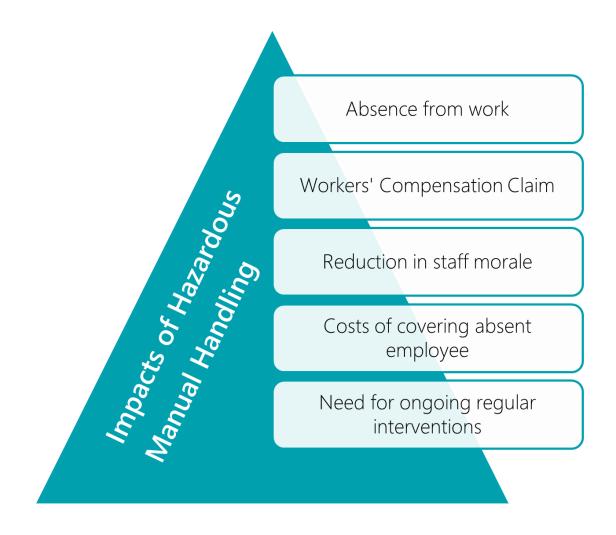
- 247,620 work-related musculoskeletal disorders
- 40% affected the back
- 255,490 work-related injuries were due to overexertion



Australia (2019-20):

- 120,355 serious claims report
- 37% due to body stressing
- 56% affected joint, ligament, tendon, muscle injury





Why Lift?

- Why are your team lifting as part of their work processes?
- Can this requirement be removed?
- Most effective way to PREVENT manual handling injuries is to ELIMINATE the need for the manual handling task



Musculoskeletal Disorders MSD's

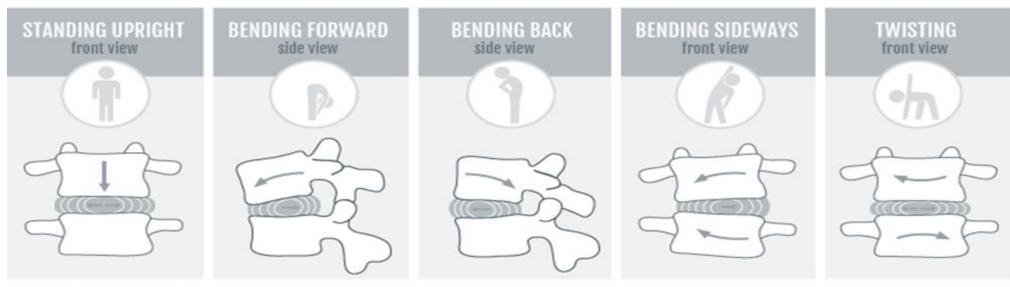
Causes of MSD injuries fall into three main categories:

- Traumatic manual handling injuries due to sudden, unexpected events such as accidents, slips, trips or falls, and cause conditions such as cuts, burns, entrapment injuries and fractures
- Cumulative stress injuries
- Degenerative stress injuries



Back Pain

- Back is central support system for skeleton
- Designed for strength and flexibility but not designed as a lifting device!
- Manual handling increases risk of developing back pain



→ Movement of vertebra → Movement of nucleus pulposis

sequencewiz.com



Symptoms of Back Pain

- Dull ache
- Shooting or stabbing pain
- Pain radiating down the leg
- Limited flexibility and range of movement
- Inability to stand up straight
- Pain which may worsen with movement

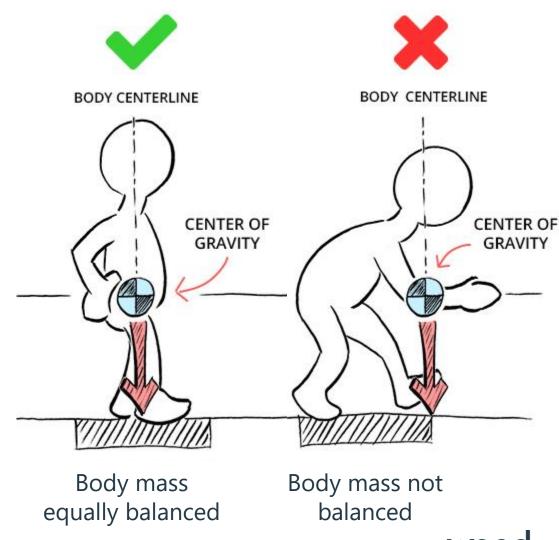
Most low back pain will mend with simple measures





