



## HAZARDS IN HEALTHCARE WORKPLACES



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*This document is intended to help workers, JHSC members, supervisors and managers understand their role of workers in occupational health and safety.*

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Most of us go to work in health care believing that it must be a healthy and safe place to work. Surprisingly, working in health care settings — whether in a hospital, nursing home, home for seniors, group home, or in the community providing care in clients' homes — can be as hazardous as working in other environments.

### WHAT ARE THE HAZARDS IN HEALTH CARE WORKPLACES?

#### PHYSICAL HAZARDS

Common physical hazards are heat, noise and vibration. All can be found in excess in some health care settings. Other physical agents such as lasers, X-rays, or other forms of radiation used on patients can be harmful to workers if not properly controlled.

#### BIOLOGICAL HAZARDS

Working in health care and community care, staff may be exposed to a large number of biological hazards such as bacteria, viruses, fungi and parasites. Patients, residents and clients may be carrying germs of which they are unaware. If proper controls are not in place, workers may unknowingly be exposed to viruses such as hepatitis B or bacteria such as E.Coli. Moisture in the work environment can also introduce

fungi such as mold. Biological hazards pose a significant risk to health care and community care workers if not properly controlled. An Infection Control program will help to minimize or reduce this risk to staff.

## CHEMICAL HAZARDS

Health care environments can house a vast array of chemicals. Examples of hazardous chemicals may include disinfectants and antiseptics; many chemicals used in laboratories; detergents; cleaners and anesthetic gases. Even some drugs administered to patients can be harmful to staff if not properly handled. In addition to the Designated Substance regulations; the Control of Biological and Chemical Agents Regulation contains occupational exposure limits (OELs) to restrict the contaminant amount and duration of workers' exposure to hazardous chemical substances. WHMIS and consumer product safety programs also help to eliminate or reduce the risk of exposure.

### *Designated Substances*

Designated substance means a biological, chemical, or physical agent or combination thereof, prescribed as a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited or controlled. The Ministry of Labour considers designated substances so dangerous that specific pieces of legislation have been written about them. These pieces of legislation are called Designated Substance regulations (O.Reg. 490/09) under the Occupational Health and Safety Act (OHSA). One example of a designated substance found in almost every health care setting is mercury. Mercury can be found in some thermometers and blood pressure cuffs. Hazardous Substance Regulation (O.Reg. 141/82; Designated Substance-Mercury) outlines control programs for the use, handling, storage and disposal of mercury. Other designated substances that are found in many health care settings are asbestos, silica (used in crafts), ethylene oxide (used in sterilizing processes), benzene (found in some laboratories), lead (wherever soldering is done) and isocyanates (in insulation and some paints).

### *Antineoplastic Drugs*

Chemotherapy drugs, and drugs used in cancer treatment are called antineoplastic drugs and are extremely harmful to the body. Healthcare workers can be exposed to these drugs doing their normal work tasks such handling, preparing, administering and disposing the drugs. Workers that can be exposed to antineoplastic drugs include pharmacists, waste workers, shipping workers, physicians and nurses. Long term exposure to these drugs is correlated with organ damage such as liver or kidney damage, infertility and cancer. These drugs are carcinogenic and are regulated by Healthcare and Residential Facilities regulations (O.Reg. 67/93) under the OHS Act which states the need for a policy in place in case of a worker exposure to antineoplastic drugs, and lists the necessary control and preventative measures required in the healthcare facility.

## ERGONOMIC HAZARDS

Lifting and transferring patients, residents, and clients can be very dangerous if the caregiver is not properly trained or if the proper lifting devices are not available. Many caregivers experience sprains and strains related to this kind of activity. Other workers may have jobs requiring repetitive movements that can result in cumulative trauma disorders. Some workstations, whether in kitchens or laundries, or at computer terminals, require awkward postures to be sustained for long periods, which can cause injuries to the muscles and bones.

## PSYCHOLOGICAL HAZARDS

Mental health is one of the leading trends in health & safety hazards currently, as it can lead to long term mental health concerns and decline in work productivity. These hazards are difficult to quantify and measure, because the normal stress level varies between individuals. However, a healthcare worker is exposed to highly stressful situations and job demands which can have a lasting effect on their mental health.

### *Violence in the Workplace*

Violence in the workplace can be a hazard to staff in health care and community care environments. Violence or aggression from patients, visitors, residents, staff and clients could take the form of physical, emotional and/or mental abuse. For more information on violence in healthcare settings please visit [www.workplace-violence.ca](http://www.workplace-violence.ca)

### *Fatigue and Shiftwork*

Most health care settings require some sort of shift work. Shift work can be very stressful to workers and their families, and take a toll on sleep, mental health and physical health. All of these combined puts the worker at risk of fatigue, which is defined as feeling tired and sleepy caused by prolonged stress, anxiety, and high mentally and physically demanding work load.

### *Burnout and Compassion Fatigue*

Working with people who are seriously or even terminally ill day in and day out can be very emotionally wearing. In our current economic climate, with layoffs and cutbacks, workers everywhere are carrying extra workloads, which can result in “burnout.” Since the majority of people working in health care are women, conflicts with competing and changing roles in the family, as well as from work issues, can cause tremendous stress, which takes a toll on mental health.

### *Chronic Mental Stress*

Healthcare workers are at a risk of experiencing chronic mental stress, which is defined as the injury appropriately diagnosed to be caused by a work related, high intensity and prolonged duration stressor during the time the worker is employed. An example would be high routine work stress, or prolonged high workload which puts the worker in higher than normal tension and stress levels.

### *Traumatic Mental Stress*

Working in a healthcare setting also puts the worker at risk of experiencing or observing any kind of traumatic events which can cause an appropriately diagnosed mental stress injury. Healthcare workers can be exposed to highly traumatic events such as death, extreme injury or violence which can cause a strain on their mental health.

### *Post-Traumatic Stress Disorder*

Post-Traumatic Stress Disorder (PTSD) is a mental health condition caused when a traumatic event is experienced or witnessed by a person, and any signs or symptoms of that experience continue for a long time after the event such as nightmares, anxiety or fear. Healthcare workers such as nurses have been shown to have a 40% prevalence rate for PTSD and some risk factors which could be correlated with PTSD

are losing a loved one or job or home, witnessing death or painful events, and violence at work. Such events are hazardous because they create feelings of helplessness, fear, anxiety and horror in the witness.

## HOW CAN I BE SAFER?

There are ways to make your potentially hazardous workplace healthier and safer. You can make sure to:

- know what hazards exist in your workplace
- use the personal protective equipment provided by your employer
- participate in health and safety training sessions
- follow policies and practice safe work procedures
- report to your supervisor any circumstances that you believe to be unsafe for yourself or other workers
- Keep your supervisor or employer informed of any incident or change in personal health condition.

There are limits to what you can do as an individual. Making changes in your organization may require the help of your managers, your JHSC or your health and safety representatives, and a thorough review of the relevant Regulations and Standards. Making your workplace healthy and safe for everyone works best when there is a team approach — that is, when workers, managers, JHSC and health and safety professionals all work together.

## RESOURCES

Detailed information on the healthcare trends, research and results can be found on the latest PSHSA Healthcare Trends Report. More information on hazards and regulations in the health care workplaces can be found on:

<https://www.ontario.ca/laws/regulation/090490>

<https://www.ontario.ca/laws/regulation/930067#BK20>

<https://www.cdc.gov/niosh/topics/healthcare/default.html>

<https://www.cdc.gov/niosh/topics/hazdrug/antineoplastic.html>