

Test your OHS knowledge

1. What kind of OHS support do small businesses need?
2. Which part of Ontario has the lowest young worker injury rate?
3. Which OHS programs are effective and financially worthwhile?
4. Should you consider arm supports to prevent upper body MSDs?
5. How can you involve workers in MSD prevention?
6. Should you use back belts to prevent back injury?
7. How can patient lifts effectively prevent injuries?
8. How many new workers receive safety training?
 - 21 per cent
 - 53 per cent
 - 86 per cent

Research answers from the Institute for Work & Health

1. What kinds of OHS support do small businesses need?

Small businesses need support that:

- respects the often personal nature of working relationships,
- accommodates their economic constraints,
- recognizes their culture of independence and lack of formal OHS systems/resources,
- helps them understand OHS rules and approaches, and
- tailors information and services to their specific size and sector.

Source: MacEachen E, Breslin FC, Kyle N, Irvin E, Kosny A, Bigelow P, Mahood Q, Scott-Dixon K, Morassaei S, Facey M, Chambers L, Couban R, Shannon HS, Cullen K, Amick BC. Effectiveness and implementation of health and safety in small enterprises: A systematic review of quantitative and qualitative literature. Toronto: Institute for Work & Health, 2008. The full report is available at www.iwh.on.ca/systematic-reviews.

2. Which part of Ontario has the lowest young worker injury rate?

Two areas have rates lower than two injuries per 100 full-time equivalents (FTEs): the Rainy River District in the northwest along the Minnesota border, and Huron County, on Lake Huron. The highest rates, at more than four injuries per 100 FTEs, are in Cochrane District in the northeast encompassing Timmins; Lennon & Addington County/Prince Edward Division, which is west of Kingston; and Dufferin County, which is northwest of Toronto. Greater residential stability in an area is associated with lower work injury rates.

Source: Breslin FC, Smith P, Dunn JR. An ecological study of regional variation in work injuries among young workers. BMC Public Health 2007 7:91. A more detailed study summary is available through www.iwh.on.ca/highlights/youth-injury-rates-vary-across-ontario-regions.

3. Which OHS programs are effective and financially worthwhile?

OHS programs that both protect health and save resources include:

- disability management programs across all sectors,
- ergonomic and other musculoskeletal disorder (MSD) prevention programs in the manufacturing and warehousing sector.

Source: Tompa E, Dolinschi R, de Oliveira C, Irvin E. A systematic review of OHS interventions with economic evaluations. Toronto: Institute for Work & Health, 2007. The full report is available at www.iwh.on.ca/systematic-reviews.

4. Should you consider arm supports to prevent upper body MSDs?

Yes. Research shows that providing arm supports to computer and other workstations in a range of job environments can help prevent and manage painful musculoskeletal disorders of the neck, shoulders, upper arms, elbows, forearms, wrists and hands. Arm supports are an important design strategy for reducing muscle loading in the upper extremity.

Source: Amick BC, Kennedy CA, Dennerlein JT, Brewer S, Catli S, Williams R, Serra C, Gerr F, Irvin E, Mahood Q, Franzblau A, Van Eerd D, Evanoff B, Rempel D. Systematic review of the role of occupational health and safety interventions in the prevention of upper extremity musculoskeletal symptoms, signs, disorders, injuries, claims and lost time. Toronto: Institute for Work & Health, 2008. The full report is available at www.iwh.on.ca/systematic-reviews.

5. How can you involve workers in MSD prevention?

Workers can be involved in preventing musculoskeletal disorders (MSDs) through “participatory ergonomics” (PE). PE gives workers and supervisors enough knowledge and power to plan and control a good part of their work activities in order to prevent MSDs. PE programs, which have been shown to reduce MSD-related symptoms, days lost from work and workers’ compensation claims, are more successful when:

- PE teams are created with the right mix of members, including workers, supervisors and advisors,
- key facilitators of and barriers to putting PE into practice are addressed, such as management support and resources,
- the right people in the workplace, beyond those on the team, are involved in the overall PE process,
- ergonomics training is provided,
- a PE champion is involved to guide and monitor the process,
- the responsibilities of those involved in the PE process are defined, and these usually include problem-solving, developing solutions and implementing changes,
- decisions are made through group consultations.

Source: Van Eerd D, Cole D, Irvin E, Mahood Q, Keown K, Theberge N, Village J, St. Vincent M, Cullen K, Widdrington H. Report on process and implementation of participatory ergonomic interventions: A systematic review. Toronto: Institute for Work & Health, 2008. The full report is available at www.iwh.on.ca/systematic-reviews.

6. Should you use back belts to prevent back injury?

No. An IWH systematic review of studies on back belts shows that they do not prevent low-back injuries. Indeed, the U.S. National Institute for Occupational Safety and Health (NIOSH) currently does not support the use of back belts in the workplace. NIOSH’s Back Belt Working Group found that using back belts may:

- produce some strain on the cardiovascular system,
- limit mobility and reduce back muscle elasticity, potentially contributing to injury, and
- create a false sense of security, increasing the risk of lifting too heavy or too awkward loads.

When it comes to MSD prevention, there are usually no quick fixes.

Source: Ammendolia C, Kerr MS, Bombardier C. Back belt use for prevention of occupational low back pain: A systematic review. *Journal of Manipulative Physiological Therapeutics*. February 2005; 28(2):128-34. Also see: www.ccohs.ca/oshanswers/ergonomics/back_blt.html.

7. How can patient lifts effectively prevent injuries?

Effective patient handling can prevent MSDs among health-care workers. In order to do so, however, the following must be implemented:

- a policy change at the worksite (e.g. a zero-lift policy),
- new equipment, such as overhead lifts or floor lifts, and
- training on patient handling and use of the new equipment.

In fact, the research is showing that in different types of workplaces, programs with multiple strategies are more effective than doing just one thing.

Source: Amick BC, Tullar JH, Brewer S, Irvin E, Pompeii L, Wang A, Van Eerd D, Gimeno D, Evanoff B. Interventions in health-care settings to protect musculoskeletal health: A systematic review. Toronto: Institute for Work & Health, 2007. The full report is available at www.iwh.on.ca/systematic-reviews.

8. How many new workers receive safety training: 21 per cent, 53 per cent or 86 per cent?

An IWH study shows that across Canada, only one in five workers — 21 per cent — received safety training in their first year with a new employer. In Ontario, the rate was 28 per cent. This was the case even for new workers in high-risk groups, such as young workers or workers in physically demanding jobs. Even though provincial laws mandate safety training for new employees, this training isn’t happening.

Source: Smith P, Mustard C. How many employees receive safety training during their first year of a new job? *Injury Prevention*, 2007; 13:37-41.