

Canadian Centre for Occupational Health and Safety \* Centre canadien d'hygiène et de sécurité au travail

# **Occupations and Workplaces**

# Nurse (Registered)

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# What should I know before reading about this occupation?

This profile summarizes the common issues and duties for a registered nurse. Nurses can work in a wide variety of health care settings or workplaces. Depending on where you live, the duties of a nurse (registered, licensed practical, aid versus other types of nursing) may vary.

Because each workplace is unique, there is no way to predict all of the possible hazards you may encounter. This summary focuses on the major job duties that most nurses would have in common when working in a hospital.

## What, briefly, does a registered nurse do?

Main duties of a registered nurse include:

- assess, plan, implement and evaluate a patient's care along with other members of the health care team.
- administer medications and treatments as ordered by a doctor.
- monitor, record and report symptoms or changes in a patient's condition.
- use proper techniques for dressing changes, insuring infection control, etc.
- use or monitor medical equipment.

- assist in surgery and with other medical procedures.
- supervise nursing assistants and other nursing staff.
- provide safety and health education to individuals and families.
- cleaning or disinfecting patients' beds and rooms.

Some nurses may specialize in other fields such as occupational health or public health. Occupational health nurses can provide employee health education programs and care in private businesses or industries. Public health nurses offer health education through either public health departments or through home visits.

# What are some health and safety hazards associated with being a nurse?

Hazards typically fall into one of six general categories as listed below. For more information on that issue, prevention, or how to work safely with a product, click on the links where provided throughout this document.

#### Biological

Nurses can be exposed to contagious and infectious diseases including those that can be transmitted through the air (e.g., <u>TB - tuberculosis</u>), blood-borne diseases such as <u>AIDS</u>, hepatitis <u>B</u> and <u>C</u> and hand to hand transmission (e.g., <u>Clostridium difficile</u>). There is also the risk of exposure to <u>multi-drug resistant organisms</u> such as <u>multi-drug resistant tuberculosis</u> (<u>MDR-TB</u>), <u>Methicillin-resistant staphylococcus aureus (MRSA</u>) and others.

Nurses are also at risk for exposure to novel (new) viruses, such as <u>coronavirus (COVID-19)</u>, <u>SARS</u>, etc.

As a consequence of the need for frequent <u>hand washing</u>, skin conditions such as <u>dermatitis</u> may occur.

Illness as the result of a <u>needlestick injury</u> is also a concern.

#### Chemical

In a hospital environment, nurses may encounter:

- various chemicals used for general janitorial cleaning as well as for disinfecting and sterilizing.
- anesthetic gases as well as waste anesthetic gases.
- <u>latex</u> (in gloves and equipment).

• exposure to other <u>chemicals</u>, <u>compressed gases</u>, products, pharmaceuticals and medicine, including <u>opiods</u> and cytotoxic (anti-neoplastic) drugs.

# Ergonomic

There are many situations where physical demands involve force, repetition, awkward postures and prolonged activities. These include:

- walking or <u>standing</u> for long periods of time.
- <u>lifting</u>.
- overexertion (reaching, carrying, etc.).

#### Physical

Nurses can be exposed to:

- radiation: both <u>x-rays</u> and radiation from radioisotopes.
- lasers.

### Safety

In a hospital, there are many situations where there is equipment in various places, liquid on floors, etc. The main hazards from these situations are <u>slips, trips and falls</u>. There is also a risk of items falling onto the person.

Nurses may also be exposed to burns or scalds from hot sterilizing equipment, and stabs or cuts from sharp objects.

#### Psychological

Nurses often experience forms of <u>violence at work</u>, including when <u>working alone</u> and <u>working</u> <u>alone with patients</u>.

Responsibility of care, emergencies, and the need to make certain decisions when others cannot be found can increase the stress experienced by some people. Exposure to serious traumatic events (or consequence of the event) is another cause of stress. As with most emergency services, there will be long periods of quiet or routine interrupted abruptly by periods of intense <u>stress</u> or activity.

