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# Ways to Minimize Harmful Toxins in Your Home

Highlighting just seven of the offenders that are common, and which can make your sanctuary up to 100x more toxic than polluted outdoor air! Here are ways to reduce your exposure to each one of these harmful toxins, so you can decrease your toxic load.

#### Chloroform

- 1. Reduce the temperature of your shower water.
- Install an in-home spa for showering and bathing we recommend a AnespaDX from Enagic to turn your shower and bathing experience into a 100% chloroform free experience. (hot mineral springs)
- 3. Open your bathroom window or turn on the exhaust fan when showering or bathing.
- 4. Ventilate areas with hot water appliances in use.

#### Phthalates and Polyvinyl Chloride (PVC)

- 1. Read labels and avoid products containing PVC or phthalates. Baby products, in particular, should be phthalate-free. Check for recycling codes V or #3 -- this means they contain PVC.
- 2. Don't eat food microwaved or stored in PVC plastic containers.
- 3. Ventilate rooms well.
- 4. Choose natural fibers for window blinds and shades. Cotton, bamboo, hemp, silk, wood, or linen would be preferable over PVC products.

#### **Pesticides**

- 1. An easy way to keep pesticides from entering your home is by having a no-shoes worn indoors policy.
- 2. Avoid the "dirty dozen"—foods that are known to absorb higher amounts of pesticides than others. (source EWG.ORG)
- 3. Use non-chemical pest control methods instead of harmful insecticides. Diatomaceous earth is harmless to humans and pets but will kill a host of common household pests, including dust mites and bed bugs. For your lawn, choose non-toxic weed and grub control products.
- 4. We recommend an in-home solution from Enagic SD501, which produces 11.5ph water which will strip the oil based pesticide from all fruits and vegetables.

#### **Heavy Metals**

- Sources you can choose to avoid or otherwise make conscious choices: antiperspirants, building materials, pesticides, vaccines, lead paints, and dental amalgams
- 2. Use a water filter that removes heavy metals from your drinking water. We recommend Enagic SD501 which removes 99% of most heavy metals.
- 3. If your home was built before the late 1970s, check for lead paint.
- 4. Avoid fish that are high in mercury: tuna, king mackerel, swordfish, shark, etc.
- 5. Avoid Teflon and Scotchgard-coated products

#### **Polybrominated Diphenyl Ethers (PBDEs)**

- 1. Avoid products containing PBDEs whenever possible. A reminder of sources: mattresses, pet beds, pillows, furniture cushions, furniture stuffing, carpets, and carpet padding.
- 2. Control your house dust. "Damp" cleaning methods will help.
- 3. Ventilate well.
- 4. Choose children's clothing and sleepwear that do not contain fire retardants.
- 5. Choose wool or cotton fillers over polyester and foam for furniture or bedding.

#### **Dioxins**

- 1. 95% of dioxins in your life come from animal fats. Lowering your rate of consumption of meat and dairy products will reduce your exposure.
- 2. Keep a no-smoking zone. Cigarettes contain trace amounts of dioxins.
- 3. Be mindful of burning products that contain chlorine, like wood treated with PCP and plastics.

### **VOC (Volatile Organic Compounds)**

- 1. Look for Zero-VOC or Low-VOC finishes and paints.
- 2. No smoking -- make your home a no-smoking zone.
- 3. Avoid pressed wood. Buy antique furniture or furniture made from solid wood. If you must buy particle board or pressed wood, try sealing it with a zero-VOC varnish or paint before it is brought into your living area.
- 4. Let new products "breathe" before bringing them into the home -- example, unwrap that new sofa or mattress and let it rest in your garage for 48 hours.
- Keep well ventilated -- the better the ventilation, the lower the VOC concentration. This is especially true with new products, fresh paint, or newlyinstalled carpets. With new paint or carpets, air out the room as long as you can.
- 6. Climate control: Low temperature and humidity will lower the levels of some VOC off-gassing. Formaldehyde is a good example of this.

