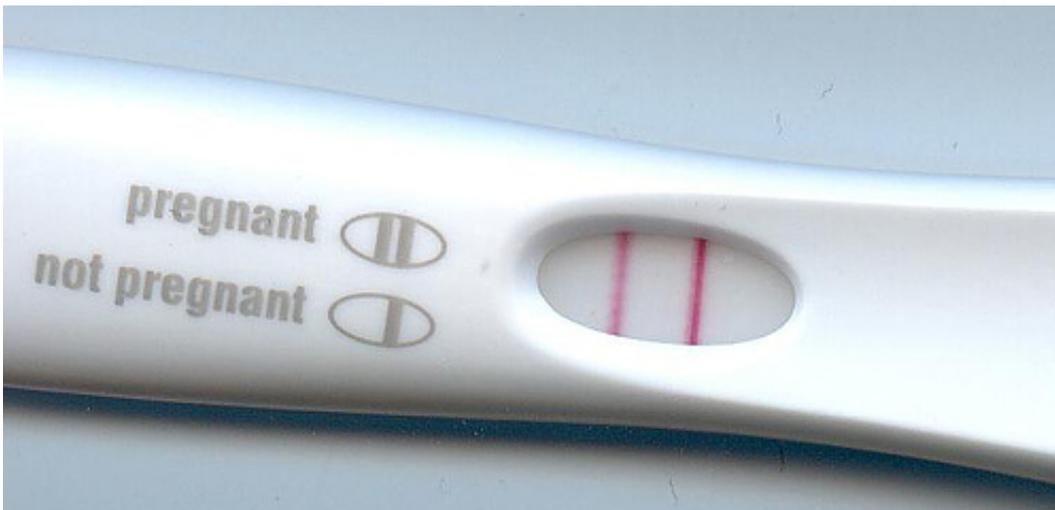


Contaminated water linked to pregnancy complications, study finds

September 30 2014



Pregnancy test. Credit: public domain

Prenatal exposure to tetrachloroethylene (PCE) in drinking water may increase the risk of stillbirth and placental abruption, according to a new study led by a Boston University School of Public Health researcher.

The study, published in the journal *Environmental Health*, compared 1,091 PCE-exposed pregnancies and 1,019 unexposed pregnancies among 1,766 women in Cape Cod, Ma., where water was contaminated in the late 1960s to the early 1980s by the installation of vinyl-lined asbestos cement pipes. PCE exposure was estimated using water-distribution system modeling software. Data on pregnancy complications

were self-reported by mothers.

Of the more than 2,000 pregnancies, 9 percent were complicated by pregnancy disorders associated with placental dysfunction. Pregnancies among women with high PCE exposure had 2.38 times the risk of stillbirth and 1.35 times the risk of [placental abruption](#), compared to unexposed pregnancies. Also, the study found an elevated risk of vaginal bleeding in pregnancies where women had PCE exposure greater than or equal to the sample median.

Lead researcher Ann Aschengrau, professor of epidemiology at BUSPH, said the study findings support a small body of prior research indicating that PCE exposure may impact placental function and fetal growth. However, further investigation of related disorders is needed, she said.

"We need to have a better understanding of the impact of this common [drinking water](#) contaminant on all aspects of pregnancy," said Aschengrau, who has led numerous prior studies on the health effects of PCE.

Researchers used data from the Cape Cod Family Health Study, a population-based retrospective study designed to examine the influence of [prenatal exposure](#) to PCE-contaminated drinking water on multiple outcomes during [pregnancy](#) and childhood. Women were considered eligible for the parent cohort if they gave birth to at least one child between 1969 and 1983 and were living in one of eight Cape Cod towns with some contaminated pipes at the time of the child's birth.

The study found no link between PCE exposure and preeclampsia or delivery of small-for-gestational-age (SGA) infants.

"Our results suggest that prenatal PCE [exposure](#) is not associated with all obstetric complications, but may increase the risk of certain ones,

including stillbirth and placental abruption," the study says.

More information: The full study is available here:
www.ehjournal.net/content/13/1/72

Provided by Boston University Medical Center

Citation: Contaminated water linked to pregnancy complications, study finds (2014, September 30) retrieved 26 April 2024 from <https://medicalxpress.com/news/2014-09-contaminated-linked-pregnancy-complications.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.