Most nurses work <u>shifts</u> or <u>extended work days</u> which may cause <u>fatigue</u> or have health effects.

However, it is important to note the positive aspects of being a nurse. It is a highly respected profession and highly valued in the community. Also, there is usually a high sense of team membership.

#### Are there any long-term health effects of being a nurse?

Several target organs may be adversely affected by prolonged exposure to chemicals including the respiratory, neurologic, reproductive, dermal, and hematopoietic systems. For example, ethylene oxide has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1).

Other long-term health effects may include:

- adverse effects from long-time exposure to chemicals like medications (e.g., antineoplastic drugs), sterilizing agents (e.g., glutaraldehyde), and anesthetic gases.
- fatigue.
- lower back pain.
- diseases such as tuberculosis and hepatitis B and C.
- infectious skin irritation and dermatoses from frequent use of soaps, detergents and disinfectants.
- latex allergy.

Source: <u>Nurse, general (institutional)</u> From: International Hazard Datasheets on Occupations, International Occupational Safety and Health Information Centre (CIS).

#### What are some preventative measures that can be taken?

- Hand washing and <u>routine practices</u> and other measures are extremely important for the reduction of infections. Be sure to use moisturizers to prevent your skin from drying.
- Learn proper techniques to avoid needlestick injuries.
- Always use the correct personal protective equipment (<u>PPE</u>) or other barriers for the task. In some cases, latex gloves will not be appropriate (e.g., cleaning with certain chemicals).
- Wear appropriate <u>footwear</u> (for walking/standing, as well as protection from dropped objects).
- Learn safe patient lifting techniques create a safe patient handling program.
- If a job requires work in an awkward position (e.g., with hands above shoulder level) be sure to take frequent breaks.

- Follow a recommended <u>shift work</u> pattern, and be aware of the hazards associated with shift work.
- Take steps to encourage better sleep, including "good" eating habits that help encourage sleep.
- Consider offering a debriefing or session after a critical event to help reduce the impact from <u>stress</u>.
- Ask your workplace to establish safe procedures for working alone or develop procedures where this situation can be avoided altogether.
- Keep all hallways and passages clear of clutter and equipment.
- Install and maintain adequate ventilation for the area.
- Keep all radiation levels to a minimum and wear a radiation dosimeter, as recommended by the radiation safety officer or regulatory authorities.
- If work is in the nuclear medicine department or involves working with patients being treated or tested by such departments, staff should be given appropriate training to prevent or control exposure to radiation sources.

#### What are some general safe work practices to know?

Nurses will need to know:

- the risks associated with blood-borne diseases (e.g., <u>AIDS</u>, hepatitis <u>B</u> and <u>C</u>).
- hand washing.
- routine practices.
- proper selection, use, maintenance and storage of <u>PPE</u>, where appropriate.
- selection of footwear and respiratory protection.
- prevention of <u>needlestick injuries</u>.
- manual material handling (lifting) techniques.
- safe patient handling.
- information about shift work.
- information about fatigue.
- violence (general).
- what to do when working alone (general information) and working alone with patients.
- how to work safety with compressed gases.

All workers should:

- follow hospital or company safety rules.
- know about WHMIS and SDSs.
- know your <u>hazard reporting</u> procedures.
- follow good housekeeping procedures.

### Where can I get more information?

Because of the wide variety of workplaces where nursing may occur, and the vast range of activities done and materials used by nurses, all situations cannot be covered in this document.

NOTE: If you have health concerns, ask your doctor or medical professional for advice.

If you have any questions or concerns about your specific workplace, you can ask one or more of the following for help:

- your health and safety committee or representative.
- your union.
- your safety department.
- your supervisor or manager.
- your professional association.
- check with your local library.
- your local government department responsible for health and safety.

General information is available in OSH Answers or through the CCOHS person-to-person Inquiries Service.

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