

PREGNANCY & REPRODUCTIVE HEALTH IN THE WORKPLACE

Some exposures and hazards in the workplace can affect reproductive health. Unfortunately, it is difficult to determine the extent of the effects of many work exposures on reproduction, and occupational health laws and standards don't always protect reproductive health. This fact sheet will explain common hazards that may be found in the workplace and how to protect yourself.

Reproductive hazards can affect both women and men.

HOW CAN REPRODUCTION BE AFFECTED?

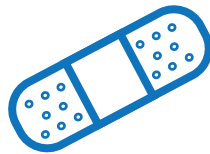
Occupational hazards that can affect reproduction include:



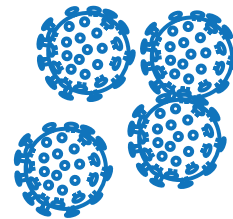
Chemical exposure



Radiation



Physical injury



Infections



Stress

THESE HAZARDS CAN:

- Interrupt normal hormone processes.
- Damage eggs in women and sperm production in men.
- Affect function of reproductive organs.
- Hinder normal pregnancy and fetal/child development.
- Affect composition of mothers' breast milk.

What can happen?

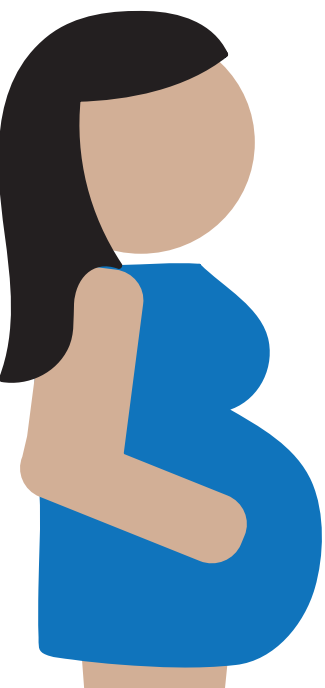
- Infertility or reduced fertility
- Erectile dysfunction
- Menstrual cycle and ovulatory disorders
- Women's health problems linked to sex hormone imbalance
- Miscarriage and stillbirth
- Babies born prematurely
- Birth defects
- Child developmental disorders

Factors that influence the toxicity of reproductive hazards are:

- 1) The time during development when exposure occurs
- 2) The extent of exposure
- 3) The route of exposure
- 4) Characteristics of the parents

Hazards can have different effects depending on the period of development.

MONTH						
T	W	Th	F	S	Su	



When can hazards affect reproduction?

- 1) Before conception,
- 2) While the fetus is developing, and
- 3) After birth through direct contact or breastfeeding.



AT WORK

Some occupations are at higher risk for exposure to reproductive hazards than others. See the following table for occupations and potential workplace risks.

OCCUPATION	POTENTIAL REPRODUCTIVE HAZARD
Artists	Cadmium, mercury, lead, toluene, organic solvents
Athletes	Performance-enhancing pharmaceuticals
Aviation	Hydrocarbons and solvents, carbon monoxide
Building maintenance workers	Cleansers, formaldehyde, hexachlorophene
Carpenters, loggers	Formaldehyde, arsenic, creosote, toluene
Concrete workers, masons	Chromium
Divers	Nitrogen narcosis, decompression effects, oxygen toxicity, carbon dioxide asphyxia
Dry cleaning workers	Chlorinated solvents
Electricians	Lead, polychlorinated biphenyls (PCBs), and related compounds
Electroplaters	Cadmium
Exterminators	Pesticides-organophosphates, fertilizers, fungicides, nematocides
Farmers	Infectious agents, pesticides, fertilizers, diesel exhaust
Firefighters	Carbon monoxide, combustion products, hyperthermia
Floor and carpet layers	Solvents (adhesives, glues)
Florists and groundskeepers	Pesticides, fertilizers, fungicides, nematocides
Food preparers, caterers	Phthalates, infectious agents, alcohol-based food warmers
Hairdressers, cosmetologists, nail salon workers	Solvents, formaldehyde, phthalates, dyes, thioglycolate, cosmetics with lead and/or nanoparticles
Health care workers	Waste anesthetic gases, ionizing radiation, ethylene oxide, antineoplastic agents, infectious agents
Jewelers	Solvent degreasers, soldering fluxes
Mechanics	Degreasers, trichloroethylene, lead, carbon monoxide, diesel exhaust, ethylene glycol
Military personnel	Lead, explosive-nitrates, solvents, degreasers
Morticians	Formaldehyde, infectious agents
Painters, furniture refinishers	Carbon monoxide, lead, solvents, isocyanates, glycol ethers
Plumbers	Lead, chlorofluorocarbons, glues and solvents, metal soldering flux
Police and security guards	Assault, lead, nitrates, selenium, solvents
Printers	Toluene, solvents, glycol ethers
Road/transportation workers	Carbon monoxide, polycyclic aromatic hydrocarbons (coal tar, asphalt fumes)
Sanitation and sewer workers	Asphyxiants, infectious agents
Service workers (food, personal care, retail)	Phthalates, infectious agents
Semiconductor and electronic industry workers	Glycol ethers, arsenic compounds
Ship and dockyard workers	Lead, styrene, glycol ethers
Shoemakers	Solvents
Smelters and metal re-claimers	Lead
Veterinarians and animal care workers	Anesthetic gases, ionizing radiation, pesticides, infectious agents