#### **EMF** (Electromagnetic frequencies)

Electromagnetic frequencies (EMF) are produced by electrically charged objects, including everything from toasters to cell phones and satellites. Any source of EMF in proximity to another will produce overlap, or layering, and an additive effect. Over exposure to EMF has been linked to diseases such as ALS (Lou Gehrig's disease), Alzheimer's, cancer, childhood leukemia, Chronic Fatigue Syndrome, fibromyalgia, heart problems, miscarriages, Lyme disease and MS. EMF contributes to many chronic sleep disorders and has also been linked to the alarming increase of cancers, asthma, autism, ADD/ADHD and physiological and behavioral problems in children.

Electromagnetic fields, whether natural or man-made, are invisible electrical and magnetic waves constituting radiation. They and referred to as electromagnetic frequencies (EMF) or radiation (EMR). EMF is radiation. All electricity creates radiation.

#### **Health Consequences**

We're exposed to 100 million times more EMF radiation than our grandparents were, and exposure grows each year. EMF radiation surrounds us... and is inside us... 24/7. Many processes of the human body are regulated with bioelectrical signals. EMF radiation interferes with their healthy regulation. Tens of thousands of studies show that chronic exposure to EMF radiation can lead to weakened immunities and devastating illnesses like cancer.

"Electromagnetic pollution may be the most significant form of pollution human activity has produced in this century, all the more dangerous because it is invisible and insensible." *Dr. Andrew Weil, M.D.* 

EMF Radiation – Melatonin – Hormone-Sensitive (Breast) Cancers

Our body depends on the pineal gland to properly secrete the hormone melatonin while we sleep. Melatonin scavenges free radicals in all cells and hence is a potent antioxidant with anti-aging and anti-cancer properties. EMF radiation has been found to significantly reduce melatonin.

Because melatonin suppresses estrogen production, inadequate melatonin increases the turnover of breast cells, increasing the likelihood of malignant transformation, particularly in the presence of cancer-promoting agents, i.e. common environmental chemicals. So while melatonin plays a role in hormone-sensitive cancers, it is an important natural suppressor of breast cancer cell growth. Did you know that malignant breast tissue can absorb up to 577% more EMF radiation than healthy breast tissue, and that women undergoing breast cancer treatment should avoid wearing under wires in their bras!

#### Hard Science linking EMF Exposure to III Health and Cancer

The huge increase in electromagnetic energy in today's modern electronic-charged environment coincides with an alarming increase in new-age ailments such as chronic fatigue syndrome, chronic pain, tinnitus, depression, hormone dysfunction, Alzheimer's disease and leukemia, and with a huge spike in childhood cancers. The body of empirical evidence confirming that the EMF exposure causes health problems and damages human cells is very strong. Children are more at risk than adults and many children are now showing signs of electrical sensitivities. Long-term exposure to electrical contaminates are known to have a variety of adverse health effects including many types of cancer.

#### **EMFs are Scientifically Linked to III Health**

In short, EMFs interfere with our body's electrical communication system. They disrupt cellular function in every part of the body and interfere with the body's natural processes, such as sleep, hormone production, neurological function, immune response and our ability to heal. EMFs reduce our melatonin levels. Melatonin is an important neuro-hormone that is a potent, natural antioxidant that protects cells from genetic damage that can lead to cancer as well as neurological, cardiac, and reproductive damage

EMFs cause chronic inflammation in the body. Inflammation has been linked with cellular/tissue/organ damage, cancer, heart disease, autoimmune diseases, diabetes, neurological diseases, and Alzheimer's. EMFs trigger the immune system to release inflammatory substances such as histamines and cytokines as a protective mechanism. These markers of inflammation have been shown to highly correlate with asthma and other allergic reactions.

EMFs can over-stimulate the immune system, then suppress it and decrease T-lymphocyte production. T-lymphocytes orchestrate the immune systems response to infected or malignant cells. EMFs raise cortisol (stress hormone) in the body. This can lead to sleep disorders, depressed immunity, cardiovascular disease, autoimmune disorders, premature aging, neurological problems, and more.

EMFs cause cell membranes to be locked in an inactive state (oxidative stress) that prevents toxins, or free radicals, from leaving cells. There is evidence that this inactive state can damage DNA and prevent the body from repairing it, which is a first step to cancer. EMFs cause calcium ion efflux. Calcium ion alteration of cells by electromagnetic radiation is linked to neurological degeneration, to cancer, to dangerous heart arrhythmias, and many other health effects.

