Manual Handling for Tree Workers

2017 Edition

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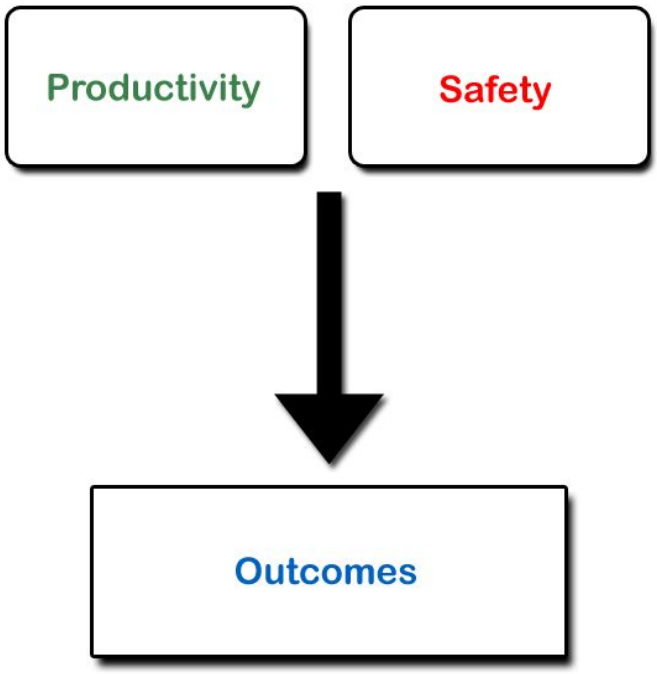
Shane Hall, VTIO President

Introduction

Why is Manual Handling an issue?



In 2017…

Health and safety is not an additional consideration…

It is <u>how we work</u>!

Manual handling stats

Approx 50% of all injury claims in Victoria are related to manual handling.

In the tree industry approx 17% of all claims are related to manual handling.
Being hit by moving objects is the greatest cause of injury at 49%.

The source is the WorkSafe scheme performance data

Reducing these is in everyone's benefit:

- Workplace
- Community
- Your work mates
- You

What's at stake for you?

Behind the statistics are real people with families, passions and lives.

What are you passionate about?

What would a serious injury mean for you and your life?

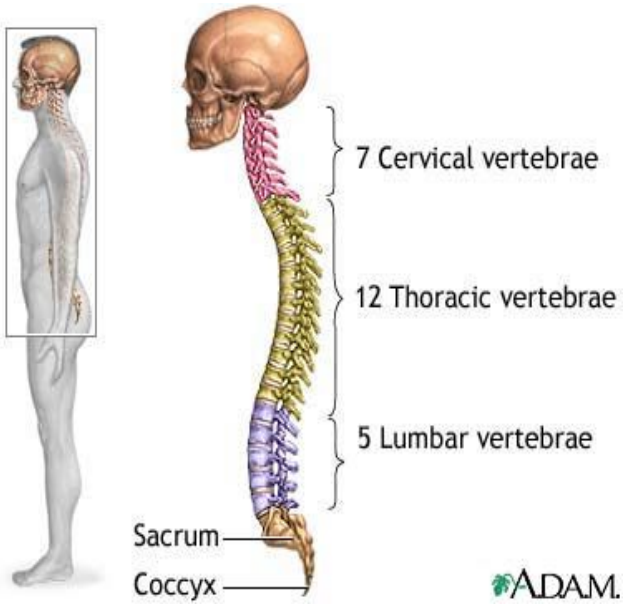
Always ask yourself:

What tasks are manual handling challenges to your crew?

What can we do as a team to make things safer?

What can I do personally to ensure I go home safe and well?

Basic anatomy of the spine



Cervical spine: 7 vertebrae that support the neck.

Thoracic spine: 12 vertebrae are attached to the ribs in the chest.

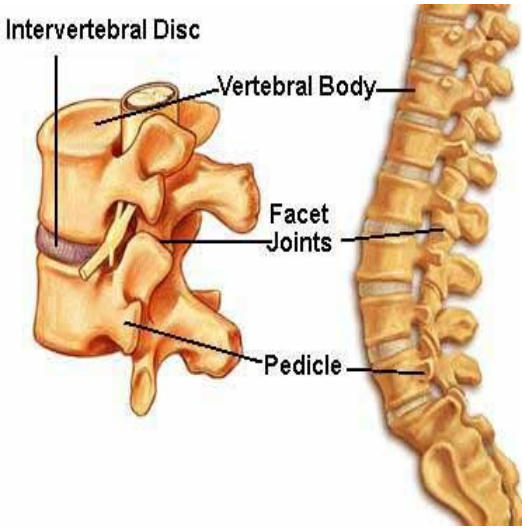
Lumbar spine: 5 vertebrae - the lowest and largest bones of the spinal column.

