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Best Practice Manual Handling

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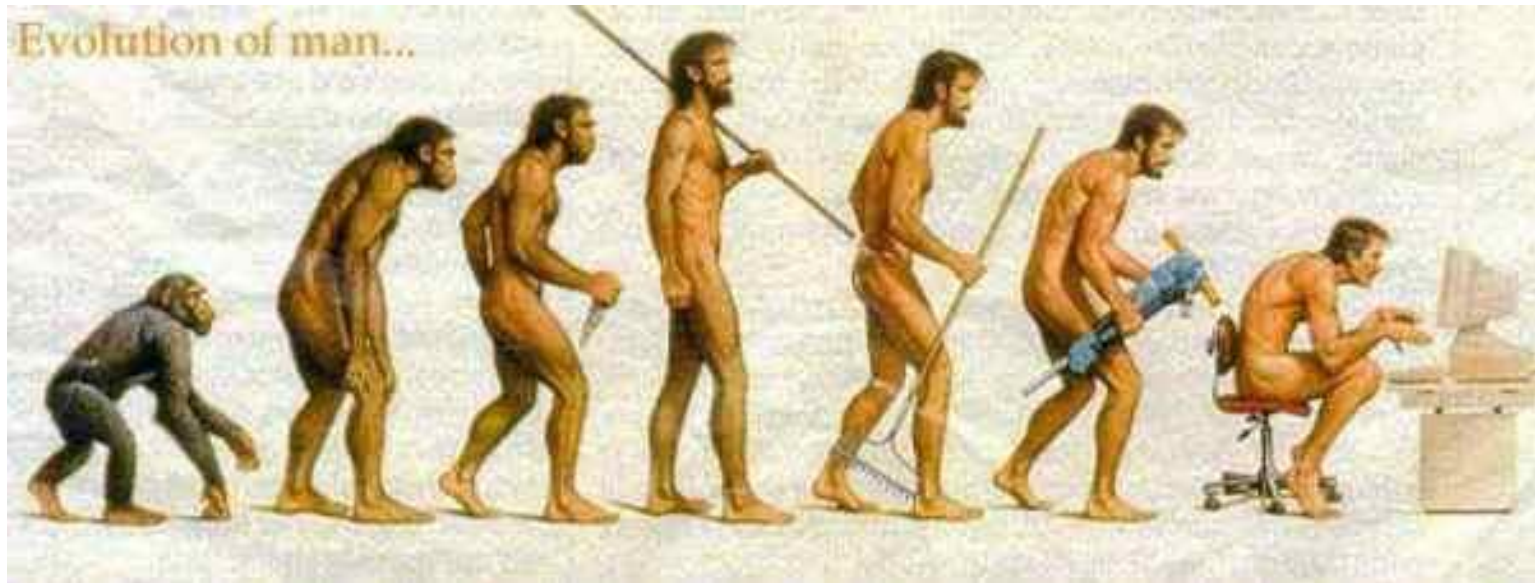
About Michael

- Qualified Physiotherapist for 20 years
- Last 10 years focus on ergonomics / manual tasks and integrating into health and safety systems
- Member HFESA, AAMHP
- Own consultancy / guest lecturer at Bond University
- Keen interest on research and evidence base for interventions

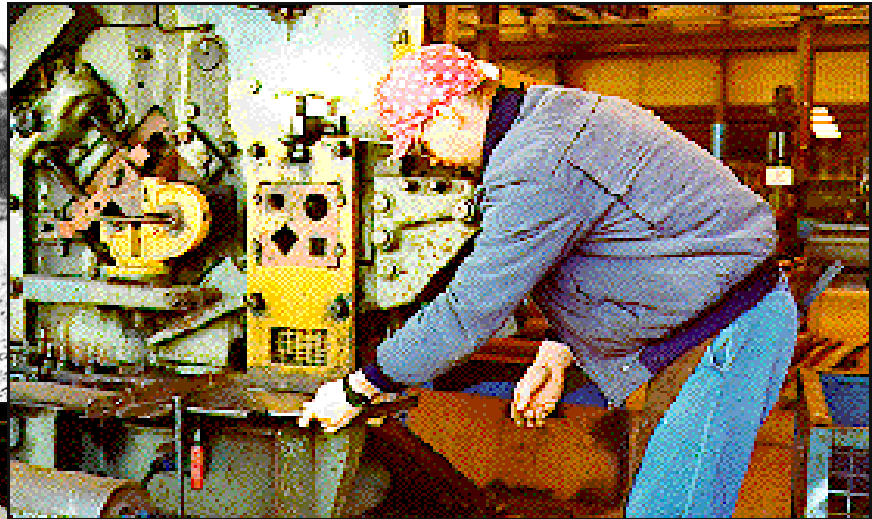
THE PROBLEM

What is the problem?

