

Potential Health Risks Associated with Exposures to Trichloroethylene (TCE) in Indoor Air

What is TCE?

Trichloroethylene (TCE) is a type of volatile organic compound (VOC). VOCs are a large group of carbon-based chemicals that easily evaporate at room temperature. TCE is colorless and nonflammable. TCE is typically used as a solvent to remove grease from metal parts and is commonly used in adhesives, paint removers, and spot removers.

Generally, elevated levels of VOCs present in the indoor air are of a concern if exposures occur over a long period of time (chronic exposure). When elevated levels of VOCs are found during an investigation of contamination at a property, the New Jersey Department of Environmental Protection (NJDEP) requires actions to be taken to reduce levels of VOCs, including TCE, within specific time frames to be protective of human health. These actions address the health risks associated with **long-term exposures** to TCE and other VOCs. However, **short-term exposures** to TCE are of a concern because they may occur prior to the implementation of these actions.

Why are short-term exposures to TCE of concern?



TCE is unique because animal studies have shown that **short-term exposures** can increase the risk of health impacts on the developing fetus in the first trimester of pregnancy. Specifically, these

animal studies show that exposure to low levels of TCE during the three-week period of heart

formation in the first trimester of pregnancy could result in an increased risk of a heart defect in the unborn baby.

Given the short critical window of time when TCE can impact fetal heart development, women who are pregnant or may become pregnant should reduce their exposures to TCE as soon as possible and they should discuss any health concerns with their health care provider.

Where can I get more information?

You and your health care provider can find comprehensive information about TCE and additional health risks on the Agency for Toxic Substances and Disease Registry (ATSDR) website as follows:

For the General Public:

<http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=172&tid=30>

For Health Professionals:

<http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=30#12>

Women with health concerns may also have their health care provider contact the Environmental and Occupational Health Sciences Institute (EOHSI) of Rutgers University located in Piscataway, New Jersey.

The physicians at the EOHSI Clinical Center specialize in environmental exposures to contaminants and can provide additional guidance.

The EOHSI Clinical Center can be reached at 848-445-0123 or by email at clinic@eohsi.rutgers.edu.

General questions can be directed to the New Jersey Department of Health, Consumer, Environmental, and Occupational Health Service at 609-826-4984.

