

Showering in Tap Water Should You Bathe in BLEACH?

Why filter Your Shower Water?

Chlorine is a toxic chemical. It is used in water treatment to reduce and kill forms of biological agents, such as bacteria and viruses found in water systems. Chlorine is harmful to you when you drink it and when it is absorbed into our skin and inhaled into your lungs when you shower. It has been estimated that the "shower steam" in your bathroom can contain up to 100 times the amount of chlorine than the water, because chlorine evaporates out of water at a relatively low temperature. If you bathe or shower in unfiltered tap water you are inhaling and absorbing chlorine into your body.

Conditions contributed to or aggravated by chlorine exposure:

- Respiratory Conditions (nose, throat, lungs, sinuses): Asthma, bronchitis
- Hair: Dry, brittle
- Skin: Dry, flaking, dandruff, itching, rashes (especially with infants and children)
- Eye irritations and other conditions

Chlorine is universally used to chemically disinfect water. It kills germs, bacteria and other living organisms. Chlorine readily passes through the cell wall and attaches to the fatty acids of the cell, disrupting the life sustaining functions. The human body is composed of billions of cells. Most people are aware filtering their tap water at home or buying bottled water can improve the quality of their drinking water. However, many do not realize that they are addressing only a part of the chlorine problem.

One half of our daily chlorine exposure is from showering. Chlorine is not only absorbed through the skin, but also re-vaporized in the shower, inhaled into the lungs, and transferred directly into the blood system. In fact, the chlorine exposure from one shower is equal to an entire day's amount of drinking the same water. Drinking filtered or bottled water only does half the job. For people who are concerned about their health and are willing to take the responsibility to do something about it, a top quality shower filter is an affordable solution to the problem. Request info AntiAgingSecretsFL@aol.com



Showering in Chlorinated Water: Quotes from Respected Authorities

Americans are becoming more aware of the contaminants in our nation's water supplies and many are installing water filters to purify their drinking water. Yet most continue to bathe and shower straight from the tap, unaware that inhaling unfiltered shower vapors (steam) is more harmful than actually drinking the water itself. During a shower, toxic chloroform evaporates into the surrounding air you breathe. In addition, *The Center for Study of Responsive Law's, Troubled Water on Tap report*, states that over 2,100 contaminants have been found in drinking water. Of those 2,100, 190 are known to cause adverse health effects. In total, 97 carcinogens, 82 mutagens and suspected mutagens (cause cell mutations), 23 tumor promoters and 28 acute and chronic toxic contaminants have been detected in U.S. drinking water. According to *East West magazine*, consumers should purchase shower head filters which remove chlorine and other contaminants to prevent exposure to chloroform [and other toxic substances]."

-*Center for Study of Responsive Law, Consumers Research Magazine, East West, July 1989.*

"A long, hot shower can be dangerous. The toxic chemicals are inhaled in high concentrations."

- *Bottom Line - August 1987, J Andelman, Ph. D.*

"We conclude that skin absorption of contaminants in drinking water has been underestimated and that ingestion may not constitute the sole or even primary route of exposure."

-*American Journal of Public Health, May, 1984, Vol. 74, No. 5*

"Ironically, even the Chlorine widely used to disinfect water produces Carcinogenic traces. Studies indicate the suspect chemicals can also be inhaled and absorbed through the skin during showering and bathing."

- *U. S. News & World Report - 29 July 1991, Is your Water Safe - The Dangerous State of Your Water*

"Taking showers is a health risk, according to research presented last week in a meeting of the American Chemical Society. Showers - and to a lesser extent baths - lead to a greater exposure to toxic chemicals contained in water supplies than does drinking water. The chemicals evaporate out of the water and are inhaled. They can also spread through the house and be

inhaled by others."

- *New Scientist* -18 September 1986, Ian Anderson

"Studies have documented the presence in the drinking water of many potentially toxic volatile organic chemicals (VOC's)- from chloroform and pesticides to carbon tetrachloride. Such findings have spurred investigations into the inhalation hazards these compounds may pose when released in the air during baths and showers. However, because shower and tub equipment, as well as other design features, differed widely in these experiments, air releases for a single VOC could vary up to 10-fold from one studied system to another."

-John C. Little, Lawrence Berkeley (California) Laboratory, *Science News*, August 15, 1992

"The steamy air of a shower contains significant amounts of a least two cancer-causing chemicals that evaporate out of water."

-J Andelman, Professor of Water Chemistry, University of Pittsburgh

"Almost two decades have passed since known or suspected human carcinogens were first found in municipal water supplies. One of them, chloroform, produced by the chlorination process, exposes millions of Americans. The potential for a major public health problem is unquestionably there, and yet, progress has been slow."

-Dr. Peter Isacson, M.D., Professor of Epidemiology, Department of Preventive Medicine, University of Iowa College of Medicine

"Skin absorption of contaminant has been underestimated and ingestion may not constitute the sole or even primary route of exposure."

- *American Journal of Public Health* - Dr. Halina Brown

"Showering is suspected as the primary cause of elevated of chloroform in nearly every home because of the chlorine in the water. Chloroform [a known carcinogen] levels increase up to 100 times during a ten-minute shower in residential water"

- *Environmental Protection Agency* - Dr. Lance Wallace

"I tell my friends to take quick, cold showers", said Julian B. Andelman, Professor of Water Chemistry, University of Pittsburgh, who claimed that the longer and hotter the shower, the more chemicals build up in the air.

San Jose Mercury News, September 11, 1986

"Many investigators have reported on the toxicity and unexpected high penetration rates of volatile organic chemicals."

-*American Journal of Public Health*

"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 greater than through drinking the water."

- *The Nader Report, Troubled Waters on Tap* - Center for Study of Responsive Law

"The National Academy of Sciences estimates that 200 to 1000 people die in the United States each year from cancers caused by ingesting the contaminants in water. The major health threat posed by these pollutants is far more likely to be from their inhalation as air pollutants. The reason that emissions are high is because water droplets dispersed by the shower head have a larger surface-to-volume ratio than water streaming into the bath."

- *Science News*-Vol. 130, Janet Raloff