

Chlorine and Health

In recent years, there have been numerous concerns about chlorine. Although chlorine disinfects drinking water, it also reacts with traces of other material of particles, such as dissolved solids, in the water and forms trace amounts of substances known as disinfection byproducts (DBPs). The most common of these are known as trihalomethanes (THMs). The United States Environmental Protection Agency (EPA) has classified THMs as a probable carcinogen.

Chlorine is said by some to be the original persistent organic pollutant (POP). POPs persist in the environment for decades and research by Columbia University suggests they may remain for centuries.

Many now-banned substances (e.g., Agent Orange, DDT, PCBs) and many others like them all have one legal cousin-- chlorine. Dr. Joe Thornton, a biologist at Oregon University, states in his book *Pandora's Poison* that all of the organochlorines contaminate the environment, wildlife, our food and our bodies. They have just one antidote: "ban them all". An organochlorine is a class of chemicals formed when chlorine gas produced by the chemical industry comes into contact with organic matter in industrial processes and in agricultural uses.

There are 11,000 organochlorines that are known to exist. They are both persistent and stable in the environment, and they accumulate in the fatty tissues of animals and humans. They have been in existence since 1940 and now blanket the entire planet. Everyone on earth now eats, drinks, and breathes a constantly changing and poorly characterized soup of organochlorines, said Dr. Joe Thornton.

Organochlorines have been linked to immune system suppression, falling sperm counts and infertility, as well as learning disability in children.

Notable Quotes and Facts

- A study by the U.S. Council of Environmental Quality showed that the cancer risk among people drinking chlorinated water is 93% higher than among those whose water does not contain chlorine.
- Dr. Lance Wallace of the Environmental Protection Agency states that "Taking long, hot showers is a health risk exposing us to a greater extent to the toxic chemicals contained in water."
- Dr. Niels Skakkebaek of the University of Copenhagen conducted a study that demonstrates how the average human sperm counts have dropped in Denmark by almost 50% due to the presence of man-made chlorine found in human tissues and breast milk.
- Dalhousie University in Nova Scotia, found that high levels of trihalomethanes, a by-product of chlorine in drinking water, significantly increased the risk of stillbirth.
- Dr. J. M. Price states that the cause of arteriosclerosis and resulting heart attacks and strokes is none other than ubiquitous chlorine in our drinking water.
- A professor of Water Chemistry at the University of Pittsburgh claims that exposure to vaporized chemicals in the water supplies through showering, bathing, and inhalation is 100 times greater than through drinking water.
- The National Academy of Sciences estimate that over 1000 people die in the United States each year from cancer caused by ingesting the contaminants in water. Tens of thousands are made

acutely ill.

- Dr. Thornton warns, that the levels of dioxin in the environment can only increase, as long as organochlorines are produced. "Once we're got them, we're got them, and there's no safe way of disposing of them.... Once they're in you, there's no way to get them out."

Dr. Riddle suggests that since chlorine is required by health regulations to be present in all public drinking water supplies, it is up to the individual to remove the chlorine by "Point of entry systems at the home and Point of use systems" elsewhere when possible. It is not expensive to filter and with understanding of the many cautions mention in this article, all research states that all chlorine must be removed prior to consumption.

Many Valuable Uses (Worth Noting): Surely many of us would not be here if chlorine had not been used to eradicate the plagues and diseases that were prevalent prior to 1904. Your parents or grandparents might have been among those who were victim to those water-borne diseases. It was chlorine that increased life expectancy from 45 years to 77 years.

Since 1846, when chlorine was first used as a germicide, it has become much more than most people realize. Due to its ability to combine and react with other elements and compounds, chlorine is now a key building block of modern life. Almost every product made today benefits from chlorine chemistry. Chlorine makes water safe to drink, produces life-saving drugs and medical equipment, shields police and fire fighters, protects crops, comes to the rescue in disasters, and cleans and disinfects everything in or around the home. Hotels, nursing homes, hospitals, restaurants, schools, businesses and manufacturers all depend on chlorine.

It is also completely true that what we don't know about chlorine may harm us in numerous ways.

Learn more about [Chlorine and Cancer](#)

Chlorine and Health Risk Links

Dermal Absorption

<http://www.cape.ca/>

<http://aje.oxfordjournals.org/>

<http://www.dailymail.co.uk/>

<http://www.theaustralian.news.com.au/>

General Health Risks

<http://www.nov55.com/hrt.html>

<http://www.waterinfocenter.com/>

<http://emml.mtu.edu/>

<http://www.internethealthlibrary.com/>

<http://ehp.niehs.nih.gov/>