

Workplace Health and Well-being

Reproductive Health - Reproductive Hazards

On this page

[What are reproductive hazards?](#)

[Can reproductive hazards affect everyone?](#)

[Are all issues with reproductive health work-related?](#)

[Are there occupational health and safety laws that protect reproductive health?](#)

[As an employer, what should I know about reproductive hazards?](#)

[What are some additional considerations for reproductive health?](#)

[As a worker, what should I know about reproductive health?](#)

What are reproductive hazards?

Reproductive hazards are, generally speaking, hazards that can interfere with a person's ability to procreate. Reproductive hazards may affect the sexual function and fertility in a person, including conception, pregnancy, and development.

Exposure to these hazards can result in infertility, miscarriage, premature labour, fetal malformations, or genetic defects in offspring that may impact the child's health.

Please also see our [OSH Answers Fact Sheet Reproductive Health:- Pregnancy in the Workplace](#).

Can reproductive hazards affect everyone?

Yes. Reproductive hazards can be harmful regardless of a person's sex*.

Some risk factors are factors that cannot be changed. These factors include age, sex, health conditions, and genetic factors.

Risk factors that are related to exposure may be controlled or eliminated. The impact of these reproductive hazards usually depends on the duration (how long) and level of exposure (how much) to the substance or agent.

The impact of reproductive hazards may not be immediately apparent and can take years or even decades to develop. Similar to other hazards, individuals with underlying health conditions or weakened immune systems may be more susceptible to reproductive hazards. Therefore, it is important to protect against reproductive hazards and control exposure regardless of perceived risk factors.

*Note that sex refers to biological characteristics (e.g., male, female, or intersex), whereas gender refers to social identity (e.g., woman, man, non-binary, two-spirit).

Are all issues with reproductive health work-related?

No. Most reproductive disorders are not work-related; however, there are links between certain hazard exposures and adverse human reproductive outcomes.

Please note that exposure to reproductive hazards can cause harm at home and at work. While this OSH Answer focuses on work-related exposures, this information can also be applied outside of work.

Some examples of reproductive hazards include:

- [Lead](#)
- [Mercury](#)
- Certain solvents
- Some pesticides
- Certain pharmaceuticals
- [Ionizing radiation](#)
- Certain viruses, bacteria, and parasites
- [Loud noise](#)
- [Extreme heat](#)
- [Violence](#)
- [Stress](#)

Workplace exposures to reproductive hazards are preventable with proper identification and control.

Are there occupational health and safety laws that protect reproductive health?

Yes. Occupational health and safety laws protect workers from reproductive hazards in the workplace. These laws are enforced by provincial, territorial, and federal governments. All workplaces must meet the minimum standards set out by the occupational health and safety acts and regulations that apply to their jurisdiction.

For example, the *Hazardous Products Act* and *Hazardous Products Regulations* set out the requirements for suppliers of hazardous products intended for the workplace to disclose the hazards associated with their products. Under occupational health and safety legislation, these requirements are commonly referred to as the Workplace Hazardous Materials Information System or WHMIS. Reproductive hazards fall into the following [health hazard classes](#):

- **Germ Cell Mutagenicity.** Refers to the ability of a product to cause or may cause an increased occurrence of heritable gene mutations, including heritable structural and numerical chromosome aberrations in germ cells, occurring after exposure to a mixture or substance. Exposure to substances with Germ Cell Mutagenicity can potentially result in genetic mutations that can be passed on to future generations.
- **Reproductive Toxicity.** Refers to the ability of a product to damage or is suspected of damaging fertility and/or the unborn child (baby) after exposure to a mixture or substance. Exposure to substances with reproductive toxicity can result in adverse effects on sexual function, fertility, development of the fetus, and effects on or by lactation.

There is also legislation that relates to specific reproductive hazards, including [occupational exposure limits](#) for chemicals and radiation, or by protections offered to pregnant and nursing women. Please review the applicable legislation for your jurisdiction.

As an employer, what should I know about reproductive hazards?

Employers must identify which hazards may harm reproductive health and at what exposure level harm can occur. To identify these hazards effectively, an employer may need to consult with professionals knowledgeable in the field of study, verify legislation and standards, review safety data sheets, refer to literature, etc. It is also important to stay up-to-date with good practices and evolving industry trends and research.

