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Exposure to Contaminated Water During Pregnancy Tied to Complications

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Pregnant women exposed to contaminated water risk the health of their baby, say researchers.

Drinking contaminated water during pregnancy risks the health of the mother as well as the unborn baby, according to a study from Boston University.

In 2008 it was [reported](#) that water supply in 24 major U.S. cities that serve 40 million people is contaminated with trace amounts of antibiotics, anti-inflammatories and psychotropics.

In the [latest study](#), researchers at Boston University School of Public Health found that prenatal exposure to tetrachloroethylene (PCE) present in contaminated water increases the risk of pregnancy complications that include stillbirth and placental abruption.

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The study compared 1,091 PCE exposed pregnancies to 1019 unexposed pregnancies among women in Cape Cod. The water was contaminated in the late 1960s and early 1980s by the installation of vinyl-lined asbestos cement pipes. Using a water-distribution system modeling software, the researchers estimated the exposure to PCE.

Data regarding the pregnancy complications were self-reported by the mothers. The study looked at the influence of PCE contaminated drinking water on the pregnancy outcomes.

The participants considered were those that had at least one child between 1969-1983 and were residing in one of the eight Cape Cod towns with the contaminated pipes at the time of child birth.

It was observed that out of the 2,000 pregnancies, 9 percent suffered pregnancy complications linked to placental dysfunction. Pregnant women exposed to high levels of PCE were 2.38 times more vulnerable to stillbirths and 1.35 times at risk of placental abruption compared to the unexposed pregnancies.

Apart from this, a higher risk of vaginal bleeding was seen during pregnancies when the women were exposed to PCE greater to or equal to the sample median. This finding supports the previous researches that highlighted how PCE exposure negatively impacts the placental function and fetal growth.

"We need to have a better understanding of the impact of this common drinking water contaminant on all aspects of pregnancy," said lead researcher Ann Aschengrau, professor of epidemiology at BUSPH.

However, there was no association between PCE exposure and preeclampsia or delivery of small gestational age 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.

The finding was documented in the journal Environmental Health.