



HEALTH AND SAFETY FOR WORKING WOMEN

Women make up a significant proportion of the employed population in North America (e.g. 47 percent of all Canadian workers and almost half of the American workforce). Men and women are not the same and the majority of jobs they do, their working conditions and how they are treated by society are not the same. Various differing factors can affect the hazards they face at work and the approach that needs to be taken to assess and control or eliminate the risks. It is therefore important to recognize differences and take a "gender sensitive" approach to health and safety at work by assessing and understanding several relevant factors.

For example, in recent years, a number of studies determined that there are significant occupational health and safety concerns for tradeswomen employed in the construction industry or closely related trades. In one notable study, the study group was based on purposeful, rather than random, sampling. Trades groups that were represented included carpenters, welders, electricians, plumbers, labourers, mechanics and millworkers.¹ Major categories of identified specific concerns included:

- ☞ exposure to chemical and physical agents,
- ☞ injuries from lifting, bending, twisting, falling, and lacerations,
- ☞ lack of proper education and training,
- ☞ safety risks related specifically to tradeswomen (e.g. inappropriate protective clothing and tools),
- ☞ overcompensation for gender,
- ☞ unsatisfactory restroom facilities, and
- ☞ psychosocial stressors (incl. long hours and night-time working).

*Occupational medicine research is carried out largely only on men – but the findings are considered to apply to women as well. Legislation, risk assessment and measuring standards are often based on men.*²

Taking into account general factors across all industry sectors, one can conclude that women and men:

- ☞ are concentrated in certain jobs, and thus face hazards particular to those jobs,
- ☞ are physically different, including in regard to reproduction, and
- ☞ have different responsibilities in the home — working women very often have two jobs, at work and in the home.

In terms of occupational fatalities and injuries, although about only 60 percent of women participate in the workforce in the U.S. in 2003, they still experienced roughly 8 percent of occupational fatalities and 35 percent of nonfatal injuries and illnesses. During the 1992–2003 period, homicide In the U.S. (with the majority of homicides for both sexes being shootings) was the leading source of fatal injuries for women. Musculoskeletal disorders were the primary source of nonfatal injuries and illnesses for women. Based on American trends, there has also been a gradual increase in the proportion of female work-related deaths resulting from highway accidents over the past few years in North America.³

¹ *Tradeswomen's perspectives on occupational health and safety: A qualitative investigation:* Goldenhar-LM; Sweeney-MH, American Journal of Industrial Medicine, May 29, 1996

² *Gender analysis lacking in research:* Judit Hadnagy, National Institute for Working Life (Sweden), Working Life Newsletter No. 3, 2006

³ *Occupational injuries, illnesses, and fatalities among women:* Hoskins, A. Monthly Labor Review Online. 2005. <http://www.bls.gov/opub/mlr/2005/10/art4full.pdf>

Importance of effective health and safety policies for female employees.

Women face a number of specific issues related to their health and safety in the workplace. For this reason, more specific risk assessments need to be undertaken by organizations to develop and implement the most effective policies and programs. Among those issues are:

Need for specifically designed personal protective equipment:

For women working in so-called non-traditional occupations (e.g. trades, law enforcement, fire fighting, etc.), there has often been concerns surrounding the adequacy and appropriateness of personal protective equipment (PPE). For a long time, women had to cope with ill-fitting and inappropriate PPE — including foot and head protection, protective clothing, breathing apparatus, etc. — which had been originally designed for men. Fortunately today, with the increase in the numbers of women working in non-traditional occupations, PPE manufacturers and suppliers have recognized the need to specifically design female-applicable equipment and protective clothing in order to meet the growing demand.

Health concerns during pregnancy:

Nowhere is it more important to implement effective health and safety policies for female workers than when a woman is pregnant. Most notably, studies have shown the importance of protecting the woman and her foetus from such hazards as exposure to lead, mercury, radiation, and other hazardous substances. As well, allowances must be made for the mental health of a pregnant woman by eliminating or reducing as many stressors as possible in the workplace. As a result, organizations need to consider various potential forms of accommodation for a pregnant employee while in the workplace. For example, there may be a need to alter the woman's physical work station or working conditions to allow for additional periods of rest and to prevent long periods of sitting or standing.

