Tap water 'increases risk of birth defects'

DEBBIE GUEST

Chemical by-products in tap water in some Perth suburbs are increasing the risk of birth defects and pregnant women may need to drink bottled water to avoid the danger, health researchers led by the University of WA have warned.

The researchers examined water samples from almost 50 public locations north of the Perth central business district and found that women who lived in areas with high concentrations of trihalomethanes in drinking water had a 22 per cent greater risk of having a baby with a birth defect when compared with women in areas with lower concentrations.

Heart problems were the most likely defect.

Trihalomethanes are by-products formed by the reaction of chemical disinfectants, particularly chlorine, with natural organic matter in water. The researchers found high levels of THM in five water catchment areas stretching 10km north of the CBD.

The researchers defined high levels of THM as 130 micrograms per litre and above.

Australia's recommended maximum allowable level is set by the National Health and Medical Research Council at 250 micrograms per litre.

The NHMRC is reviewing drinking water guidelines but the limit is much higher than in some other industrialised countries such as Canada, which allows just 80 micrograms per litre.

Professor Philip Weinstein, from UWA's school of population health, said a developing foetus was very sensitive to environmental toxins. "This is one possible route of exposure that hasn't really been considered adequately in the past," he said.

"If you introduce poisons to the foetus when it's forming, things go wrong, development is very complex and the slightest toxin can interrupt the normality of that development."

He said that it was difficult to balance the need to chlorinate water to protect against diarrhoea-causing bacteria and the chemical by-products formed when chlorine was added to water.

"On the one hand you've got the bacteria, on the other hand you've got the disinfection by-products, to get neither requires pretty heavy duty water engineering," Professor Weinstein said.

He said more study was needed and if the extra research supported the group's findings, pregnant women in some suburbs may need to be advised to drink only bottled or filtered water.

"If it's deemed to be a serious enough problem across a wide enough population then maybe something should be done about removing them (THM), if it's a minor localised problem maybe bottled water for those people at risk," he said.

The water samples were collected for 12 months over 2005 and 2006.

The researchers than examined the WA Birth Defects Registry and the number of total births and birth defects from postcodes corresponding to the sample locations between 2000 and 2004.

The Water Corporation referred the issue to the Health Department, the body that regulates water quality standards and operates the Advisory

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