Physics and the spine

- The centre of gravity shifts in front of the body when leaning or bending forward
- This put extra pressure on the lower back, increasing the risk for injury

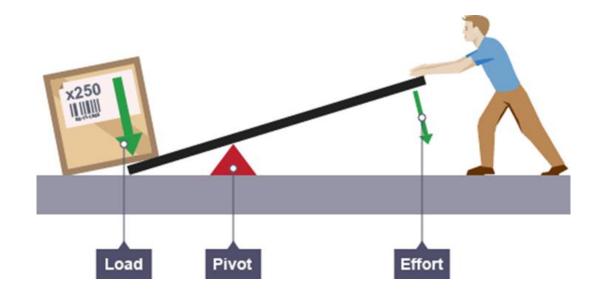


Physics and the spine



Leverage

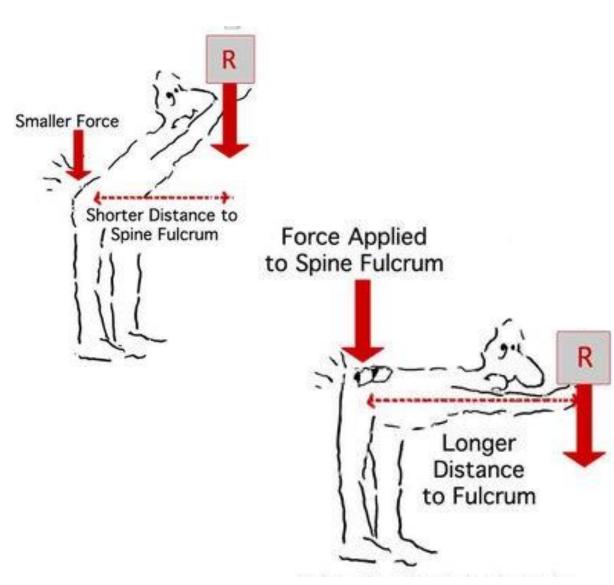
• Using a pivot or fulcrum allows you to apply only a minimum force to move a large mass.





Leverage

- Opposite effect with the back, no mechanical advantage
- Lower back acts as the pivot
- More force is required to lift the load as we bend forward
- Load may only weigh 10kg, but 10 times (100kg) this strain might be exerted at the pivot point
- Increases risk of injury

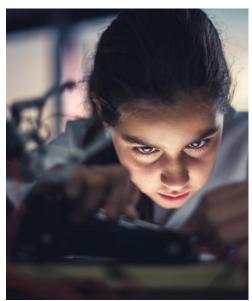


Special Groups

Employees that fall into one of these groups can be at increased risk of injury when handling loads

- Older
- Young
- Overweight
- Unfit
- Untrained
- Previously injured
- Fatigued
- Pregnant







Risk Assessment

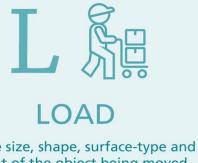
What are the factors that make the manual handling activity risky?

Evaluate four key risk areas

What measures can be put in place to reduce the risk associated with the four risk areas?







i.e. the size, shape, surface-type and weight of the object being moved.



i.e. the area in which the object is being moved.



Task related factors

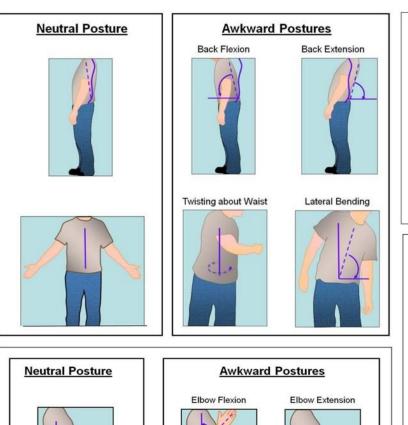
Excessive forces

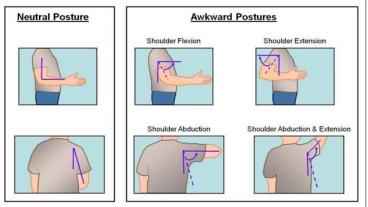
Tasks may be very demanding if they are too heavy, carried out too frequently, for too long with insufficient rest or recovery time

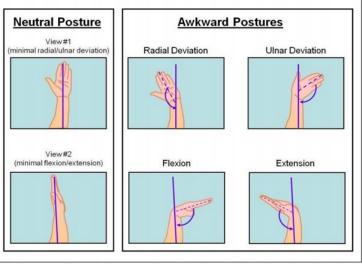
Awkward postures

Working with a bent and/or twisted trunk, raised arms, bent wrists, a bent neck and turned head increases the risk of back injury, as should twisting, turning and bending movements of the trunk, overreaching, sudden movements and repetitive handling.