EMFs can elevate blood sugar levels and blood viscosity, which can be associated with symptoms such as headaches, chest pain, higher blood pressure, blurred vision, and fatigue among others.

Released in the year 2000 a study of 44,788 sets of twins from Sweden, Denmark and Finland concluded that environmental factors were the initiating event in the majority of cancers. The strongest contender and most likely culprit, is artificial (man-made) electromagnetic radiation.

On May 31, 2011 The World Health Organization (WHO) International Agency for Research on Cancer (IARC) recently classified radio frequency electromagnetic fields (EMFs) as possibly carcinogenic to humans (Group 2B). The official classification of wireless EMF as Group 2B puts wireless radiation in with 260 other substances already classified as possibly carcinogenic to humans this includes substances such as lead, styrene and the pesticide DDT. This decision mirrors the 2001 IARC finding that extremely low frequency (electrical power lines and appliances) be classified as a 2B Carcinogen based primarily with respect to childhood leukemia. It also said that there was "insufficient" data to draw any conclusions on other cancers.

In well-conducted, blind studies Professor Magda Havas at Trent University in Peterborough, Ontario found significant links between dirty electricity in homes and schools and diseases like Multiple Sclerosis and diabetes and to asthma, ADD/ADHD in children. Havas also found a link between cordless digital phones and changes in the heart rate of 40% of subjects tested.

#### The Bio Initiative Report 2012 Update

More strong, scientific evidence has been published linking EMF to adverse health including brain tumor risks from cell phones, damage to DNA and genes, effects on memory, learning, behavior, attention; sleep disruption and cancer and neurological diseases like Alzheimer's disease. Effects on sperm and miscarriage (fertility and reproduction), effects of wireless on the brain development of the fetus and infant, and effects of wireless classrooms on children and adolescents is addressed. Mechanisms for biological action and public health responses in other countries are discussed.

- Evidence for Damage to Sperm and Reproduction
- Evidence that Children are More Vulnerable
- Evidence for Fetal and Neonatal Effects
- Evidence for Effects on Autism (Autism Spectrum Disorders)
- Evidence for Electro hypersensitivity
- Evidence for Effects from Cell Tower-Level RFR Exposures
- Evidence for Effects on the Blood-brain Barrier
- Evidence for Effects on Brain Tumors
- Evidence for Effects on Genes (Genotoxicity)
- Evidence for Effects on the Nervous System (Neurotoxicity)
- Evidence for Effects on Cancer (Childhood Leukemia, Adult Cancers)
- Melatonin, Breast Cancer and Alzheimer's Disease Stress,
- Stress Proteins and DNA as a Fractal Antenna

#### **Terrifying Truth about Your Drinking Water**

With all of our advances in technology, industry, and science, can you believe that estimates say that there are **tens of millions of Americans still exposed to unsafe drinking water, every year?** 

In fact, in a 2018 research article published in the *Proceedings of the National Academy of Sciences of the United States of America*, scientists report that each year there are 16 million cases of acute gastroenteritis due to US community water systems.

Acute gastroenteritis is defined as "inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhea."

The problem is worst in rural areas, but even major cities face challenges with contamination—the more serious kind that can have lifelong health repercussions for residents.

Below are just four of the scariest toxins found within North America's water supply!

#### PERCHLORATE

Perchlorate is used to make fireworks and missiles, but it also finds its way into the water supply.

The Environmental Protection Agency (EPA) reports that over 16 million Americans are at risk of exposure to this chemical, across an astonishing 45 states.

#### **ARSENIC**

Arsenic is a naturally-occurring chemical contaminant that is poisonous to humans, and long-term exposure to high levels is associated with higher incidences of cancers like bladder and lung cancer, and even heart disease.

Several cities in the Southwest obtain their drinking water from sources that contain arsenic levels above EPA recommendations, including Los Angeles, Albuquerque, Scottsdale, and Tucson.

#### **LEAD**

Lead service lines (pipes bringing in the water) may have been banned in the US since 1986, but there are many old ones that have yet to be replaced. Estimates say that nearly 1 in 3 water systems within the United States still contain service lines made of lead.

