UCI Environmental Health & Safety

Safety Moment

Protect Yourself from Reproductive Disorders

What can research tell us about the effects of workplace hazards on unborn children? Unfortunately, not very much. Scientists can guess about the dangers of chemical and other hazards by testing them with laboratory animals, but they can never be certain of the effects on human beings. The very fact that we do not know all the details about reproductive dangers means we must be especially careful to avoid them.

The Problem

Each year, some 14 million workers are exposed to chemicals that may impair their reproductive systems or unborn children.

- Chemicals that cause damage to eggs and sperm, resulting in sterility or birth defects, are called "mutagens". Men who are exposed to mutagens on the job can become sterile if the chemicals damage their sperm.
- Chemicals that damage the fetus in the womb, causing miscarriage, stillbirth or birth defects, are called "teratogens" (e.g. benzene, isoflurane or phenol). Women are especially at risk for reproductive disorders because their eggs are not continuously being made; and the contaminants that they are exposed to remain in their body for a long period of time.

What are the culprits?

Although any chemical that is dangerous for you is also dangerous for a fetus, there are several groups of chemicals known to cause reproductive problems.

Chemicals known to cause reproductive problems:

Lead, mercury, cadmium, copper, manganese and arsenic.

Solvents suspected to cause sterility or birth defects:

Styrene, xylene, toluene and carbon disulfide

Other chemicals causing reproductive problems:

Anesthetics, gasoline additives, pesticides, ethylene oxide and chemicals used in rubber and plastics manufacture.

Protect Tomorrow's Children

Whether you are a man or a woman, if you are planning to have children, you have a responsibility to protect yourself from chemical exposure.

It is important to:

- Read the Safety Data Sheet (SDS) for each chemical you use, review your laboratory standard operating procedures regarding reproductive hazards and contact EH&S for a reproductive health consult.
- Even if the chemical is not known to cause reproductive disorders, make sure you are below the exposure limits by using proper protective equipment, keeping track of workplace concentrations, using ventilation and protective enclosures appropriately and staying out of hazardous chemical areas whenever possible.
- Consider transferring to a less hazardous assignment if you are pregnant or planning to become a parent soon. Healthy children are the pride of their parents and society's richest resource. Learn about reproductive disorders to do all you can to protect your ability to have healthy children.

Contact UCI EH&S for questions and guidance: (949)824-6200

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I have reviewed and understand the contents of this Safety Moment document.

Name (print)	UCInetID	Signature	Date

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