Pregnant lab workers should take particular care whenever working with hazardous materials to prevent or minimize potential exposures to themselves or their unborn child. Exposure to certain chemicals (e.g., mutagens, teratogens or embryo-toxins), as well as certain biologics and radiation/radioactive materials can harm the unborn child. This fact sheet provides guidance on steps you can take to reduce risks from specific hazards to maintain a healthy pregnancy while working with potentially hazardous materials.

CHEMICAL HAZARDS
Always review the Safety Data Sheets (SDSs) (Sections 2.1 and 2.2) to identify chemicals that pose potential risks during pregnancy. Common chemicals of concern in a lab include:

- Toxic metals (e.g., arsenic, cadmium, lead, and mercury)
- Chlorinated solvents (e.g., methylene chloride, chloroform)
- Solvents (e.g., benzene, toluene, and xylene)
- Isoflurane
- Chemotherapeutic, cytotoxic, and hormonal drugs (e.g., Tamoxifen)
- Formaldehyde (e.g., formalin, paraformaldehyde)

RADIATION HAZARDS
Exposure to ionizing radiation may pose higher pregnancy risks as the unborn baby is more sensitive to radiation. Radiation Safety offers personnel monitoring for “Declared Pregnant Workers.” The declaration is confidential. The employer and their supervisor will be notified if work modifications are necessary. Contact radsafety@tulane.edu for more information.

BIOLOGICAL HAZARDS
Exposure to infectious agents during pregnancy may be of special concern. These include:

- Arboviruses
- Bartonella henselae (Cat Scratch Fever)
- Cytomegalovirus (CMV)
- Group B Streptococcus
- Hepatitis viruses (Hep A, B, C, D, & E)
- Herpes simplex viruses (HSV-1 & HSV-2)
- Human immunodeficiency virus (HIV)
- Listeria monocytogenes
- Paramyxovirus (Mumps)
- Lymphocytic choriomeningitis virus (LCMV)
- Parvovirus (Fifth Disease)
- Rubella and measles viruses
- Salmonella spp. (Salmonellosis)
- Toxoplasma gondii (Toxoplasmosis)
- Varicella zoster (Chickenpox)
- Zika

NEED TO KNOW:
1. Always review Safety Data Sheets (SDSs) to identify potential pregnancy hazards.
2. Contact OEHS if you have concerns about chemical/radiation hazards/exposures in your laboratory space and for guidance on safe work practices.
3. Contact OBS if you have concerns about biological hazards/exposures in your laboratory space and for guidance on safe work practices.
4. Contact Tulane’s Occupational Health Clinic or your healthcare provider about any health/medical concerns related to your job during pregnancy.

SPECIFIC GUIDANCE:

- **STEP 1:** Consult SDS for each chemical you work with.
- **STEP 2:** Always use engineering controls (e.g., chemical fume hoods, biological cabinet) and appropriate PPE when working with hazardous materials.
- **STEP 3:** Determine if High Hazard procedures can be temporarily reassigned or whether there are suitable alternatives to high hazard materials identified in the protocols.
- **STEP 4:** Avoid other workplace hazards (e.g., heavy lifting, working at heights, excessive noise).

ADDITIONAL RESOURCES
- CDC/NIOSH: [The Effects of Workplace Hazards on Female Reproductive Health](#)
- OSHA: [Reproductive Hazards](#)
- CDC/NIOSH: [Reproductive Health and The Workplace](#)
- CDC/NIOSH: [Infectious Agents – Reproductive Health](#)