



Chemical Exposure Fact Sheet

Chemical Sources

Faculty, students, and staff can be exposed to chemicals from a wide variety of sources, among them are:

- Research chemicals
- Cleaning and maintenance materials
- Building structural materials, especially asbestos and lead
- Pesticides
- Chemicals used on the job, such as degreasers, sterilizers, solvents
- Construction materials
- Animal and other wastes

Exposure versus Hazard

Chemicals can enter the body by breathing gases, vapors, and fumes (inhalation route), skin contact (dermal route), swallowing (ingestion route), or injection under the skin. The chemical itself can be in a liquid, gas or solid form. Obviously, some chemicals are more dangerous than others, and the danger can vary greatly depending on many factors.

Exposure to chemicals is not always dangerous or harmful. Short-term or low-level contact with chemicals may be unpleasant or mildly irritating, but results in no lasting effects. On the other hand, some chemicals can be harmful even with brief contact at low levels. If you work with or come in contact with chemicals and experience any of the following symptoms, the exposure may be harmful and should be evaluated:

- Burning or rash of eyes or skin
- Headache, dizziness, fainting, muscle weakness
- Nausea or vomiting
- Changes to normal function or routine, such as weight loss, fatigue, change in sleep patterns

Exposures and their effects are not always immediate. There are situations where repeated contact with chemicals can cause adverse effects. If you work with chemicals and experience symptoms listed above, or (preferably) are concerned about exposures and want to avoid possible health effects, you should have the situation evaluated by a safety and health professional (see below).

Evaluating Exposure

If adverse health effects such as those listed above are experienced, an occupational health professional can evaluate the severity of the exposure. If the chemical source is not apparent, it is often difficult to identify the specific cause, but a site evaluation can usually provide enough information to recommend corrective actions. More detailed analysis may be necessary using chemical detection methods to monitor the work area or personal breathing zones.

Who to Contact

To have a work area evaluated contact Occupational Safety & Health, (217) 265-9828, e-mail oshs@uiuc.edu.