Sacrum: Connects the back to the pelvis

Coccyx (tailbone): Consists of tiny vertebrae fused together.

Intervertebral discs

- The discs serve as the spine's shock absorbing system- 'cushion between the vertebrae'.
- They protect the vertebrae, brain and other structures.
- Back pain is strongly associated with degeneration of intervertebral disc.
- Disc herniation occurs when the 'cushion' that sits between vertebrae is pushed outside its normal position.



Recognising Manual Handling risks

Manual handling injuries may result from:

- Gradual wear and tear caused by frequent or prolonged periods of activity.
- Sudden damage caused by strenuous manual handling or awkward lifting.
- Direct trauma caused by unexpected events.

Risk Factors

- Posture
- Sudden, jerky or hard to control movements
- Fast or repetitive work
- Force- heavy loads
- Duration- sustained postures or positions
- Stress
- Bending, reaching or twisting
- Environment
- Fitness
- Time of day

Controlling manual handling risks

Review of Manual Handling in the tree industry

Ask yourself:

Where has it gone wrong?

How can it work better?

Making Manual Handling work for you

Always consider these three key areas:

Equipment That is fit for purpose and makes the job easier

Systems That make the job easier and safer

People That speak up about safety, and work within their limits

Ask yourself:

Equipment

- Is your equipment fit for purpose? If not, where are you letting yourself down? Are your grips the right size? Are your saws sharp enough? Are they the right weight and size for you?

Systems

- Are you setting up and documenting safe and simple work procedures and sticking to them? (ie: not taking short cuts). Have you reviewed these with peers and safety professionals?

People

- Are you willing to contribute to building a safer workplace by being part of a “Speak Up” culture? Does communication let you down at times? Are you understanding of your own limits and working within them?

Risk assessments

To help you remember…

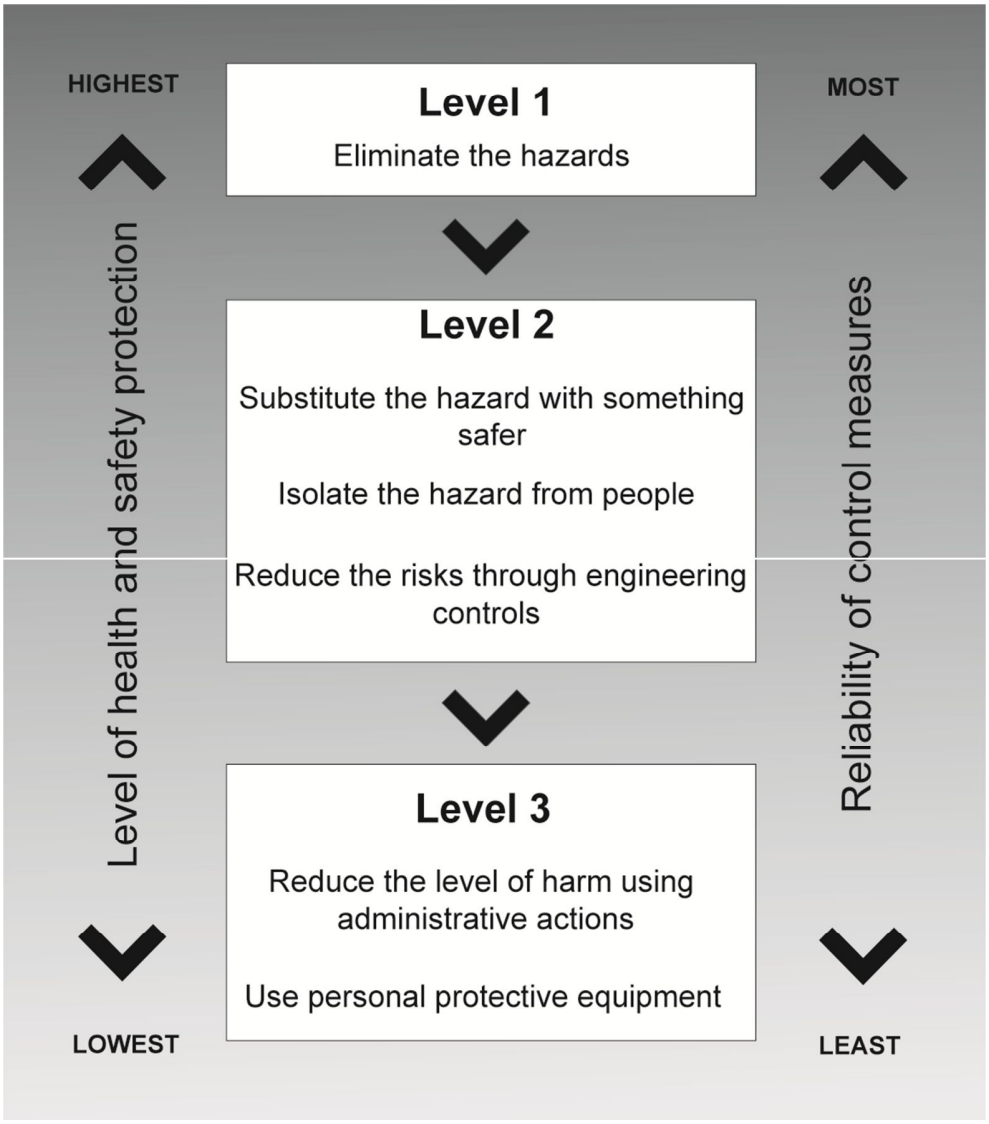
I	Identify	What do we need to be wary of?
Am	Assess	Is the risk too large to proceed?
Controlling	Control	Are controls required? If so, what?
Risks	Review	Is the task safe now?

