

## **Chlorine in Your Tap Water and In Your Diet Cola**

*By Janet Starr Hull*

Would you drink a cup of pesticides? What about a cup of chemical water? All your aquarium fish will die within a matter of minutes if you add tap water to your fish tank without also including a de-chlorinator to remove the chlorine. Doesn't that tell you something about the danger of drinking chlorine?

The manufacturers of sucralose say the chlorine in their sweetener will pass harmlessly out of your body too. What if it doesn't? How do you know your body won't digest it? Everyone reacts differently to individual chemicals.

Chlorine is a dangerous carcinogen, according to research on tap water. Chlorine in tap water results in cancer and many other diseases, according to researchers worldwide. So, if chlorine in tap water is a suspected carcinogen, is it safe to drink in diet colas?

The FDA has stated the chlorine in sucralose found in Splenda is safe, but there is scientific evidence on chlorine in tap water that may help you decide whether or not to avoid drinking additional chlorine until these issues are resolved. So, before you crack open that ring top on your diet cola can, please read the research I've compiled below that shows the harmful effects of chlorine in the human body, especially during pregnancy.

### **The Documented Risks For Your Baby**

According to recent research in Europe, pregnant women in their first trimester who drink five or more glasses of chlorinated tap water a day may be at a much higher risk of miscarriage than women who drink non-chlorinated water.

Concerned that chlorine may cause spina bifida and stillbirths, the British government has ordered an independent study of chlorine-treated drinking water. Scientists from Imperial College, London University, are interested in new research from doctors in Norway, Canada and the United States who reported higher levels of birth defects in areas where chlorine is used, compared with drinking water treated by alternative methods.

John Fawell, a leading specialist on water quality and an independent industry consultant, says, "The people who have done this work in Norway and in the United States are reputable researchers and the government and water companies have commissioned their own research from London University. All of Britain's and the United States' water companies chlorinate their public water supplies. The only people who use non-chlorinated water are those with their own water wells."

A Norwegian study of 141,000 births over a three-year period found the risk of birth defects increased 14 percent in areas with chlorinated water. Scientists have already found an association between chlorine and an increased risk of bowel, kidney and bladder cancer, but it is the first time a link has been verified with higher levels of spina bifida.

Dr. Per Magnus, the research scientist who carried out the Norwegian study, says, "This is an important finding because we know there are chemicals released by the action of chlorine on organic particles at treatment works. We have observed mutations in these chemicals that seem to tie up with mutations that are found in babies. We were in a unique position in Norway to make these observations because in some areas our water comes from the mountains and doesn't require cleaning with chlorine."

A study by Dr. Niels Skakkebaek of the University of Copenhagen demonstrated that average human sperm counts have dropped in Denmark by almost 50 percent due to the presence of man-made chlorine found within human tissues and breast milk.

The Norwegian government has ordered more research be done. But, in the meantime, concerned families have begun filtering their tap water. A popular method is to place sachets of coral sand, dredged from Norwegian fjords, into water before it is consumed, removing all traces of chlorine in tap water after 15 minutes.

At Dalhousie University in Nova Scotia, researchers found that high levels of trihalomethanes, a by-product of chlorine in drinking water, significantly increased the risk of stillbirth.

Bladder cancer has been linked to chlorinated drinking water in an average of 10 out of 11 studies. One of the studies in Ontario, conducted with funding from Health Canada, found that 14-16 percent of bladder cancers in Ontario showed a direct correlation to drinking water containing high levels of chlorine by-products. Chlorinated water has been linked to colon and rectal cancers in the studies, but the occurrences were not as common as those for bladder cancer.

### **Any Safer Options Available?**

Dr. John Marshall, of the Pure Water Association, an American consumer group campaigning for safer drinking water, states: "It shows we should be paying more attention to the chemicals we put in our drinking water and should be looking for other alternatives to chlorination. A number of safe, non-toxic options exist, such as treating water with ozone gas or ultraviolet light."

For now, investigate the purest "spring" water sources available in your region of the country. Keep a water jug close by and constantly full, sipping natural water all day long. Use it for your coffee or tea, and teach your children the difference between pure water sources and chemically-altered water.

Investigate the safety of the piping in your home, and add a water filter to the house tap if possible. Place filters on icemakers, and don't drink from the garden hose. If you have access to a water well, have it tested for heavy metals and place a filter on that tap, if necessary.

Pure water is a human being's primary survival mechanism. Don't take the importance of water lightly. In fact, I'd rather sip on a bottle of purified water than a diet cola any day.

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