



# Manual handling

### What is the issue?

Manual handling is not just about lifting. It refers to any activity that requires a person to use force to push, pull, roll, hold, restrain or carry an object or animal, and includes repetitive tasks, such as using hand tools, operating machinery and even milking.

Most jobs involve manual handling, so most workers are at risk of manual handling injuries.

### Why is it an issue?

Not all manual handling tasks are hazardous, however about 25% of workplace injuries are caused by manual handling.

### What are the consequences of ignoring it?

Injuries associated with manual handling include:

- muscle sprains and strains;
- back injuries, including injuries to muscles, ligaments and intervertebral discs;
- soft tissue injuries to nerves, ligaments and tendons in the wrists, arms, shoulders, neck or legs;
- abdominal hernias; and
- chronic pain.

Collectively, these are called musculoskeletal disorders and include conditions such as RSI (repetitive strain injury) and occupational overuse syndrome.

### How safe is your dairy now?

Common activities in the dairy that could cause manual handling disorders include:

- lifting/carrying buckets of milk or water;
- handling bags of grain, feed and feed additives;
- moving chemical drums or containers;
- taking samples from the herd;
- sorting samples on a bench;
- handling herd test samples, such as carrying them through a dairy to a vehicle;
- handling milk cups, including putting them on or removing them while bent over in an awkward posture;



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- pulling clusters against Automatic Cup Removers (ACRs);
- pulling washdown hoses;
- bending over to wash buckets;
- pulling feed levers;
- bending and reaching to use teat sprays;
- pulling and lifting calves; and
- moving grain augers.

The effect of these hazards will vary according to how often they have to be performed, and a worker's age, experience and physical capacity.

When assessing the manual handling hazard associated with a task, the person who will be performing it should also be assessed to determine their suitability to undertake the task.

While not classed as personal protective equipment, it has been claimed that back belts can reduce the strain of manual handling and people with damaged backs often wear them. However, according to WorkSafe Victoria, there is:

- little scientific evidence of increased lifting power;
- little scientific evidence of lower rates of injury for workers wearing them; and
- some evidence of potential harm due to increased abdominal and blood pressures.

### What can be done right now?

In a dairy, one of the most useful handling aids is a trolley, or the addition of wheels to commonly moved items. They can be used to transport large drums, bags, sacks, chemicals, buckets and herd testing trays.

However, you need to make sure that the trolley you are using is suitable for the specific task you are performing. That may mean there is a need for a range of different trolleys in the dairy.

To ensure safe handling, it may also be necessary to securely strap the load to the trolley before you try moving it around.

If drums or test buckets are to be moved only a short distance, perhaps while in use, it may be possible to rest them on a squat panel trolley or to fix castors. This option is only practical on concrete or solid floors.

A four-wheel pneumatic tyred trolley is useful for moving calf buckets from the dairy to the calf shed.



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If using a trolley to move herd testing trays, either within the dairy or to a vehicle, make sure the number of samples on each is limited to a weight that can be comfortably carried.

Adding a jockey wheel will substantially reduce the risk of injury when trying to move large trailers or augers. Manual force will still be required to move them, but it will be greatly reduced, as will the chance of sustaining an injury.

Ordering frequently used products in bulk quantities and having them delivered in bulk bags and 'palletcons' can remove the risks associated with moving large amounts of small items. However, forklifts and front-end loaders may then be needed to move these larger items around – these items should also be firmly secured to their transport with straps or chains before being moved.

Infrequently used products, including some feed additives, lubricants and cleaners, can often be bought in small quantities that are easier to handle manually and decant.

Care should be taken when carrying items of an odd shape or those whose contents may shift with movement, such as a bucket of milk/water.

If you need to move small volumes of water or milk around the dairy, it is better to split the amount between two buckets. Carrying two buckets with less content can reduce the physical strain on a worker, without reducing the volume of the load.