- Musculoskeletal disorders remain the largest source of injury and cost to business



Not a new problem...



But not a solved one either...

Musculoskeletal Disorders

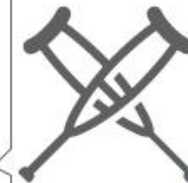


Australian Workers' Compensation
Statistics 2012–13

5

Summary of findings

Injuries & musculoskeletal disorders led to 90% of serious claims in 2012–13p and the most common type was Traumatic joint/ligament & muscle/tendon injury (45%). Diseases led to 10% of serious claims and the most common type was Mental disorders (6%) ([Table 6](#)).



90%

of **serious** claims were
caused by injuries &
musculoskeletal disorders

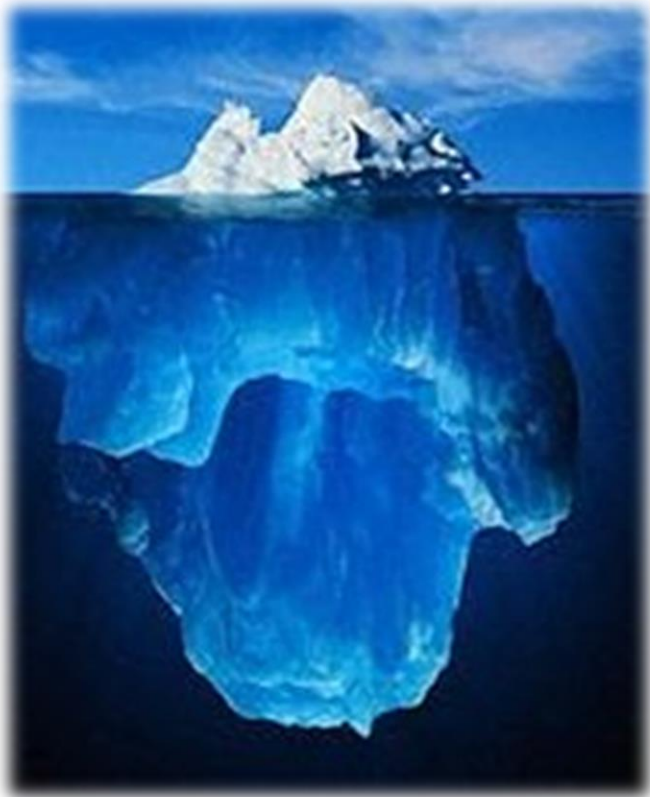
Muscular stress while lifting or handling objects caused 33% of serious claims in 2012–13p, while Falls, trips & slips of a person caused 22% of serious claims ([Table 16](#)).

33%

of **serious** claims the result
of muscular stress while
lifting or handling objects



Costs to Employer



- > In Australia, the average WorkCover premium is 1.5% of payroll (New Zealand only about 0.7%)
- > Uninsured costs estimated to be on average four times the insured cost

The uninsured costs include:

- > Cost of recruiting and training replacement staff
- > Loss of skills
- > Labour shortage
- > Reduced productivity
- > Property damage
- > Poor morale
- > Prohibition notice
- > Legal prosecutions, fines
- > Legal costs
- > Poor public image

HOW WE HAVE TRIED TO FIX IT!

Safe Lifting Training

- Bend your knees and keep your back straight!
- We have all heard it!
- Poll – who thinks they do this most of the time?



Safe Lifting Training

- The idea is right
- No taking into account the bigger picture.



Safe Lifting Training

- Doesn't work in isolation
- Lots of evidence for this.



CAUSES OF MUSCULOSKELETAL DISORDERS

Risk Factors for MSDs?

Physical Risk Factors:

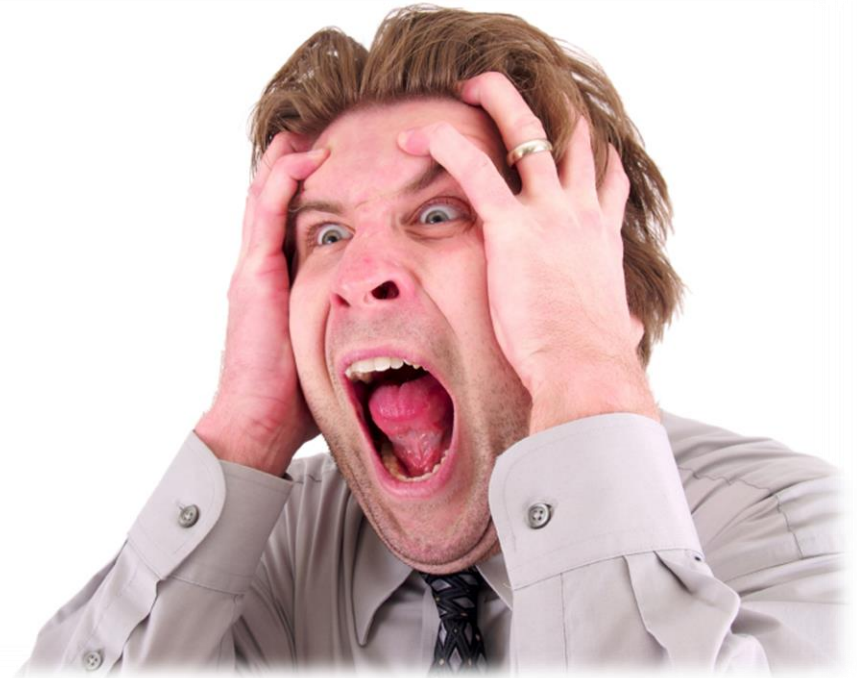
1. repetitive or sustained force
2. high or sudden force
3. repetitive movement
4. sustained or awkward posture
5. exposure to vibration.



Risk Factors for MSDs?

Emerging Evidence for:

1. Stress at work / low workplace control
2. Inadequate sleep
3. Inadequate exercise
4. Sedentary Lifestyle



THE NEED FOR A MORE COMPREHENSIVE SOLUTION TO MANUAL TASKS

PARTICIPATORY ERGONOMICS

Participatory Ergonomics

- Shown to be the most effective way of impacting manual task risk factors – and therefore reducing MSD's
- Involves contribution of workers to the risk management process.
- Workers have “buy in” to the process and reason why.
- Most evidence based way of addressing manual tasks risks

Participatory ergonomics - key players

- Facilitator / champion
 - Gains management commitment
 - Trains the work teams in the process
- Work Teams
 - Receive training in risk factors and controls
 - Conduct risk assessments and recommend controls
 - Work on recommending controls that address the core problem
- Management
 - Provide the resources and time to roll the program out
 - Implement recommendations in a reasonable way

Controls / Solutions

- Engineering Solutions



Example courtesy of Workplace Health and Safety Queensland.

Controls / Solutions

- Work Design Solution
 - Workflow solutions
 - Change in layout
 - Roster / shift changes
- Use of Equipment
 - Forklift attachments
 - Trolleys
 - Vacuum lifters
- Work Procedures
 - 2 person lifts
 - Safe lifting techniques!!!!!!!!!!



WHAT ABOUT IF YOU DON'T HAVE
THE TIME OR RESOURCE TO ROLL
OUT A FULL PROGRAM RIGHT NOW?

Participatory Ergonomics - Lite version

- Teach workers about manual tasks risk.
- Identify risky tasks
- Develop ideas for controls use higher order controls if possible.
- Develop a range of safe movement techniques that may be used by workers when higher order controls are not effective or are not possible.
- Apply these techniques to practical work situations and practice them.
- Mostly – Let the workers have some input into what they are meant to do

Participatory Ergonomics in a shorter session

- Start with the Risk Factors and explain what they mean
 - repetitive or sustained force
 - high or sudden force
 - repetitive movement
 - sustained or awkward posture
 - exposure to vibration.
- Use workplace pictures and videos if you can.

Force - high / repeated / sustained



Ask the Question

Q: What are the main tasks that require the use of force in our work?

Repetitive Movements



Ask the Question

Q: What are the main tasks that are repetitive in our work?

Awkward / Sustained Postures



Ask the Question

Q: What are the main tasks that encourage us toward sustained or awkward postures in our work?

Vibration



Participatory Ergonomics in a shorter session

- Start with the Risk Factors and explain what they mean
 - repetitive or sustained force
 - high or sudden force
 - repetitive movement
 - sustained or awkward posture
 - exposure to vibration.
- Use workplace pictures and videos if you can.
- Make a list of key tasks that have been identified
- Physically take work groups to the tasks and perform them

Ask the Question

Q: What would be the best way to do this task safely?

Make sure you act on ideas

- Make notes of any....
 - Equipment ideas
 - Task specific techniques
 - Changes to work flows
 - etc
- Train the workers in recommended task specific techniques while you are there.
- If needed document any new / changes to procedures.

Summary

- Manual tasks are still a big problem in all industries
- We need to take the focus away from safe ways to lift
 - Sometimes there is no safe way to lift
- The participatory approach is an internationally recognised way of reducing injuries from manual tasks
- Participatory Ergonomics is best rolled out as a program over a number of weeks.
- Even if we only have the resource to run a single session we can still move the focus from “how to lift” to “how can we get the job done safely”