Remember to wear your risk assessment hat on ALL THE TIME.

Risk Assessment is not just an occasional part of your job – it IS your job!

Risk assessment continued…

The hierarchy of control



Level 1 and 2 risk controls are more effective than level 3 (which rely on human factors and remembering).

What additional higher order risk controls (level 1 and 2) could be considered in your work practices?

Physical fitness for work

Staying physically well and pain free means keeping track of 3 key factors:

1. **Core stability:** the strength of the muscles that hold you upright.

2. **Flexibility:** the ability of your spinal joints, soft tissue and nerves to move freely

3. **Body awareness:** your coordination and mind / body connection.

Refer to the Physical Wellbeing for Tree Workers document for guidance on this, including a self test that helps guide you on the areas of weakness for you and the suggested exercises that can help you improve these areas.

Simple exercises like the this one below can help you warm up for the day. See the Physical Wellbeing document for more.

Slump stretch



Principles of good body use when Manual Handling

1. Keep loads close to the body and work in the “power zone”

2. Use your knees for power not your back

3. Use your core stabilizer muscles and good neutral posture to support you when using force.

4. Use your head – and speak up when the task requires too much of you or when you can see a better/safer way of doing things.

   (Your voice box is your most important muscle group!)

Putting it into practice for Tree Workers

Looking at specific tasks related to Tree Workers

1. Moving logs

What strategies make this task safer?

Tips for moving logs:

- Use your legs!!!
- Use the power zone for forceful actions
- Trim them into small to moderate pieces for easier handling
- Do above close to the loading area (plan the area first and consider access)
- Rotate this task with others to help vary body postures

2. Loading and unloading equipment

What strategies make this task safer?

How well designed is your vehicle?

- Do you have to use much reaching?
- Are the commonly used items accessible?

Tips for loading and unloading:

- Use accessible trays not vehicle cabins
- Have side tray access where practical to do so
- If using cabinet doors, use ones that you don't have to duck under
- Use drawers in vehicle design where possible to keep loads close to the body
- Load frequently used items in most accessible areas

3. Sharpening and cleaning saws

What strategies make this task safer?

Tips for Sharpening and cleaning saws

- Work in the power zone (bench height / close to body)
- Having access to a work bench – with compressed air – on the site is advantageous (requires vehicle design)
- Vary this task with others to avoid repetitive strain

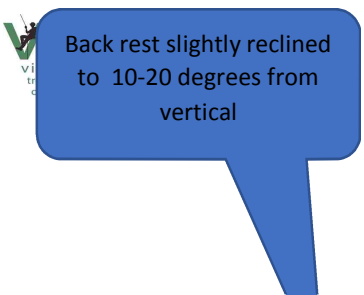
4. Trimming branches

What strategies make this task safer?

Tips for trimming branches:

- Use equipment that minimizes vibration
- Keep equipment up to date and sharp
- Have adequate choices of saws
- Rotate with other tasks
- If above not possible, then take rest pauses (climbers especially)
- Invest in good core strength
- Invest in strong shoulders (Therabands, etc.)

