Pregnant Worker Guidelines for Hazardous Material Work

Washington University in St. Louis (WashU) seeks to minimize occupational health and safety risks for students, faculty and staff in University research, clinic, shop and teaching settings. Minimizing risks for pregnant women is especially important due to the sensitivity of the conceptus (embryo/fetus) to specific chemicals, biological agents, and ionizing radiation. Risk should also be minimized for those who intend to become pregnant, those with partners who are pregnant or intend to become pregnant, and breastfeeding women. University personnel should know the hazards of the chemicals and substances with which they work and recognize that an individual’s susceptibility to those hazards may change due to factors such as pregnancy.

Students and employees who are contemplating pregnancy or are pregnant should seek advice from knowledgeable sources about the materials they work with. These sources include, but are not limited to: Supervisor or Principal Investigator, personal health care provider, Safety Data Sheets (SDSs), Occupational Health, and/or Environmental Health and Safety (EH&S).

Personnel may consult with Occupational Health and/or EH&S to determine whether any of the materials used in the laboratory or work setting pose additional risk during pregnancy. Occupational Health and/or EH&S will provide confidential assistance during this process. Additional information as it relates to chemical, biological and radiological hazards during pregnancy is provided below. The phone number for the Medical School Student & Occupational Health is (314) 362-3528, and EH&S is (314) 362-6816. Danforth Campus Occupational Health support is provided under contract through the BarnesCare occupational medicine program and to access that service requires getting approval through WashU’s Insurance and Risk Management Office, (314) 935-5627.

EH&S Chemical Safety Division

Certain chemicals are known or suspected to harm the conceptus or the reproductive health of adults. Reproductive toxins include mutagens, embryotoxins and others that may cause sterility or affect sperm motility. The first trimester of pregnancy is a period of high susceptibility, and often the mother may not know she is pregnant. Some examples of chemical groups to be known or suspected reproductive toxins include: anesthetic gases, antineoplastic (chemotherapy) drugs, chemical disinfectants and sterilizers, epoxies and resins, formaldehyde, lead and other heavy metals, pesticides, and solvents.

Individuals who intend to become pregnant, those who are pregnant, and those who are breastfeeding should be especially cautious when working with or around reproductive toxins. Proper handling of chemicals and use of engineering controls and personal protective equipment (PPE) are critical. Please consult your laboratory Chemical Hygiene Plan (Blue Book), Laboratory-Specific Training (Blue Book Appendix 4), SDSs and supporting chemical information to obtain information on reproductive toxins present in your workplace.
While laboratory Chemical Hygiene Plans are designed to protect laboratory workers and students from potential exposures to chemicals and other hazards, enhanced practices and procedures may be advisable for pregnant employees in some laboratory settings. Pregnant and breastfeeding women, those intending to become pregnant and those who have a partner who is pregnant or intending to become pregnant should seek advice from the knowledgeable sources listed previously before working with substances suspected to be reproductive toxins. All protocols and exposure control practices under the laboratory Chemical Hygiene Plan should be strictly followed and all persons in the immediate workspace of the pregnant/breastfeeding/intending to become pregnant (self-declared) person must strictly follow safety protocol and control practices. EH&S can audit or review of the work area on request and provide a list of findings, recommended corrections and/or precautions.

For students and staff who work in clinics, shops and non-laboratory settings that contain potentially hazardous chemicals, your department’s Hazard Communication program should provide you with access to SDS and safety information. Again, seek advice from a knowledgeable source if you have any questions or concerns about potential exposures.

**EH&S Biological Safety Division**

Several human pathogens present greater risks to individuals who are pregnant, who plan to become pregnant, or whose partners are pregnant or planning to become pregnant. These pathogens include, but are not limited to, *Listeria monocytogenes*, Lymphocytic choriomeningitis virus, *Toxoplasma gondii*, and Zika virus. Individuals who work with these pathogens, or who work in areas where these pathogens are handled by others, must be made aware of the reproductive hazards they present through use of appropriate signage. Information on route of transmission, symptoms of infection, and appropriate safety measures must be included in the Laboratory-Specific Training (Blue Book Appendix 4) and IBC protocol for the laboratory.

**EH&S Radiation Safety Division**

The Washington University EH&S Radiation Safety Division implements the voluntary declared pregnant worker program, in accordance with regulatory requirements. Protection of the unborn conceptus from ionizing radiation is an important and well established practice. Various advisory and regulatory groups have established limits for the radiation dose of a developing child due to the mother’s work-related exposure. The US Nuclear Regulatory Commission (NRC) limits the effective dose to the conceptus to 500 millirem if the pregnancy has been declared in writing by the mother. After the declaration of pregnancy, the NRC recommends that the conceptus dose rate not exceed 50 millirem per month for the remainder of the pregnancy. It is important to note that the radiation doses incurred by research and laboratory medicine personnel are generally much less than the NRC dose limit for a developing child. Nevertheless, it is appropriate to review the possible adverse consequences of irradiating the unborn and to promote practices that are intended to maintain conceptus doses as low as possible.

Relevant information is provided in the following references:

• Occupational Safety and Health Administration Guidance for Pregnant workers exposed to ionizing radiation at https://www.osha.gov/SLTC/radiationionizing/pregnantworkers.html

ADDITIONAL INFORMATION

More information regarding the effects of chemicals in the workplace are provided below:
• NIOSH Reproductive Health and the Workplace
• Washington University in St. Louis SDS Resource Page
• OSHA Safety and Health Topics – Reproductive Hazards

REASON FOR POLICY

This policy was adopted to provide information and resources for University personnel who intend to become pregnant, are pregnant or breastfeeding, and those with partners who are pregnant or intend to become pregnant.

RESPONSIBILITIES

Principal Investigators, faculty, and supervisors are responsible for training and instructing all their research, clinic and shop personnel and students in the appropriate ways to protect themselves from hazardous agents and materials. Training and instruction must be protective of all personnel, including those who intend to become pregnant, are pregnant or breastfeeding, and those with a partner who is pregnant or intends to become pregnant. Students, employees, guests and visitors are responsible for learning about the hazards in their workplace, using engineering controls and Personal Protective Equipment (PPE), and following proper work practices.