

Reproductive Health in the Laboratory

The National Institutes of Occupational Safety and Health defines the term reproductive hazard as “substances or agents that affect the reproductive health of women or men or the ability of couples to have healthy children...” Although we usually associate them with effects on pregnancies, reproductive hazards can affect both males and females. Reproductive hazards can include chemicals, biologicals, nuclear substances, and radiation.

Reproductive hazards often express their most damaging effects at the early stages of conception or gestation, before pregnancy is even detected. As well, the reproductive effects of many materials are not well known. Just because a product is not listed as a known reproductive hazard does not mean it is safe. Good reproductive health means taking steps to prevent exposures to all hazardous products.

If you are pregnant or planning to conceive consult with your family doctor or obstetrician regarding any reproductive risks you may be concerned about. Your doctor may want to know what substances you work with – if such is the case, provide him/her with a copy of your chemical inventory, your internal radiation permit as well as a list of biohazards you or others may work with in a lab. Another useful tool to assess reproductive hazards related to your work is the *New and Expectant Mother Risk Assessment Form* available at:

<https://www.mcgill.ca/ehs/forms/forms/lab-safety>

Quebec legislation provides workers who are pregnant and working with reproductive hazards the legal right to a protective reassignment to ensure she is no longer exposed to reproductive hazards. She is also entitled to protective reassignment if nursing a child and working with chemicals known to migrate into breast milk. While students are not covered by this legislation, McGill recognizes a moral right to provide the same level of protection to students.

Whenever any known reproductive hazards are to be introduced into the lab, the lab Director shall notify pregnant researchers ahead of time so that extra precautions can be taken and/or they can excuse themselves from the area.

Here are some general precautions to protect and maintain your reproductive health in the laboratory:

- Familiarize yourself with the potential reproductive hazards used in the lab by referring to the Safety Data Sheets.
- Work with volatile chemicals in a chemical fume hood.
- Carry out aerosol-generating procedures with biohazardous agents in a biological safety cabinet.
- Store chemicals in sealed containers when they are not in use.
- Immediately leave the work area and seek help in the event of any chemical spills or contaminated workspaces.

- Always wear the appropriate personal protective equipment in the lab: a lab coat, eye protection, and gloves that are resistant to the agents being used, and other devices relevant to the hazards being worked with.
- Stay clear of any sources of ionizing radiation, including x-ray machines. You may consult with the University Radiation Safety Officer to assess the safety of such areas.
- Never consume food or beverages, chew gum or apply cosmetics in the laboratory
- To prevent home contamination change out of contaminated clothing and wash with soap and water before going home. Store street clothes in a separate area of the workplace and wash work clothing separately from other laundry (at work if possible). Avoid bringing contaminated clothing or other objects home.

If you require additional assistance or wish to have your work further evaluated for reproductive hazards, contact ehs@mcgill.ca

References:

Jennison, Elizabeth A. "Reproductive Hazards in the Workplace." Handbook of Chemical Health and Safety. Ed. Robert J. Alaimo. Washington, D. C.: Oxford, 2001

NIOSH: The Effects of Workplace Hazards on Female Reproductive Health
<https://www.cdc.gov/niosh/docs/99-104/>