Tips for computer work ergonomics



For more information on office ergonomics contact david.hall@phwgroup.com.au

Home office checklist

Is there adequate space for a working desk?
Is a fire extinguisher readily available?

Is a basic first aid kit easily accessible?
Are exits from the work area clear and unobstructed?
Are all electrical cords and appliances safely secured?
Are there any tripping hazards (including stairs)?
Are all floor coverings safe and non-slip?
Is the lighting appropriate for the work being undertaken? (Ideally 320 – 400 Lux)
Is there proper ventilation and adequate heating/cooling?
Is there a working smoke detector?
Is there adequate storage?
If children have access to the space, is the office child proof?
Is a safe required?
Is a waste management system in place?

Tips for vehicle ergonomics

Step 1: Seat Height

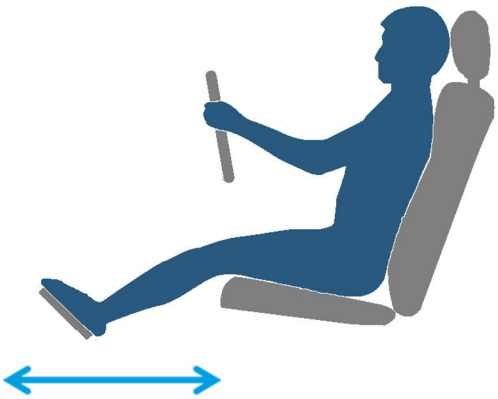
Raise your seat - as high as you can and still be comfortable:

- Optimise your vision through the windows
- 76mm (3 inches) view over the top of the steering wheel
- Sufficient room between the roof and the top of your head

Step 2: Seat distance

Adjust the seat forward/back position:

- Move the seat forward until you can easily push the pedals through their full range with your whole foot, not just your toes
- You may have to readjust the seat height to get better control of the pedals



Step 3: Seatpan

Check your seat cushion length:

- Sit as far back as possible
- Can you fit 2-3 fingers between back of and knee front of seat?
- If not, add a pillow or back cushion

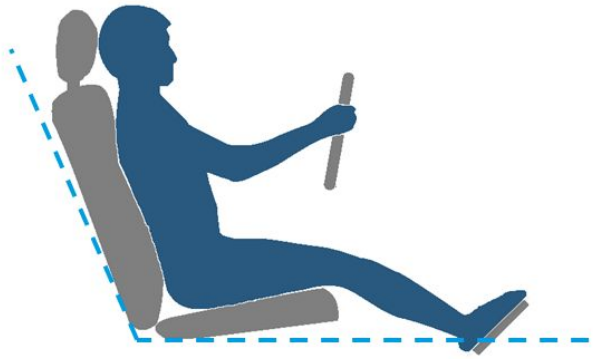
Adjust your seat-pan tilt:

- Tilt the seat until your thighs are supported
- Without pressure at the back of your knees
- Knees slightly lower than your hips

Step 4: Seat (back) tilt

Adjust your back tilt:

- 100-110 degrees from horizontal
- The back support should fully support your back
- Don't lean too far back
- If you cannot recline your seat, take frequent breaks from your upright posture by shifting your weight side to side



Step 5: Lumbar Support

Adjust your lumbar support:

- Adjust up-and-down and in-and-out until you feel an even pressure along your back
- The lower part of your back should feel supported
- Roll up a small towel and place in the curve of your back or obtain a lumbar pillow if necessary

Step 6: The steering wheel

Adjust the steering wheel for height and tilt and pull it back for easy reach:

- The center of the steering wheel 25-30cm from your breast bone
- Your arms should be comfortable
- Check for clearance with thighs and knees when using pedals
- Ensure display panel is in full view

Step 7: Head rest

Adjust the head rest (head restraint):

- While sitting, raise the head rest until the top of it is level with top of your head
- Adjust the angle of the head rest until it is almost touching the back of your head when you are in your sitting posture

Step 8: Mirrors

Adjust your mirrors:

- Check you don't have to twist your neck to see
- If you have a blind spot attach a small mirror to your dashboard

Step 9: Use of the vehicle

Consider:

- Is the seat belt comfortable? Is a strap cushion required?
- Do you have adequate head and leg room in the vehicle?
- Are there blind spot or other safety issues for you in this vehicle?
- Can you enter and exit the car safely and easily?
- Are items required such as drink bottles, paperwork or sat navs positioned in an accessible position?
- Are there issues with loading and unloading items from the vehicle?

Making Good decisions every moment

The principle discussed so far will be likely be new information to you, but here's the key question….