In addition to hazards listed in this table, workplace risk factors for pregnant women include:

- Heavy physical workload
- Working in extreme temperatures
- Shift work

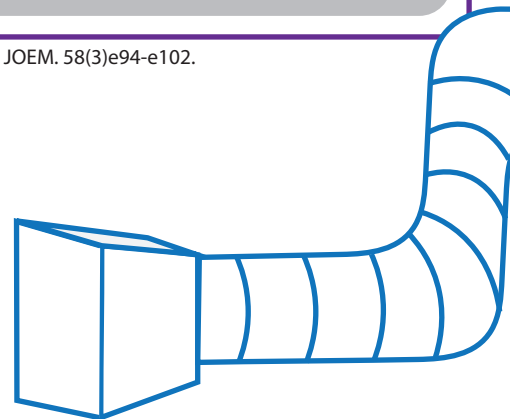
Table credit: Meyer JD, McDiarmid M, Diaz JH, Baker BA, Hieb M. Reproductive and Developmental Hazard Management. JOEM. 58(3)e94-e102.

EMPLOYERS AND SUPERVISORS SHOULD...

- Ensure engineering controls like ventilation and hazard enclosure.
- Substitute toxic substances with less hazardous ones when possible.
- Rotate job tasks to reduce exposure.
- Have a smoke-free workplace.
- Have a plan for pregnant and breastfeeding employees.
- Train all employees in best safety and health practices applicable to their work tasks.

PREGNANCY DISCRIMINATION ACT

The Pregnancy Discrimination Act and other federal acts make discrimination based on pregnancy, childbirth, and related medical conditions illegal. Pregnant women who can perform their job should be allowed to do so, and those who cannot should be treated as other temporarily disabled persons with job reassignment or work modifications.



PROTECT YOURSELF

ALL EMPLOYEES:

- Wear personal protective equipment.
- Wash your hands before touching your mouth and change your clothes at the end of the work day.
- Follow your job's best safety and health practices.

You have a right to a safe and healthy workplace. If you are concerned about your health and/or safety at work, speak to your employer.

IF YOU ARE PREGNANT:



If your job tasks include exposure to potential reproductive hazards, see an occupational medicine physician (a doctor that specializes in injuries, illnesses, and conditions that are affected by the workplace). An occupational medicine physician can consult with your obstetrician to help you balance your job responsibilities and ensure a healthy pregnancy.

Occupational medicine specialists can address any concerns you may have about how your job tasks may influence your reproductive health and/or pregnancy, and provide necessary notes for your employer.

Inform your occupational medicine specialist of...



Family history



All medications you are taking



Your and your partner's occupational history



Your and your partner's social and personal history

These factors can influence recommendations for a healthy pregnancy.

Discuss possible hazards with your employer. Remember:

- Established safety levels for chemicals at work such as Permissible Exposure Limits (PELs) are not necessarily applicable to pregnant women and reproductive health.
- Personal protective equipment that you had been wearing before, such as respirators and safety harnesses, may not fit properly now. Your employer should provide you correctly-fitted equipment. An occupational medicine specialist can determine what personal protective equipment is right for you.

RESOURCES

Reproductive Health and the Workplace. The National Institute for Occupational Safety and Health. <https://www.cdc.gov/niosh/topics/repro/default.html>

Meyer JD, McDiarmid M, Diaz JH, Baker BA, Hieb M. Reproductive and Developmental Hazard Management. JOEM. 58(3)e94-e102.

Drozdzowsky SL, Whittaker SG. Workplace Hazards to Reproduction and Development: A Resource for Workers, Employers, Health Care Providers, and Health & Safety Personnel. Safety and Health Assessment and Research for Prevention. Washington State Department of Labor and Industries.

Jackson RA, Gardner A, Torres LN, Muchko MJ, Zlatnik MG, Williams JC. My Obstetrician Got Me Fired: How Work Notes Can Harm Pregnant Patients and What to Do About It. Obstetrics & Gynecology. 2015. 126(2):250-254.

This information is intended for general reference only and is not a substitute for professional medical advice.



**Mount
Sinai**

*Selikoff Centers for
Occupational Health*

To learn more, contact us at
888-702-0630 or visit us at
www.mountsinai.org/selikoff

