



## Natural Life Consulting, LLC

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### **DO YOU KNOW WHAT IS IN THE WATER FROM YOUR FAUCET?**

#### **METALS – HERE ARE SOME OF THEM:**

**ALUMINUM** – Is everywhere within our environment, including the air we breathe. Aluminum is also found in many vaccines, antiperspirants, soft drink cans, foil, cookware, over-the-counter drugs (like antacids, anti-diarrheals, pain relievers), baking powder, refined foods, processed cheeses, and other products. Aluminum sulfate is added to tap water in water treatment plants.

**PETS** – Aluminum can be found in pet foods, water, vaccines, and metal food bowls. Too much aluminum can cause an animal to have extra itchy skin, loose stools, and a myriad of medical problems.

**HUMANS** - It has been linked to health problems such as decreased liver and kidney function, forgetfulness, speech disturbances, inflammation, headaches, confusion, muscle weakness, bone pain, deformities, fractures, seizures, speech problems and slow growth of children.

**ARSENIC** – Is a natural element in soil, rocks and groundwater in many countries including the United States, Canada, China, and Brazil. When combined with other elements, arsenic can be used to preserve wood and kill insects. Arsenic can make its way into the water supply from natural earth deposits or industrial pollution or from farming methods using pesticides and fertilizers. It is found in antibiotics fed to conventionally raised chickens. To minimize arsenic in poultry, eat organic pastured-raised eggs and chickens. Rice and tobacco take up arsenic from the soil more than most other plants do.

**HUMANS (PETS HAVE MANY OF THESE TOO):** Arsenic poisoning can cause stomachaches, headaches, drowsiness, abdominal pain, diarrhea, vomiting, muscle cramps, numbness and tingling of extremities (hands and/or feet), skin changes, diabetes, heart and lung disease, kidney disease, confusion, developmental defects, decreased memory, dementia, POOR pregnancy outcomes, bladder and lung cancer. You can read more at the World Health Organization website, [www.who.int](http://www.who.int). Bloodwork does not test for arsenic. Hair analysis for heavy metals may detect previous exposure.

**MERCURY** – Is found everywhere in our environment and used in many household products, industrial items including thermostat, fluorescent light bulbs, soil, our water, and vaccines. Individuals who eat a lot of fish and shellfish could have higher mercury levels.

**HUMANS:** - High levels can attribute to health complications such as Alzheimer's, asthma, arthritis, autoimmune disease, chronic disease, learning disorders, lupus, bloating, heartburn, joint pain.

**PETS:** - High levels of Mercury can affect the following: nervous, gastrointestinal, respiratory, and reproductive systems

**CADMIUM** – This is extremely toxic. Commonly found in phosphate fertilizers, some industrial paints and pigments, fumes from burning waste, metal soldering and welding, cigarette smoke, evaporated milk.

**HUMANS – PETS:** Exposure to cadmium promotes the production of inflammatory cytokines, depletes antioxidants, harms DNA directly and disturbs the DNA repair system that helps prevent cancer.

**LEAD** – Lead is usually found in tap water due to lead solder in plumbing and corroded town water supply pipes. It can be found in old paint. In 1978 new guidelines were set to eliminate lead in paints and in 1996 new guidelines were created for home developers to encourage safer drinking water.

It can also be found in soil, ground water, glass, rubber products, gasoline, car exhaust fumes, canned food, hair dyes and newspaper print.

**PETS:** High levels of lead in animals can affect the central nervous system: mental dullness, unresponsive, or walk aimlessly. In other cases, you can have muscle twitching, paralysis of the tongue, circling and stargazing. Typically, bloodwork can detect lead levels.

**CHROMIUM** – You can find chromium naturally in rocks, plants, soil, volcanic dust, industrial pollution, and gases. The EPA does recommend a limit for chromium in drinking water.

Researchers have found that high amounts of chromium can lead to severe health effects such as cancer, reproductive harm and damage to the liver and kidneys in both pets and humans.

**COPPER** – Copper is an element that occurs naturally in plants, water, air, and soil. Mostly used to make wiring, sheet metal and plumbing materials. All living organisms (plants, animals, and humans), need a trace amount and it can be absorbed from foods, drinking, and breathing. It has been commonly used in agriculture to treat plant disease (mildew), and in water treatment and as a preservative for woods, leathers, and fabrics.

**PETS:** Too much copper can cause liver damage. This can be diagnosed by a liver analysis by your animal's veterinarian.

**HUMAN:** People who have copper toxicity develop nausea and vomiting but other symptoms can include diarrhea, muscular weakness, and pain/burning sensation in the abdominal area.

