Pregnancy and Reproductive Hazards in the Workplace: Chemical and Radiological Hazards

Substances or agents that affect reproductive health or the ability of couples to have healthy children are called “reproductive hazards”. These hazards may be from exposure to radiation, chemicals, drugs (legal and illegal), cigarettes, microorganisms, or alcohol. Hazards may affect the male reproductive system, the female reproductive system, and/or the fetus.

Employees are encouraged to inform their supervisors as soon as possible when they become pregnant. A supervisor should address concerns about potential workplace reproductive hazards. For information on employee health and safety training consult SafetyNet #33 [1], “Hazardous Material Information and Training: Guidelines for Departments” and SafetyNet #39 [2], “Safety Training Tips.” Supervisors are responsible for determining if substances used in the work area create a known risk of reproductive hazard. Supervisors should discuss the properties of these materials with all employees and establish standards for handling the substances, including the appropriate protective measures for the type of work being performed.

Chemicals and Radioactive Materials:
Chemical agents and radioactive materials pose a wide range of possible hazards. Metals, anesthetic gases, pesticides, industrial solvents, manufacturing chemicals and laboratory reagents have been shown to pose reproductive hazards. If you work with chemicals or radioactive materials:

- Inform your supervisor of your pregnancy so that he or she can review potential hazards in your work area.
- Do not eat, drink, smoke, chew gum, apply cosmetics, etc. in the laboratory.
- Review the Safety Data Sheet (SDS) for the chemical to become familiar with any reproductive hazards that may be present. If you are concerned about reproductive hazards in the workplace, consult your doctor or health care provider.
- Use personal protective equipment such as laboratory coats, gloves, goggles, closed-toed shoes, and if appropriate, a respirator to reduce exposures to workplace hazards.
Avoid skin contact. Wear two pairs of gloves whenever possible. Change gloves frequently and anytime they become torn.

Wear a buttoned laboratory coat with the sleeves down. Fasten sleeves inside the gloves with rubber bands if you can.

If you must handle an open container of a volatile chemical, do so in the fume hood. Make sure the fume hood is working properly (e.g. sashes in place, flow monitor working, face velocity 100-120 fpm).

When it is not possible to handle a hazardous powder inside a fume hood (for example, when weighing out acrylamide), minimize dust, use an enclosure or wear a fitted respirator.

Store chemicals in sealed containers when they are not in use.

Do not mouth pipette under any circumstances.

Remove gloves before any hand-face contact (including rubbing the nose or eyes).

Wash hands after contact with hazardous materials and before eating, drinking, or smoking.

If chemicals contact the skin, wash with soap and water.

Participate in all safety and health education, training and monitoring programs offered by UC Davis.

Use good work practices and laboratory engineering controls (such as the fume hood).

Avoid taking contaminated clothing or other objects home. Store street clothes in a separate area and wash work clothing separately from other laundry (at work if possible).

Be aware that chemical exposures are not limited to the laboratory. Other potential sources of chemical exposures are art materials (e.g. paints, solvents, and glazes), cleaning materials, paints, and automotive products.

If you are pregnant or considering pregnancy and use any of the following types of chemicals, you should contact EH&S for a detailed evaluation of your work:

- Antineoplastic (chemotherapy) drugs
- Experimental drugs
- Carcinogens, Class II or III (chemicals in your CIS account that automatically have a red check in the "C" column)
- Heavy metals and their compounds (e.g. mercury, methyl mercury)
- Anesthetic gases

Ionizing Radiation:
Radioactive hazards may pose a risk to employees who work with radioactive materials and employees who work with radiation-producing machines. These employees should consider the hazards associated with radiation risk to the embryo/fetus. A pregnant radiation user has the right to declare her pregnancy (in writing with the estimated date of conception) and thereby impose a lower dose limits for the embryo/fetus. Contact EH&S for assistance filing this documentation. For more information refer to the Ionizing Radiation and Pregnancy Manual. [3]
Planning a Family:
If you handle or work in the vicinity of toxic or radioactive material, you may wish to have your workplace evaluated before starting your family. To do this, contact EH&S. An EH&S staff member will come to your workplace and give you specific information about any risks associated with your particular workplace. Many toxic and radioactive materials can be used safely before and during pregnancy if handled properly.

The harmful effects of a few agents found in the workplace have been known for many years. The information below identifies agents for which a body of evidence indicates a reproductive hazard. There may be other agents and other hazards that are not identified here that will be found to pose reproductive hazards. Reduce exposures whenever feasible and use good hygiene practices such as frequent hand washing.

As a large employer, the University of California is aware of the importance of safety issues for its employees. There are several safety resources available to employees at the University: the supervisor, the Departmental Safety Coordinator, the EH&S on-call person and the Occupational Health Physician. Other resources available for students are faculty and peer advisors, teaching assistants, the EH&S on call person and the Student Health Center. For additional information, contact EH&S at 530-752-1493 or researchsafety@ucdavis.edu [4].

Contact

Occupational Health Services
occupationalhealth@ucdavis.edu 530-752-6051
More information

Related content

1. Hazardous Materials Information and Training
2. Safety Training Tips

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[4] mailto:researchsafety@ucdavis.edu