Awkward Postures







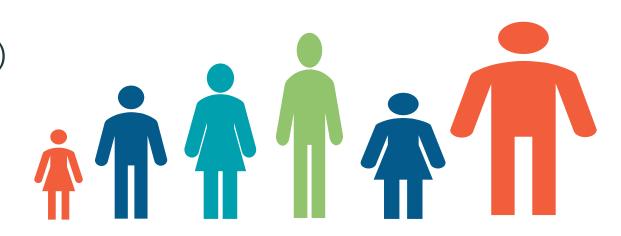
Reducing Task Factors

- Machinery or mechanical aids
- Alternate work patterns with job rotation
- Change the sequence of operations
- Reduce the range of load movement
- Eliminate stretching, twisting, and stooping
- Improve task layout
- Provide a rest point
- Bring employee closer to the load
- Use team handling
- Improve or adjust the work routine



Individual Risk Factor

- Experience, training, and familiarity with the job
- Age
- Physical dimensions and capacity (your team's length, weight, strength, etc.)
- Personal lifestyle and health status
- History of back disorders
- Pregnancy
- Tired or fatigued employees
- Movement or posture is impacted by PPE



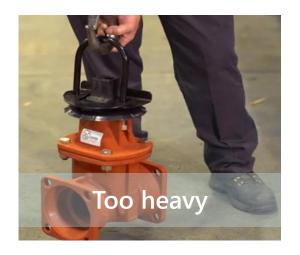


Reducing Individual Factors

- Design task to suit the handlers
- Training and supervision of manual handling activities
- Ensure handlers understand the operations
- Provide information on loads
- Encourage physical fitness and stopping smoking
- Train handlers to deal with potentially dangerous situations
- Ensure handlers use handling aids provided
- Ensure regular retraining



Load Risk Factors













Reducing Load Factors

- Change size of load (bigger or smaller)
- Split weight into multiple loads
- Add hand holds or grips
- Improve shape of the load (less bulky, shorter or less flexible)
- Improve grip with tools, suction pads
- Stabilize load with strapping, tie down straps



Example





Increase size of container or number of containers handled so mechanical aids must be used







Engineerd solution

- vacuum lifting system
- conveyer system

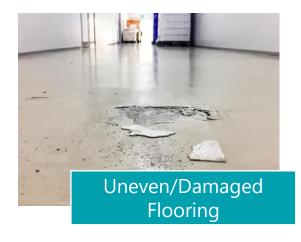




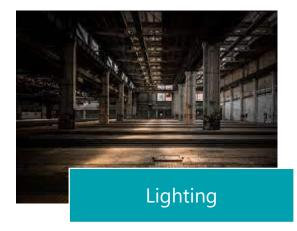
Use a cart or hand truck to move the material

Environment Risk Factors











Reduce Environment Factors

- Improve workplace layout
- Limit movement of the loads to one level
- Good housekeeping
- Keep floors clear of trip hazards
- Repair and/or maintain floors and worksurfaces
- Remove obstacles
- Increase light level, properly directing lighting, or shielding glare
- PPE and clothing suitable to the conditions
- Provide heating or cooling
- Install shelter or windbreaks



Manual Handling of Loads

If manual handling of loads cannot be eliminated or reduced, here are some good habits to follow:

- Ensure route of travel is clear
- Ensure doors are open
- Ensure good grip on the load
- Avoid wet or greasy hands, load and handles
- Ensure good communication before starting lift when team lifting



avoid manual handling tasks **ELIMINATE** redesign equipment modify workplace layout REDESIGN modify equipment layout •change actions and forces require •isolate the task trolleys carts MECHANICAL AIDS Lifts/forklift •mobile equipment •at induction/orientation and ongoing safe work procedures **TRAINING** good manual handling techniques adequate staffing •job rotation **ADMIN** rest breaks CONTROLS varying tasks safe work procedures Last line of defense PPE

Hierarchy of Controls

Wood.