Once a worker notifies an organization that she is pregnant, management and health and safety staff should review the risk assessment for her specific work and identify any changes that are necessary to protect her health and that of her unborn baby. The worker should be involved in the process and review the assessment as her pregnancy progresses to see if any further adjustments are needed.

Exposure to hazardous substances:

In 2011, the University of Alberta initiated a study that may shed light on health effects that exposure to welding fumes and metal dust have on women in metalworking and electrical trades. Metal-working jobs include welders, pipefitters, steamfitters and boilermakers.⁴ Alberta has seen a significant number of women in these trades due to a shortage of tradespersons in the province. It is estimated that about 1,800 women work today in these nontraditional trades in the province. As a result, the study targets Albertan women who have taken part in apprenticeship training in one of the relevant trades at any time during the last five years. The study will look at health issues surrounding respiratory health, skin problems, nickel sensitization and musculoskeletal disorders. There is also a concern about the possible health effects on pregnant female welders, since no one, not even [Alberta Workplace Health & Safety](#), knows what the risks are for pregnant welders. Studies that are available deal only with male welders, and many of those date back to the 1960s.⁵

Ergonomic factors:

Ergonomics mainly involves implementing features whereby the working environment, primarily the physical working environment, is designed to accommodate the specific needs of the worker. A number of ergonomic factors need to be considered with respect to women given their different anatomy, including those related to work stations (e.g. adjustable chairs, tables, counters, shelving,

⁴ *Alberta study probes effect of dust, fumes on female workers:* Canadian OH&S News, April 11, 2011

⁵ *Alberta university seeks women in the trades:* Chris Zdeb, Postmedia News, April 27, 2011

etc.), noise, lighting, ventilation, temperature and the functionality of office equipment. By example, failing to consider ergonomic-related concerns can result in various forms of **musculoskeletal disorders (MSD)**, including repetitive strain injuries, sore muscles, aching elbows, painful shoulders — all injuries that are clustered into a category associated with repetitive use or abuse of the tissues and joints. Typically, MSDs occur from repeated or sustained activity, and often develop more quickly when combined with poor postures, mechanical stress, cold exposure, vibration or excessive loads.⁶ As noted previously, MSDs are the primary source of nonfatal injuries and illnesses for women, especially for those working in office environments, retail outlets, health care and long-term care facilities.

Organizations need therefore to carry out ergonomic assessments and related preventive measures, such as adapting workstations to meet the ergonomic needs of a female worker, and training female workers on proper body mechanics and lifting techniques.

Violence in the workplace:

For centuries, harassment on the job — most notably sexual harassment — has been a major workplace issue for women. In more recent years, numerous studies have been done on the impact of violence in the workplace for women engaged in selected occupations. In particular, the issue increasingly has surfaced in work related to health care, social work, educational services, and the service and retail sectors. With so many women working in these traditionally female-dominated occupations, internal and external violence represents a major health and safety concern. For example, in both Canada and the U.S., women in health care and long-term care work can face extraordinary violence from patients, patients' family members and co-workers. A Statistics Canada survey in 2006 noted that 28 percent of responding nurses said that they had been physically assaulted by a patient in the past year, while 19 percent reported emotional abuse at the hands of physicians and nurse co-workers.⁷ In the U.S. in recent years, nurses have also sounded the alarm about workplace violence, most of it committed by patients. According to the U.S. [Bureau of Labor Statistics](#), half of all nonfatal injuries resulting from workplace assaults occur in health care and social service settings.⁸ A 2008 study by Albert Banergee, a doctoral candidate at York University, found that 43 percent of personal-support workers in Canada endured physical violence on a daily basis — including slaps, bites, punches, hair pulling, wrist twists and spitting — nearly seven times the violence experienced by workers in Scandinavian countries.⁹ Fortunately today, professional associations, employer bodies, labour unions, and women's groups are working closely together to eliminate or minimize the risks from potential violence and to improve applicable training for women in these and other sectors.

Distinctions found in health and safety laws related to women.

In the U.S. and Canada, there are often no specific requirements under occupational health and safety (OHS) legislation that address general 'ergonomic-related' issues. However, under the **“general duty clause”** or provision under OHS laws, employers are required to take reasonable precautions to protect workers from associated hazards such as those that can lead to musculoskeletal disorders.

