

Occupations and Workplaces

Plumber

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What does a plumber do?

A plumber is a person who installs, repairs and maintains plumbing fixtures or systems in businesses, industries or residences.

The main duties of a plumber are to:

- Haul supplies, measure, cut, shape, assemble and join various materials (e.g., pipes, fittings, fixtures) with various tools, servicing the water supply, waste disposal, and heating systems.
- Use, clean, and maintain various equipment.
- Read, prepare, or interpret blueprints and drawings.
- Conform with building codes and other regulations.
- Prepare cost estimates and documentation for clients.
- Supervise apprentices or other workers.

What are some health and safety issues for plumbers?

Plumbers work in a variety of settings, some of which may contain hazards. The main occupational hazards for plumbers to be aware of include:

- Exposure to hazardous products such as: [lead](#), [sulfur dioxide](#), [asbestos](#), [silica](#), [mould](#), adhesives, solvents, solder, dusts, and other [hazardous products](#).
- Being close to [flammable](#) products.

- Exposure to biohazards, including raw sewage when working on sewage pipes or septic tank outlets, when laying new pipe in soil, or [flood clean-up](#).
 - Potential infection from bird or rodent droppings:
 - [histoplasmosis](#)
 - [psittacosis](#)
 - [hantavirus](#)
 - Working in [awkward positions](#) or performing [awkward manual tasks](#) that increases the risk of musculoskeletal injuries.
 - [Lifting](#) heavy or awkward objects.
 - Exposure to [electricity](#), [extreme temperatures](#), or [noise](#).
 - Working in [confined spaces](#).
 - Working at heights (e.g., on [platforms/scaffolding](#) or [ladders](#)).
 - Risk of [eye injury](#) from flying particles.
 - [Slips, trips and falls](#), especially when working in wet environments.
 - Burns from hot equipment parts, steam lines, and the release of hot water or steam.
 - Working with various tools (both [hand tools](#) and [powered tools](#)).
 - [Stress](#).
 - [Shift work](#) or [extended work days](#).
 - [Working alone](#).
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What are some good work practices for plumbers?

Safety Procedures

- Follow company safety rules.
- Get training on the potential hazards at the job sites where you are assigned.
- Learn about chemical hazards, [WHMIS](#) and [SDSs](#).
- Use safety data sheets (SDSs) to learn about the chemical properties, health hazards, and required personal protective equipment (PPE) that you will need.
- Know how to [report a hazard](#).
- If you will be working with specific substances – such as lead, asbestos or mould – follow the required work practices for the province or territory in which you are working.

- Follow a recommended [shift work pattern](#), and know the associated hazards.
- Practice safety procedures for:
 - [Confined space](#) entry
 - [Working at heights](#)
 - Working with [hand tools](#), and [power tools](#)
 - [De-energizing and locking out](#) machinery and equipment before performing maintenance
 - Selection, use, and maintenance of [personal protective equipment](#)
 - [Lifting](#)
 - [Shift work](#)
 - Avoiding [slips, trips and falls](#)
 - [Heat exposure](#)

Working Safely with Sewage

Health effects of exposure to sewage and contaminated soil include:

- Tetanus – caused by a toxin produced by bacteria common in soil and sewage.
- Leptospirosis – caused by a parasitic worm.
- [Hepatitis](#) A, B or C.
- Bacteria such as *E. coli*, and parasites such as *giardia* and *cryptosporidium*.

Human pathogens from soil and raw sewage can enter the body through the nose or mouth, particularly if a person drinks contaminated water or by touching contamination and then touching your mouth or nose. Exposure can also occur through open wounds or by inhaling (human pathogens in dust, for example).

- Avoid exposure to sewage by wearing gloves, coveralls, rubber boots, eye protection, washing your hands, and decontaminating your equipment after use.
- Do not eat or drink while working in a potentially contaminated area. Wash your hands before meals.
- After working with raw sewage or soil, wash immediately with soap and water. Do not use solvents to wash your hands as the solvents can cause irritation that may lead to skin infections. Learn more about [handwashing and the risk of infections](#).

- Change out of work clothes before leaving the work site. If any sewage has gotten onto your clothes, change them right away. Soiled work clothes should be sealed in a plastic bag and laundered separately from other clothing. Wash your hands thoroughly after handling the clothing.

Personal Protection

- Use fall protection and other precautions when working at heights.
- Use [eye protection](#) when cutting or grinding to avoid eye injuries from flying particles.
- Use appropriate [respiratory protection](#) when there is a potential to be exposed to [harmful levels of airborne contaminants](#) (e.g., soldering fumes, asbestos, mould, lead, silica, or other substances). Make sure to follow the requirements of the respirator program, including fit testing, and [care and maintenance](#).
- Use appropriate personal protective equipment for the task (e.g. hard hats, eye protection, face protection).
- Wear appropriate [footwear](#) (sturdy shoe with a protective toe box and a non-slip sole)
- If working on hot pipes, use heat-insulating gloves and eye/face shields and make sure to drain pipes before you open them.
- To avoid electric shock, only use [power tools](#) that are safe for a wet environment and that have a ground fault circuit interrupter (GFCI). Be cautious when working on metal pipes – if you feel tingling when touching a metal pipe, stop work immediately.
- Install and maintain good [ventilation](#).

Material Handling

- Avoid awkward body positions and repetitive manual tasks, or take frequent breaks. Try to rotate your tasks and take a quick break every 30 minutes.
- Learn safe [lifting](#) techniques.

Maintenance

- Keep tools and equipment, and their safety features, in good working order.
- Keep cutting equipment sharp so they will work properly. Cut away from your face and body to avoid cuts and punctures.
- Keep work areas clear of clutter and equipment. Place, stack, or store materials and equipment so they will not cause injury to yourself or other workers.
- Follow [good housekeeping](#) procedures – clean up spills quickly; empty waste containers often; discard oily rags and other flammable waste materials safely.

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