Do you always apply these principles?

If not, when do you let yourself down?

Common examples:

- Tired +++
- Rushed
- Old habits

Tips

- Plan breaks ++
- Manage your energy
- Good communication between climber and ground crew

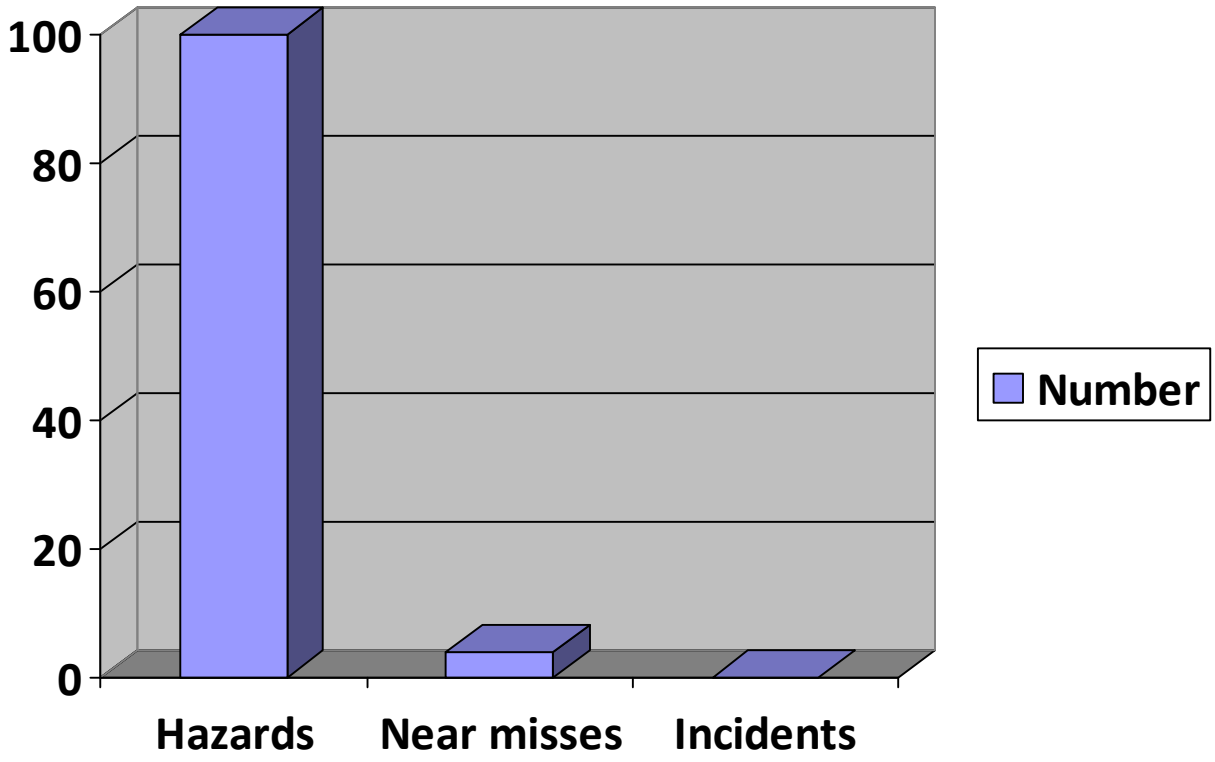
Reporting safety hazards

Consider the current reporting system for safety concerns at work.

A) How well is the current system of reporting hazards working?

B) How could this system be improved?

Note: What you want is a pattern like this…



This is a pro-active organisation/worker – always noting potential hazards and acting on them. Not waiting for the luck to run out!

Self-reflection

What are the main tasks you have recognised as a challenge to safe work practice?

_____

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What are the key strategies for reducing the risk in these tasks above?

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What is one thing you will commit to doing differently from today to ensure you get home safe and well?

_____

_____

_____

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_____

References and further reading

Code of practice: Amenity tree industry:

http://unionsafe.org.au/wp-content/uploads/2012/09/Amenitytreeindustry.pdf

Code of Practice: How to manage work health and safety risks 2011:

http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/manage-whs-risks-cop

Code of practice: Hazardous manual tasks 2011:

http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/hazardous-manual-tasks-cop

Officewise guide Worksafe

https://www.worksafe.vic.gov.au/__data/assets/pdf_file/0016/3634/Officewise_web.pdf

Telework Tool Kit

http://www.teleworktoolkit.com

Health and Safety Handbook

http://www.healthandsafetyhandbook.com.au

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