Few jurisdictions have specific provisions related to protecting the health and safety of pregnant workers, including additional requirements following birth such as for breastfeeding. One such jurisdiction, the province of Quebec, has had a policy since 1981 that takes pregnant workers out of the workplace when they work in trades where there might be some harm to the unborn child, even though there may be no documented proof. However, Quebec is the only jurisdiction in Canada that has such a provision. Other jurisdictions rely on the employers' general duty clause under OHS laws.

⁶ *Workplace musculoskeletal injuries come in many forms: The human factor a focus on ergonomics*: Sharon Taylor, Canadian Occupational Safety, Volume 44, Issue 4, July-August 2006

⁷ *Nurses' group targets workplace violence*: Canadian OH&S News, OHS Canada, December 16, 2008

⁸ *Nurses Step Up Efforts to Protect Against Attacks*: David Tuller, New York Times, July 8, 2008

⁹ *Long-term-care workers face 'extraordinary' violence - study*: Brodie Fenlon, Globe and Mail, March 10, 2008

Regulations by the U.S. [Occupational Safety & Health Administration](#) (OSHA) requiring a doctor's order for light duty are the same for pregnant employees as for any other employee. No set rules exist that an employer must follow for assigning light duty to an employee that is ordered by a doctor. The employer is required to treat pregnancy the same as any other medical condition — allowing light duty for other medical reasons but not for pregnancy itself.

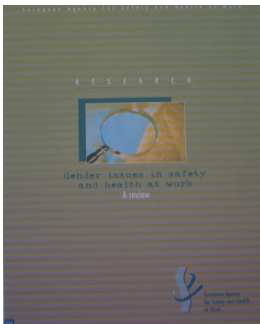
Some jurisdictions may have additional provisions — including medical surveillance and occupational exposure limits — to deal with the specific exposure of pregnant workers to hazardous substances (e.g. lead, mercury, cadmium, nickel, pesticides, etc.). Organizations must refer to each jurisdiction's OHS requirements where their workplaces are located in order to determine any such specific legislated provisions. Specific provisions may be found in the regulations, codes of practice or guidelines.

More research needed to determine specific occupational risks for women.

There is a lack of information concerning whether environmental-related health effects are more or less prevalent or manifested differently in women compared to men. Previously, most research in the area of toxicology and environmental and occupational health involved male subjects.¹⁰

As indicated above, there are obvious and possible factors that may result in gender differences in hazardous substance exposure and health effects. These are highly neglected research areas, which need considerable focus in the future. In general, it is essential to identify risk groups such as women in the population in order to achieve reliable risk assessment and cost-effective risk reduction.

Recommended Reading:



“Gender Issues in Safety and Health at Work: A Review”
by European Agency for Safety and Health at Work
(Office for Official Publications of the European Communities, 2003)

Recommended Websites:

- ◆ Women and Health at Work - European Agency for Safety and Health at Work: http://osha.europa.eu/en/priority_groups/gender/index.html
- ◆ Women's Safety and Health Issues at Work – U.S. National Institute for Occupational Safety and Health: <http://www.cdc.gov/niosh/topics/women/>
- ◆ Women in the Workplace and Occupational Health and Safety - Communications, Energy and Paperworkers Union of Canada: <http://www.cep.ca/page/women-workplace-and-occupational-health-and-safety>
- ◆ Occupational injuries, illnesses, and fatalities among women: Hoskins, A. Monthly Labor Review Online. 2005. <http://www.bls.gov/opub/mlr/2005/10/art4full.pdf>
- ◆ Preventing musculoskeletal disorders – Canadian Institute for Work and Health: <http://www.iwh.on.ca/preventing-msds>
- ◆ Women's Guide to Pregnancy on the Job in Canada – Commission for Labor Cooperation: http://www.naalc.org/migrant/english/pdf/mgcanwpr_en.pdf

¹⁰ *Metals and Women's Health*: M. Vahter, M. Berglund, A. Askesson, and C. LideHn, <http://www.idealibrary.com> on, July 31, 2001

“Healthier organizations mean more productive employees.”