

Now, there is a thought even for your shower...

### *Now, there is a thought even for your shower...*

Stop showering in Chlorinated Water now! You do not need to 'sterilize' your body this way. Chlorinated water brings more hazardous side effects that you never expected. Stop further penetration of toxic Chlorine into your body now and all the unnecessary damages to your skins & hair.

#### ***Chlorine and Chloramines***

It is a common sense that Chlorine or Chloramines (a mixture of Chlorine & Ammonia) are universally used by worldwide municipalities as disinfection agents in their water treatment works. With greater exposure to toxic chlorine contained

in water supplies, the potential health dangers we face become more realistic while expose us to higher risk of getting cancer. The hazardous condition caused by these disinfection agents in our water supplies has made our peaceful showering time no longer peaceful.

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#### ***Why a Shower Filter is needed***

During the bathing time, especially hot shower, the chlorine (naturally in gas form) will evaporate out of the water and the inhaling steamy chlorinated shower vapors enters our body through the open pores of the skin. According to research presented at a meeting of the American Chemical Society, long hot shower will lead to a greater exposure to toxic chemicals contained in water supplies than does drinking the water. House holders

can receive 6 to 100 times more of the chemical by breathing the air around showers and bath than they would by drinking the water.

Chlorine also attacks the skin and skin oils, creating a dermal drying effect. Shower water can also cause or worsen skin irritations and rashes as well as drying the skin. Showering in chlorinated water will also result in the breakage of hair shafts and hair loss as chlorine is absorbed into the body through the skin, additional physical problems can ensue. Chlorinated water can also irritate eyes, leaving them red, itchy and burning. Inhaling the toxic steam can aggravate the sinuses and lungs.

Chloramine, although a more stable compound, contains a combination of chlorine and ammonia. Its harmful effects cause the same dangers as pure chlorine.

## Shower Filter Technology

### Traditional Shower Filter Technologies

Filtration by Activated Carbon (AC) is effective in reducing certain organic chemicals and some chlorine in cold water. Chlorine is attracted to and absorbed into the surface of the carbon particles. However, the efficiency of absorption is quickly reduced when the water becomes warm or hot. The lifetime of an activated carbon shower filter will become relatively short.

KDF, another widely used de-chlorination media, is comprised of copper and zinc. It removes free chlorine by reversing the electrochemical process that originally separated the chlorine from sodium in a brine solution. It can't, however, remove chloramines and its efficiency depends on water temperature, it doesn't work well in very hot or very cold water, with a temperature range usually between 30-50°C.

KDF shower filters are also affected by water pressure. When the water pressure is not high enough, water simply can't pass through the KDF fine granular media.

The most disadvantages of traditional Shower Filter system and media is that it gives you no chance at all to monitor and determine when the filter media/ cartridge is exhausted and when to replace. You never know as it is fully concealed within the casing

and no any indication or signal to alert you – until you feel uncomfortable in your shower again!

### Advantages of Vitamin C over Traditional Technologies

De-chlorination by Vitamin C is not something new. It has been used in EPA and APHA methods for the de-chlorination of lab samples.

Very recently, Vitamin C de-chlorination has also been used in the treatment of wastewater prior to reintroduction into the environment because of its organic benefits and harmless nature with regards to aquatic wildlife.

There are several powerful arguments for using Vitamin C instead of KDF, activated carbon or sulfur-based compounds as de-chlorination agents. Vitamin C utilizes L-ascorbic acid chemistry for de-chlorination. It is also the safest and least toxic of all de-chlorinating agents.

*"Studies indicate the suspect to chemicals can also be inhaled and absorbed through the skin during showering and bathing." "Ironically, even the chlorine widely used to disinfect water produces Carcinogenic traces." "Though 7 out of 10 Americans drink chlorinated water, its safety over long term is uncertain." "Drinking chlorinated water may as much as double the risk of Bladder Cancer, which strikes 40,000 people a year."*

**U.S. NEWS & WORLD REPORT**

*Is Your Water Safe--The Dangerous State of Your Water*

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

**Dr. John Andelman, Ph.D.**

*Bottom Line - August 87*

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

**Dr. Halina Brown**

*American Journal of Public Health*

*"Showering is suspected as the primary cause of elevated levels of chloroform in nearly every home because of the chlorine in the water."*

**Dr. Lance Wallace**

*EPA, US  
(Environmental Protection Agency)*

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

**Janet Raloff**

*Science News, Vol.130*

*"Cancer risks among people drinking or contact with chlorinated water is 93% higher than among those whose water does not contain chlorine."*

**US Council of Environmental Quality**