**Reproductive Hazards**

**Introduction**

Researchers in academic laboratories and workers in art studio spaces can potentially encounter a range of reproductive and developmental hazards. This document is intended to provide some general guidelines on how laboratory or art studio workers can protect themselves from these hazards. EH&S is happy to meet confidentially and to provide resources for further information, upon request. Contact EH&S at ehs@twu.edu.

**Reproductive hazard** refers to agents (radiation, x-rays, chemicals or biologicals) that affect the reproductive health of people to have healthy children. **Reproductive toxins** are defined by the OSHA Laboratory Standard as substances that cause chromosomal damage (mutagens) and/or substances with lethal or teratogenic (malformation) effects on fetuses. **Mutagens** can affect conceptus development, or prevent fertilization entirely by damaging the egg or sperm. **Teratogens** may affect conceptus at any stage of its development (although damage is most likely during the first 8 to 10 weeks of pregnancy). Teratogens differ from mutagens in that there must be a developing fetus. In addition to chemical and radiation hazards, there are microbiological agents that can cause morbidity, miscarriage, fetal death or birth defects.

The federal Pregnancy Discrimination Act prevents TWU from compelling a person to disclose that they are pregnant, and it prevents them from being assigned to different tasks simply because they are pregnant. If a person willingly informs TWU that they are pregnant then additional assessments, precautions or other accommodations can be implemented. EH&S, PIs and department heads will determine the extent to which a pregnant lab/art studio worker or lab/art student can be excused from requirements or what accommodations can be made.

**In all cases, a pregnant person should discuss their circumstances with their medical care professional and provide specific information about potential exposures.**

**Chemicals**

Safety Data Sheets, container labels and literature provide information about the hazards of specific chemicals as well as allowable exposures to those chemicals. Be aware that most occupational safety and chemical hazard information considers allowable exposures to adults with healthy immune status. Teratogens and fetotoxic chemicals are of especial concern for pregnant workers, though all other hazards should still be considered. Hundreds of chemicals have been identified as having teratogenic effects, a few examples include, but are not limited to lead, ethanol, thalidomide, ethisterone, tetracycline, chemotherapeutic agents and certain ethylene glycol ethers. Contact EH&S at ehs@twu.edu if you need assistance finding or interpreting safety information for chemicals.

**Biological Agents**

Some viruses and infectious agents have harmful reproductive effects in pregnant women. Examples include, but are not limited to Cytomegalovirus, Hepatitis B virus, Varicellazoster virus, Toxoplasma gondii, and Rubella virus. Contact EH&S at ehs@twu.edu if you need assistance finding safety information for biohazardous agents.

**Radiation**

The first trimester is known to be the most radiosensitive time for a fetus, thus, it is beneficial, but not required, to meet with the RSO as soon as possible to review safety practices and monitoring options. If a pregnant radiation worker decides to declare their pregnancy, they will meet with the radiation safety officer to review radiation safety procedures, the risk to the fetus, and Nuclear Regulatory Commission guidelines. A pregnant person who does not declare that they are pregnant is protected under the regulations for adult radiation workers. Contact Drew Townsend, Director of EH&S and RSO for TWU at atownsend4@twu.edu.

**Additional Information**

* NIOSH-The Effects of Workplace Hazards on Female Reproductive Health

<http://www.cdc.gov/niosh/docs/99-104/pdfs/99-104.pdf>

* NIOSH- The Effects of Workplace Hazards on Male Reproductive Health

<http://www.cdc.gov/niosh/docs/96-132/>