#### **FLUORIDE**

The US Department of Health has taken action and reduced the recommended amount of fluoride in public drinking water. Despite this, the CDC reports that 66% of the population is still exposed.

One of the most worrisome risks of this toxin is compromised brain development in children. A 2012 analysis of research spanning 22 years found that children raised with water containing high levels of fluoride had significantly lower IQs than children in areas with lower levels.

Other toxins found in American water supplies include *chlorine* (problematic due to byproducts it creates, including chloroform), manganese, mercury, nitrate, PFOA (commonly used on non-stick pans), copper, and radioactive substances.

Reason Why You Should Fear Your Chlorine/Fluoride-Infused Showers or Baths!



When we imagine taking a shower or bath, most of us probably picture an experience of relaxation: the hot steam opening our pores, washing away the grime of the day, allowing us to step out refreshed. Of course, some showers are quick and militant. These may not be as fun, but can still be refreshing.

When it comes to a shower, what in the world could there be to fear? No, I'm not talking about serial killers lurking outside the shower curtain (though thanks to Alfred Hitchcock,

many people have this phobia). I'm talking about a chemical compound that's added to many municipal water supplies, which may be endangering your health: chlorine.

One of the most shocking components to all of these studies is that up to 2/3s of our harmful exposure to chlorine is due to inhalation of steam and skin absorption while showering. A warm shower opens up the pores of the skin and allows for accelerated absorption of chlorine and other chemicals in water. The steam we inhale while showering can contain up to 50 times the level of chemicals than tap water due to the fact that chlorine and most other contaminants vaporize much faster and at a lower temperature than water. Inhalation is a much more harmful means of exposure since the chlorine gas (chloroform) we inhale goes directly into our blood stream. When we drink contaminated water the toxins are partially filtered out by our kidneys and digestive system.

Chlorine vapors are known to be a strong irritant to the sensitive tissue and bronchial passages inside our lungs, it was used as a chemical weapon in World War II. The inhalation of chlorine is a suspected cause of asthma and bronchitis, especially in children... which has increased 300% in the last two decades. "Showering is suspected as the primary cause of elevated levels of chloroform in nearly every home because of chlorine in the water." Dr Lance Wallace, U.S. Environmental Protection Agency.

Most people associate chlorine/fluoride with swimming pools, and it's a fair association — those places stink of the stuff. However, chlorine is also found in the tap water in many regions across the United States. Even if you filter your tap water before drinking it, chlorine (and its by-products) can enter your body through your skin when you shower. Additionally, when the water temperature is hot, chlorine creates chloroform gas, which you then inhale.

Your skin is the largest organ of your body, and it is highly porous and absorbent. It may be possible to take in more chlorinated water through your skin during a hot bath or shower than through drinking it. So, if your home water system is treated with chlorine, and you take baths or showers without some sort of filtration system specifically designed to weed out the chlorine, you're chronically exposed.

It's not just chlorine itself that you have to worry about, either. Though chlorine alone has its own dangers (more on that in a bit), it also combines with organic compounds, such as the sweat and oil on our skin, to produce trihalomethane by-products, commonly referred to as THMs. The levels of THMs produced when you take a hot bath or shower are rather low, however, over time, these carcinogens could have increasingly detrimental effects.

#### The research

There is a significant body of research linking chlorine/fluoride and its by-products, including THMs, to adverse health effects. The following are just a few studies which have examined this topic.

Chlorine from drinking water can enter your body in several ways, including ingestion. You also inhale chloroform, a by-product of chlorine, when you take a hot shower or bath. According to an article from Science News, researchers found increases in chloroform in study participants' lungs of about 2.7ppb after a 10-minute shower. Warm water also further opens pores, so the combination of what your skin absorbs and your lungs inhale during a 10-minute shower is greater than the amount you would ingest drinking eight glasses of water from the same tap. In fact, studies at the University of Pittsburgh found less chemical exposure from ingesting chlorinated water than from showering or washing clothes in it. The study found that, on average, absorption through the skin was responsible for 64 percent of waterborne contaminants that enter the human body.

