The History Of The Refrigerator Water Filters

By Ray Scardigno

The earliest recorded method of water filtration dates back to 2000 B.C. where hieroglyphics depict

methods of boiling water, placing hot metal instruments in water and filtering water through charcoal and sand. These early methods are thought to have been instituted to make water taste better, thus, cleaning it. Water filtration was further developed with the advent of the microscope, which made it possible to see foreign particles and contaminants in water that would have otherwise been considered to be pure and clean. Most notably, the microscope was responsible to identify cholera bacteria in drinking water during a disease outbreak in 19th century London. The outbreak was rampart in all areas except those areas where drinking water was filtered through sand. Chlorine was also discovered to be an effective, chemical disinfectant capable to rid the infectious water of cholera. It was further discovered that the chemical, chlorine, when used in combination with sand filtering, was effective in combating cholera as well the water borne diseases, typhoid and dysentery.

In an effort to achieve drinking water purity, chlorine disinfection and sand filtering became prominent methods of municipal water treatment throughout Europe, and then, the US. These primitive methods of disinfecting and filtering water to achieve purity have been studied and evaluated with the use of technology. Chlorine, despite its history of ridding water of contaminants, is a poison. It has since been found to exhibit side effects that aggravate and induce respiratory complications, such as asthma. The poisonous chemical vaporizes at a faster rate than water, making it dangerously harmful when inhaled, especially during showering. Fluoride has since been added as an additional chemical disinfecting agent, but also has side effects of dental damage and other health complications in young children. Lead and other chemical contaminants and by−products further compromise drinking water during the piping and delivery of treated water.

Business and industry have been instrumental in the disposal of waste materials into our fresh water supply sources. This inhabitation has directly contaminated the water supply and also upset the balance of water flow and creation established by nature. The US Clean Water Act, legislated in 1972, was intended to restore the physical, chemical and biological balance of water that had been disturbed by contamination. The Act specified that all natural water supplies would, at least, be safe for fishing and swimming by 1985. This specification led to the development of some form of water filtration and disinfection in every US city as well as advanced technological innovations in the filtering of water used

in industry. Even so, the severity of past and continued damage has left more than 1/3 of all water supplies still polluted with contaminants.

In an effort to reduce the contaminants in drinking water and also to comply with national efforts to make drinking water safe, water−filtering systems have been developed to filter water within individual homes. Systems exist to filter incoming water for the entire house and also systems are designed to filter water, inline, at various points of water distribution within the house, such as at faucets and refrigerators or in water pitchers. The US based company, Omnipure Filter Company, credits its self with developing the first small, disposable, inline water filter in the world. The Omnipure CL Series of water filters, developed in 1970, were carbon−based, inline filtering systems designed for water coolers and ice machines. This benchmark water filtering system used granular activated carbon (GAC) to create cost effective methods of filtering water inline. Advances in the functionality, using the same basic design, have since led to the development of whole−house filters, faucet filters, countertop filters, pitcher filters, refrigerator filters and portable filters for camping.

In 1996, KX Industries developed and supplied the first refrigerator water filter for ice cube and cold water dispensing. KXI is credited with developing the initial end of tap filter for the Proctor and Gamble/PUR and the Clorox/Brita water filters. The new technology has been adopted and revised to suit a number of refrigerator models, creating a $200 million refrigerator water filter market.

Today, Filters Fast LLC, the leading online retailer of refrigerator water filters, carries filters for every major brand of refrigerators tht filter out anything from Chlorine to Lead and pesticides. They recommend that your filter be changed at least every 6 months to keep your water at it's best quality.

Ray Scardigno writes about water filters, the water filtration industry, and refrigerator water filters. For more information and articles on water filters please visit

http://www.filtersfast.com

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Why Should You Change Your Refrigerator Water Filter Every Six Months?

By Ray Scardigno

The life of refrigerator water filters is dependent upon the volume of contaminants in the water as well as the amount of use of the filter. Well water is more likely to contain contaminants not found in publicly treated water and may need more frequent filter changes. As a rule of thumb, the filter should be changed as specified by the manufacturer or at least every six months.

Carbon is the primary substance used in water filtration methods because carbon has the potential to absorb many of the chemicals found in water. Most refrigerator water filters, which meet NSF/ANSI 42 certification standards, use granular activated carbon (GAC) to attract chemicals and impurities responsible for bad taste and odor, such as those that are a by−product of chlorine. These filters are

not capable, however, to rid water of more dangerous, health−threatening contaminants. The method by which water is channeled through GAC filters does not allow sufficient time to complete the absorption of such substances. Various bacteria are formed, trapped and allowed to multiply, which further contaminates water processed by the filters. Carbon is not capable to absorb heavy metals, such as lead. GAC filters may trap some heavy metals and sediments, but allow others to filter through to the output water. Failure to change the water filter, every six months, allows unabsorbed water contaminants and newly formed bacteria to saturate the filter, forcing the filter to leak contaminants back into processed water. The water output may contain more contaminants than the filter was intended to remove in the first place.

Technology has lead to the development of more absorbent carbon−based filters, solid carbon block filters. These filters include solid blocks of carbon to absorb contaminants from water. Water takes longer to strain through carbon blocks than it does carbon granules, so that carbon blocks provide sufficient time for the absorption of more health−threatening containments. While carbon block filters are capable to absorb toxics, pesticides, TTHM's and other contaminants, they cannot absorb heavy metals or contaminants that are by−products of agricultural fertilization, such as nitrates or sulfides. The composition of carbon blocks allows them to restrain heavy metals and bacteria away from output water, however, nitrates and sulfides are not filtered. Even so, carbon block filters are sufficient to meet NSF/ANSI 53 certification standards. Failure to change carbon block filters, every six months, allows contaminants to saturate the filter, forcing the filter to leak contaminants into the processed water. When sediments are not removed from water, those sediments buildup and corrode filter fittings and water fixtures, causing them to leak. This type of damage to filters and fixtures may cause the output water to contain more contaminants than the water input to the filter. Failure to change the filters might also reduce the water pressure, within the filtering system, forcing it to be ineffective.

Some refrigerator water filters may include fiber water filters. These filters are made of tightly wrapped fibers of rayon or spun cellulose, which trap rust, lead and other sediments found in water. When used alone, these filters are ineffective in reducing any chemical or health−threatening contaminants. Fiber filters are best suited for use with other types of filters to reduce the concentration of sediments. They should be replaced, every six months, to avoid a build−up of sediments that would force the filter to leak the contaminants back into the processed water.

Ray Scardigno writes about water filtration systems and water purification. Learn more about

refrigerator water filters at

http://www.filtersfast.com

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