When working at the cups-on position of a rotary dairy, consider rotating with the person in the cups-off position during milking, and install rubber 'anti-fatigue' matting to cushion the effect of standing on hard cold surfaces for long periods of time. Anti-fatigue matting can also be used in the herringbone pits, but you will need to ensure that it can be cleaned and does not introduce slipping and tripping hazards.

Using a long nozzle teat spray will reduce reaching, the risk of being kicked by an animal or being exposed to the teat spray, while sorting herd samples at a bench or table will reduce the need for reaching and bending.

Finally, encourage workers and others to ask for help if they find performing a certain task is creating a great physical strain.

For many years, the safe lifting procedure for small items has been to lift from a squatting position, using your leg muscles, rather than your back, and keeping your back straight. This remains the safest way to personally lift small items, but many people still injure themselves using this technique, often because they mistakenly believe it allows them to lift items beyond their physical capacity. As a result, WorkSafe emphasises the need to use mechanical aids.



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### What are the next steps?

OH&S authorities stress that mechanical aids should be used as much as possible to reduce the risk of manual handling injuries. Some of the following suggestions may require some modification of your dairy. For instance:

- store idle clusters on brackets that are at a readily accessible height between the hip and shoulders;
- use automatic cup removers whenever practical that leave the clusters between hip and shoulders;
- ACRs should be fitted with Ram vents to reduce resistance when pulling the ACR chord during operation;
- use hydrant or flood washing, rather than dragging hoses;
- when herd testing, use mini-flasks, which carry smaller samples and therefore weigh less; and
- a trough for washing buckets at a comfortable working height.

### What you should be considering longer term

The safe design of dairies and equipment can eliminate many manual handling hazards. When designing a new dairy or modifying an existing one, consider incorporating the following ideas:

- a dairy designed so that workers can milk in a comfortable position with limited over-reaching (Consider designing the dairy so that the cow is as far back towards the milker as is practical. In existing dairies, this may mean fitting a breast bar to push the cow back towards the milker);
- dairy pits of a depth suitable for milkers;
- a cups-on/cups-off area that can be altered to suit a worker's height - keeping equipment and udder access between the worker's shoulders and hips;
- platforms on the floor to raise shorter milkers, but these need to be secure and not introduce potential tripping hazards;

The platform height and pit depth in a dairy needs to consider the height of milkers - current designers are recommending 900mm to 1000mm as the most appropriate.

- kick rails and splashguards that allow easy access to milking cups;
- ramps throughout the dairy for the easy use of mechanical aids such as trolleys;
- the dairy and pit designed so that herd test sample taking can be performed using a comfortable posture – again between the hip and shoulder; and
- automatic feed systems to eliminate the risks associated with handling feed.



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### What actions are not optional

Due to the frequency of manual handling injuries and the effect they can have on the functioning of workplaces, there are specific manual handling regulations and advice on this hazard. The regulations are aimed at ensuring employers assess any manual handling tasks and identify how to do them in less hazardous ways.

The Victorian Manual Handling Code of Practice provides assistance to employers on which manual handling tasks in your workplace could cause musculoskeletal disorders and how to control the risk

### Where to go for more information

<b>Victorian Department of Primary Industries</b> Agriculture Notes	<a href="http://www.dpi.vic.gov.au">www.dpi.vic.gov.au</a>
<b>WorkSafe Victoria</b> Managing manual handling risk in a small organisation	<a href="http://www.worksafe.vic.gov.au">www.worksafe.vic.gov.au</a>
Manual Handling Code of Practice	<a href="http://www.worksafe.vic.gov.au">www.worksafe.vic.gov.au</a>
Guidance note: Back belts are not effective in reducing back injuries	<a href="http://www.workcover.vic.gov.au">www.workcover.vic.gov.au</a>
<b>National OHS Commission</b>	<a href="http://www.nohsc.gov.au">www.nohsc.gov.au</a>
<b>CowTime</b> Manual handling	<a href="http://www.cowtime.com.au">www.cowtime.com.au</a>