**Cancer risk** -The authors of a 2009 study published in the journal *Science of the Total Environment* wrote:

"Exposure to trihalomethanes (THMs) through inhalation and dermal contact during showering and bathing may pose risks to human health. During showering and bathing, warm water (95 to 113 degrees Fahrenheit) is generally used. Warming of chlorinated supply water may increase THMs formation through enhanced reactions between organics and residual chlorine. Exposure assessment using THMs concentrations in cold water may under-predict the possible risks to human health."



For their study, researchers developed a "formation rate model" for THMs, and used it to test THM concentrations in warm water across three cities in Ontario, Canada: Toronto, Ottawa and Hamilton. They then compared cancer risks in these cities to THM concentrations. On their results, the study authors wrote:

"This study predicted 36 cancer incidents from exposure to THMs during showering for these three cities, while Toronto contributed the highest number of possible cancer incidents (22), followed by Ottawa (10) and Hamilton (4). The sensitivity analyses showed that health risks could be controlled by varying shower stall volume and/or shower duration following the power law relationship."

Even if the exposure to these chlorine by-products could be lessened by taking cooler showers, and shorter showers, the fact that a cancer risk is present at all is significantly worrying.

#### Even the EPA's own scientists agree:

There is a lot of well-founded concern about chlorine. When chlorine is added to our water, it combines with other natural compounds to form Trihalomethanes (chlorination byproducts), or THMs. These chlorine byproducts trigger the production of free radicals in the body, causing cell damage, and are highly carcinogenic. "Although concentrations of these carcinogens (THMs) are low, it is precisely these low levels that cancer scientists believe are responsible for the majority of human cancers in the United States". The Environmental Defense Fund

Simply stated chlorine is a pesticide, as defined by the U.S. EPA, whose sole purpose is to kill living organisms. When we consume water containing chlorine, it kills some part of us, destroying cells and tissue inside our body. Dr. Robert Carlson, a highly respected University of Minnesota researcher whose work is sponsored by the Federal Environmental Protection Agency, sums it up by claiming, "the chlorine problem is similar to that of air pollution", and adds that "chlorine is the greatest crippler and killer of modern times!"

Breast cancer, which now effects one in every eight women in North America, has recently been linked to the accumulation of chlorine compounds in the breast tissue. A study carried out in Hartford Connecticut, the first of its kind in North America, found that, "women with breast cancer have 50% to 60% higher levels of organochlorines (chlorination by-products) in their breast tissue than women without breast cancer."

#### Respiratory, skin and eye irritation

Two very well-known health risks of chlorine/fluoride exposure are respiratory trouble and irritation of the skin and eyes. You may feel your eyes burning after swimming in a swimming pool, or after taking a shower if your water is significantly chlorinated. People who have asthma or allergies may notice their symptoms worsening. Sometimes these effects are mild, but in some individuals, they may be serious.

During a 2007 study published in the *European Respiratory Journal*, researchers tested the association between swimming pool employees in the Netherlands and instances of respiratory complications. For the study, questionnaires were provided to 624 swimming pool employees across 38 facilities. The researchers also took samples of chlorine levels in these facilities.

On their results, the study authors wrote:

"Employees with higher exposure reported upper respiratory symptoms with greater frequency. Upper respiratory symptoms were statistically significantly associated with cumulative chloramine levels... general respiratory symptoms were significantly elevated compared with a Dutch population sample." These upper respiratory symptoms included sinusitis, throat hoarseness and a lost voice. The study authors also observed:

"An excess risk for respiratory symptoms indicative of asthma was observed in swimming pool employees. Aggravation of existing respiratory disease or interactions between irritants and allergen exposures are the most likely explanations for the observed associations."

Although these associations were found in swimming pool employees who were around high concentrations of chlorine on a daily basis, it is not far-fetched to speculate that they may occur in people who are continuously exposed to chlorinated tap water in their showers and baths. This may be especially dangerous to people who have pre-existing respiratory allergies or asthma.

**Cardiovascular defects in infants** - Some research has associated chlorine with heart defects in infants. In a 2002 study published in the journal *Environmental Research*, researchers explained:

"Drinking water disinfection by-products have been associated with an increased risk for congenital defects including cardiac defects. Using Swedish health registers linked to information on municipal drinking water composition, individual data on drinking water characteristics were obtained for 58,669 women. Among the infants born, 753 had a cardiac defect. The risk for a cardiac defect was determined for groundwater versus surface water, for different chlorination procedures, and for trihalomethane and nitrate concentrations."

