

Workplace Health and Safety Queensland

Lifting technique training: Is it effective?

Lifting technique training continues to be used as a primary way to control manual task risks in the workplace. However, evidence suggests there is no 'safe' way to lift.¹

The main reason lifting technique training is not effective is because the risk factors causing the problem are not changed. Even if workers attempt to apply lifting techniques, they may still be exposed to a serious injury risk.

When faced with a hazardous manual task that involves lifting, some initial questions should be considered:

- Why do the workers have to lift?
- Can that part of the job be eliminated
- Can the task be done another way?

What should industry be doing?

Businesses should take a proactive, holistic approach to managing work health and safety. Businesses that do are likely to have a strong safety culture and good risk management strategies for all hazard areas, including manual task risks.

- Follow the risk management principles for hazardous manual tasks:
 - Identify hazardous manual tasks.
 - Assess the risk.
 - Identify and implement controls with a focus on elimination and design.
 - Monitor and review the situation.
- Have visible management commitment and leadership. Research shows:

- management support and leadership are strong influencing factors in affecting health and safety outcomes and can have a profound impact on safety culture
- improving workplace culture is cost effective.

- Involve workers in the risk management process. The [PErforM](#) manual task risk management process is based on the idea that the worker is the expert in performing their work tasks, and provides a framework for helping workers and management to identify and control manual task risks. The benefits of a participative approach include:
 - a positive impact on reducing musculoskeletal symptoms, injuries and workers compensation claims
 - a reduction in lost days from work or sickness absence
 - higher returns on investment
 - greater worker ownership of the solution.
- Communicate effectively through consultation and provide appropriate information, education and training.

The evidence

The research evidence shows that providing lifting technique training is not effective in minimising the risk of injury from manual tasks.

¹ See evidence on page 2.

The Cochrane Collaboration

The Cochrane Collaboration conducted a systematic review in 2011 to determine the effectiveness of manual handling advice and training and the use of assistive devices in preventing and treating back pain in workers.² Cochrane found moderate evidence that providing manual handling advice and training is no more effective at preventing back pain related disability than having no intervention.

British Medical Journal

In 2008, research published in the British Medical Journal, concluded 'there is no evidence to support use of advice or training in working techniques for preventing back pain or consequent disability'.³

The training interventions that were studied focused on lifting techniques, with training duration varying from a single session to training once a week for two years.

Postal workers study

In this study, approximately 4000 US postal workers were involved in a randomised control trial* for more than five years from 1985 to 1990, to test the effectiveness of manual handling training.⁴

The study included workers and supervisors being taught principles of back safety, correct lifting and handling posture, exercises and pain management. A refresher training

² Verbeek JH, Martimo KP, Karppinen J, Kuijer PPFM, Viikari-Juntura E, Takala EP (2011). Material handling advice and assistive devices for preventing and treating back pain in workers (Review). Cochrane Library 2011, Issue 6.

³ Kari-Pekka Martimo, Jos Verbeek, Jaro Karppinen, Andrea D Furlan, Esa-Pekka Takala, P Paul F M Kuijer, Merja Jauhiainen, Eira Viikari-Juntura. (2008). Effect of training and lifting equipment for preventing back pain in lifting and handling: systematic review. BMJ, Vol 23,336, 429-431

⁴ Daltroy, L.H., Iversen, M.D., Larson, M.G., Lew, R., Wright, E., Ryan, J., Zwerling, C., Fossel, A.H., Liang, M.H. (1997). A controlled trial of an educational program to prevent low back injuries. The New England Journal of Medicine, Vol. 337, Number 5, 322-328.

session occurred six months later and then on a yearly basis.

The study concluded that:

- the training program did not reduce the rate of lower back injury
- there was no significant difference in the median cost per injury
- there was no difference in the rate of musculoskeletal disorders or the handling behaviours.

Half way through the study, a survey was conducted to measure knowledge gained and behaviour changes made by the group. The survey found significant increases in the knowledge of safe lifting behaviour among workers, but no significant improvements in actual lifting behaviour or reduction in reported discomfort.

Definitions

* Randomised control trial - when looking at the evidence, it is important to consider research that is the least susceptible to bias. A randomised control trial is the gold standard for research and the most rigorous way of determining whether a cause-effect relationship exists between treatment and outcome.

More information

For more information about manual task risk management and the PERforM program visit the Workplace Health and Safety Queensland website: www.worksafe.qld.gov.au, or call the WHS Infoline on 1300 365 915.

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