★ Is bottled better?

Every minute a million bottles of water are bought worldwide. This is turning the planet into a plastic wasteland and endangering marine life. Bottled water isn't all it claims to be, according to Choice magazine. After testing several brands, they discovered that the bottles didn't match the labels. Another study showed microplastic contamination in 93% of samples analysed. Bottled water can still contain contamination as according to a Natural Resources Defence Council (NRDC) study. These contaminants included phthalates, mould, microbes, benzene. trihalomethanes and even arsenic.

The smart solution is to have a water filter for your whole house or a tap and shower system. Jenny Dey from Northern Beaches Water Filters (www. northernsuburbswaterfilters.com. au) says, "There are simple inexpensive Brita type water jugs and undersink filters requiring plumbing, through to complex and expensive ionisers and reverse osmosis systems. Filters that remove chemicals, contaminants, parasites and fluoride, and then remineralise the water are in vogue." Mitch Ma from Kangen Water (www. kangenhq@gmail.com) says their medically-registered water restructuring systems from Japan are the gold standard for pure water. Kangen filters remove all the nasties then they alkalise water, give it a negative charge so it can pass through our positively-charged cellular aguaporins and make the water molecules miniscule for optimal absorption. Ma adds, "Kangen water is unmatched for retaining water's memory, heightening hydration, optimising nutrient assimilation and eliminating toxins." As cancer can't survive in an alkaline environment, Kangen water is considered an anti-cancer aid.

Troubled waters

Without water we'd die within days, but bad water could be killing us. Is your water an elixir or a dangerous drink? Caroline Robertson reports.

ID you know we lose around 12 cups of water daily through normal bodily functions? Losing as little as 2% of your body's water content can cause constipation, flaky lips, dry mouth, sunken eyes, and papery skin. Dehydration may also lead to headaches, fogginess and fatigue as the brain shrinks. The body commences conserving water by decreasing urination and sweating. Wee can take on a dark orange colour, breath a bad odour, and sweat becomes smelly. Muscle cramps, disorientation and drowsiness ensue. Inadequate water over a prolonged period can also reduce stomach mucus, increasing acid, which aggravates indigestion and heartburn. Food cravings and an inability to lose weight are connected with dehydration, as the liver needs lubrication to emulsify fats and release enzymes for assimilation. Many mistake thirst for hunger and decline into chronic dehydration. To reset your thirst mechanism avoid diuretic drinks and have at least two litres pure water for four weeks.

Toxic tap water

Before you sip 'safe' tap water, consider the cocktail chemical added to it by the Australian government. Of particular concern are aluminium sulfate, ammonia, chlorine, hydrofluorosilicic acid, and polyacrylamides. Other material detected in Australian water include rust, slime, algae, asbestos, detergents, petrol, pesticides, pharmaceutical medication, faecal matter, herbicides, arsenic, cadmium, chromium, chloroform, copper, mercury, nitrates, cryptosporidium, Guardia, viruses, bacteria, and blue-green algae. Chemicals added to Australian water to purify it are deemed safe, but high levels are added. Monitoring purity is also very permissive as the pesticide level allowed in our tap water is 20 times higher than limits set in parts of Europe.

Of all the additives, fluoride and chlorine raise the gravest questions. Though fluoride is added to water to prevent tooth decay, recent wide-scale US studies show little difference in tooth decay rates among children living in fluoridated versus non-fluoridated areas. The World Health Organization research also revealed tooth decay rates have declined just as rapidly in non-fluoridated western countries as they have in fluoridated. Because fluoride can cause dental and skeletal fluorosis, many countries don't add it to the water supply. It's also linked to arthritis, cancer, aluminium absorption, mental disability, metabolic disease and nerve damage. There's no fluoride in the water in Denmark, Finland, France, Germany, Italy, the Netherlands, and Sweden. Only 10

"Water is the driving force of all nature."

-Leonardo da Vinci

countries world-wide fluoridate more than 50% of their water supplies. Shockingly, Australia doesn't even use naturally-occurring calcium fluoride, but adds hydroflurosilicic acid - a toxic waste product from organophosphate fertiliser plants, also used as a rat poison and nerve gas.

Chlorine is added to water to kill microorganisms, but it's also a suspected carcinogen. Scientific studies link chlorine to cancers of the colon, bladder and breast. A 1992 Connecticut study found that women with breast cancer had



50 to 60% higher levels of chlorinated byproducts in their breast tissue. Chlorine binds easily to organic matter in water supplies, forming toxic by-products such as trihalomethanes and chlorinated hydrocarbons. Chlorinated hydrocarbons include endocrine disruptors dioxin and DDT, which are linked to decreased sperm count, infertility and reproductive cancers. Feel sleepy and dizzy after a long shower or bath? This is due to the chloroform gas, chlorine vapours which attack our nervous system, strip our natural oils, aggravate asthma and increase respiratory allergies. Chlorine has also been linked to eczema, high cholesterol, heart disease, thyroid disease, IBS, gastritis and intestinal dysbiosis, because it kills good bacteria.

High nitrate levels from farming have been detected in many rural areas of Australia. Nitrates are known to contribute to birth defects, bladder cancer and thyroid cancer. Western Australia's

Water Corporation recommends that babies under three months don't consume the water, due to high nitrate content. Australia is one of only a few countries that haven't banned the use of PFAs (polyfluoroalkyl or perfluoroalkyl chemicals.) PFAs are used to create non-stick cookware and in fire-fighting foam. In October last year, the ABC confirmed PFAs have been detected at more than 70 sites across Australia. About 6 million Americans are drinking water that contains above the EPA safety level. PFAs are linked to immune system suppression, cancer, brain damage, nervous system damage, fertility problems, and hormone disruption. There have been 50 cancer cases over a 15-year period near NSW's Williamtown air base, an area that has also been contaminated with PFAS chemicals from fire-fighting foam. 38

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