Hazard Identification, Risk Assessment, and Control

Employers should perform a [hazard identification and risk assessment](#) to identify potential reproductive hazards in the workplace. Consider chemical, physical, biological, psychosocial, or ergonomic factors that have the potential to cause harm.

After identifying the hazards, review the probability and severity of exposure to assess the risks of each hazard. Then, implement measures to control or eliminate exposure. Consider the hierarchy of control when implementing control measures:

- Eliminate the reproductive hazard.
- Substitute the reproductive hazard for a less hazardous alternative.
- Implement engineering controls, for example, making sure the workplace has proper ventilation to reduce exposure to airborne contaminants. This measure may include installing exhaust systems or providing adequate ventilation in work areas.
- Enclose hazardous processes, or isolate a worker from the reproductive hazard.
- Implement safety procedures and work practices to reduce exposure to reproductive hazards. This measure may include not allowing eating, drinking, or smoking in areas where hazardous products are present, ensuring proper storage and disposal of hazardous products, and providing training on safe handling practices.
- Establish a system for workers to report concerns or symptoms related to reproductive health.
- Encourage workers to take regular breaks to rest and rehydrate, especially if they are exposed to heat or physical exertion.
- Provide workers with appropriate personal protective equipment such as gloves, protective clothing, and respirators to reduce their exposure to hazardous substances.

Training and Communication

Workers must be informed about the reproductive hazards they may be exposed to and how they can protect themselves. Employers must provide training on the safe use of products and equipment, proper hygiene practices, and reporting procedures in the event of an exposure. Encourage reporting any symptoms or concerns relating to reproductive health and provide medical attention if required.

Depending on the situation, individual counselling may also be recommended.

Monitor Exposure

Employers may be required to implement a monitoring program if reproductive hazards are present in the workplace. This requirement may include an exposure assessment for workers and require exposure monitoring. Sampling may consist of air monitoring, radiation dosimetry, or medical surveillance. Employers should investigate any overexposure or incident. They should also investigate any clusters of adverse reproductive events in the workplace. All records of exposure and biological monitoring results should be kept on file.

What are some additional considerations for reproductive health?

It is beneficial to provide workers with information and education specifically addressing reproductive risks. Informing workers of the risks can help them make informed decisions. Workplaces may be able to offer accommodations or transfers to workers who are concerned. In some cases, these protections may be required by law. Working with healthcare professionals and using an effective process can help find suitable accommodations.

Avoid creating mandatory restrictions for certain groups of people, such as having work policies that apply only to women. It is important to remember that reproductive hazards can affect everyone.

As a worker, what should I know about reproductive health?

It is important to be aware of potential reproductive hazards in the workplace and take steps to protect your reproductive health.

If you are planning to conceive, you should learn about the hazards in the workplace that may affect your reproductive health and, as always, comply with safety regulations and workplace practices. You should also be informed about non-occupational health issues and develop good health habits before conceiving. Reviewing workplace health benefits and leave policies is also a good practice.

To protect reproductive health, you should:

- Understand the risks of actual and potential hazards in the workplace. Consider chemicals, radiation, heat, and noise.
- Practice good hygiene by washing hands regularly and avoiding touching the face and mouth with contaminated hands. Avoid eating, drinking, or smoking in areas where hazardous substances are present.
- Follow safe work practices and procedures.
- Take breaks as needed, especially in extreme heat.
- Report reproductive hazards and any potential exposures to your supervisor. They have a responsibility to investigate any concerns.
- Participate in sampling programs and biological monitoring if necessary.
- Wear personal protective equipment as required by the employer. This equipment may include gloves, goggles, protective clothing, hearing protection, and respiratory protection. You should be trained on the safe use, storage, and maintenance of protective equipment to ensure its effectiveness.

If you have concerns about any hazard that might be a reproductive hazard, you should address those concerns with your supervisor, employer, a safety professional, healthcare provider, or other knowledgeable resources. It is recommended to seek information or to request changes in work practices before attempting to conceive instead of waiting until pregnancy. By planning ahead, there will be more time to obtain information and create an exposure reduction plan if one is needed.

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