"The individual risk for congenital cardiac defect caused by chlorine dioxide and trihalomethanes is small but as a large population is exposed to public drinking water, the attributable risk for cardiac defects may not be negligible."

While this study examined drinking chlorinated water, and not bathing in it, many people (especially children) swallow at least a bit of water every time they bathe.

A study published in the year 2000 in the *Journal of Orthomolecular Medicine* linked chlorine exposure in tap water to a variety of ill health effects. These included worsening dandruff, weakened immune system, and destruction of beneficial gut bacteria, potential artery damage, carcinogenic by-products and an increased chance of miscarriage.

Furthermore, exposure to chlorine may lead to hormonal disruption, digestive disturbances including bloating and indigestion, and eye infections such as conjunctivitis (a.k.a. pinkeye).



First of all, you'll want to find out if your home tap water is indeed chlorinated/fluoridated. This can be accomplished by making a quick call to your city,

town or county water treatment plant. This information may also be available online, but calling may be beneficial, as some websites may not be updated frequently. If you look online, make sure dates are current.

If your area does use chlorinated/fluoridated water, there are several steps you can take. You definitely don't want to be drinking this stuff; installing a well-researched water ionizer on your taps is a great first step. Drinking hydrogen enriched water is key to longevity and preventing oxidative stress. (Rusting internally) Please read my Clinical Overview of the benefits of hydrogen enriched water.



Used and loved throughout 82 countries, the LeveLuk K8 now comes in ONE machine capable of speaking all notifications in FIVE languages! English, German, French, Italian, Spanish

The K8 (Kangen 8) is Enagic's most powerful antioxidant machine - featuring 8 platinum-dipped titanium plates for improved water ionization and increased antioxidant production potential.

# **Powerful Performance**

The all new K8 features a revamped modern design that coordinates beautifully with today's stylish kitchens. It has the same powerful performance in an all-new package. Smart New Look, Same Reliability! Generates: **Strong Kangen Water**, **Kangen Water**, **Neutral Water**, **Beauty Water**, and **Strong Acidic Water**.



Large LCD panel

The K8 is extremely user-friendly, thanks to a large LCD panel and clear voice prompts. With just a touch of a button, you can have access to any of the 5 waters you choose. Your machine will confirm the water you have selected with a pleasant voice, and in moments the machine will generate healthy, ionized water through a flexible pipe.

# **8 Titanium Plates**

The secret is contained inside, with eight platinum-coated titanium plates. You can easily access 1.2 to 2 gallons of delicious and wholesome Kangen Water® a minute from this fully-automatic process.

# The NEW exclusive ANESPA DX Home Spa System transforms your ordinary bathroom into a natural hot spring resort.

ANESPA DX produces a continuous stream of healthy ionized mineral water. With a new, larger ceramic cartridge that removes almost 100% of chlorine/flouride and other harmful substances in your tap water, and adds safe, moisturizing minerals that are healthy for your skin and hair. Enjoy a lovely shower or bath in ANESPA DX hot spring water!



# **Your Home Spa System**

Treat yourself to a soothing hot spring experience with the ANESPA DX! With an abundant flow of mineralized water and a relaxing massage shower head, your bathroom can instantly turn into a calming hot spring oasis. Generates: **Mineral ion water for your bath or shower.** 



# **Removes Harmful Substances**

The cartridge purification system effectively removes chlorine and bacteria, leaving you with a fresh, invigorating feeling. Protect your delicate skin from the harmful effects of tap water. Active charcoal filter Futama-ceramic inner filter.



## **Mineral Ion Water**

Contains a blend of natural hot spring ingredients and minerals, giving you the feeling that you're enjoying a pleasant hot spring and taking advantage of the mineral ion water. Relax and enjoy!

# The Ultimate **Home Spa** Experience

## Tufa

A mineral stone taken directly from the Futamata Radium Hot spring in Hokkaido, Japan. This stone gives the water the same gentle and relaxing effect of a hot spring.

## **MIC** stone

Generates activated mildly alkaline water which is good for your skin.

## **Power stone**

Generates strong negative-ions.