<https://www.webmd.com/diet/what-to-know-copper-toxicity> (to read more)

## **CHEMICALS – HERE ARE SOME OF THEM:**

**CHLORINE** – Is added to tap water to kill bad germs such as Salmonella (<https://www.cdc.gov/salmonella/>), Campylobacter (<https://www.cdc.gov/campylobacter/>), and Norovirus (<https://www.cdc.gov/norovirus/>). Unfiltered water can expose you to dangerous chlorine vapors and chloroform gas. These gases can evaporate into the air from toilet bowls, washing your clothes or dishes or taking a hot shower or bath. One suggestion is to open windows on opposing sides of your home to cross ventilate; keeping them open 5-10 minutes a day can help remove these gases.

Chlorine poisoning can occur when you touch, swallow, or inhale chlorine. Respiratory symptoms include [coughing](#), and [difficulty breathing](#). Digestive symptoms could include burning in the mouth, swelling of the throat, and/or throat pain.

<https://www.healthline.com/health/chlorine-poisoning> (click on the link for further information on symptoms)

**CHLORAMINES** – Chlorine binds with organic material in water and forms chloramine. Research has shown it to be more toxic than chlorine. It is one of the major disinfectants used in public water systems (along with chlorine). Vegetables may be treated with chlorine or chloramine to delay spoilage.

Chloramine fumes can cause an individual to become congested with sneezing, sinus pressure, coughing, choking, wheezing, shortness of breath and asthma. These problems are most encountered after swimming in pools containing excess chloramines.

<https://www.cdc.gov> (click on the link for further information on symptoms)

**GLYPHOSATE** – Is an active ingredient in weed killer products. The most well-known product is Roundup. Roundup is used in farming, in home gardens, and on lawns worldwide.

If swallowed in large amounts, it can cause nausea and vomiting and if left on the skin can cause irritation. Studies in animals show developmental effects in fetuses, such as lower body weight and problems with bones and organ growth. Any symptoms of illness or chronic disease can be caused by the build-up of glyphosate in the tissues.

Go to the agency for Toxic Substances and Disease Registry [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov) to read more.

**POLYFLUOROALKYL SUBSTANCE (PFAS)**-Fluorinated carboxylic acid (PFOA) and Fluorooctanesulfonic acid (PFOS). They can be found in commonly used items such as non-stick cookware, pizza boxes and stain repellants. It is found in drinking water especially if near landfills and wastewater treatment plants.

Large amounts of PFAS can increase cholesterol levels, can change liver enzymes, and depress the immune system. Birds can die if exposed to the air when the owners cook with non-stick pans.

<https://www.atsdr.cdc.gov/pfas/health-effects/index.html> (To read more)

## **ENVIRONMENTAL PROTECTION AGENCY (EPA) (update March 2023)**

PFAS (Polyfluoroalkyl Substance) this man-made chemical has been used since the 1940's. The Environmental Protection Agency (EPA) has known the risks from PFAS since the 1990's. PFAS are detectable in nearly all Americans.

The first time EPA was alerted to the problem of PFAS in the drinking water was 2001. In 2016 the agency issued a non-enforceable lifetime health advisory for PFOA and PFOS in the drinking water.

In March 2023 the EPA proposed new bold limits. The Biden-Harris administration announced the first ever nation drinking water standard. This proposal requires the EPA to take major steps to protect the public from PFAS pollution.

### **Low doses of PFAs have been linked to: (EPA update March 2023)**

- Suppression of the immune system
- Harm development and reproductive system
- increased risk of certain cancers
- Increase cholesterol levels
- Changes in liver enzymes
- Decreased vaccine response in children
- Increased risk of high blood pressure or pre-eclampsia in pregnant woman
- Increased risk of kidney or testicular cancer

Some of the highest PFAS levels detected are Maine, Philadelphia, New Orleans, Northern New Jersey, and suburbs of New York City.

In the absence of Federal standards, states started to set their own legal limits. New Jersey was the first state to set a max contaminant level for the compound. Some other states have now set or proposed limits or guidelines for PFAS in drinking water, these states include California, Connecticut, Massachusetts, Michigan, Minnesota, New Hampshire, New York, North Carolina, and Vermont.

**Best overall filters to take out PFAS:**

Longest Filter Life:	Travel Berkey	Removes 100% of PFAS
Lowest Initial Cost:	Zero Water	Removes 100% of PFAS
Honorable Mention:	Clearly Filtered	Removes 100% of PFAS
EWG Tester Favorite:	Epic Water Filter	Removes 98% of PFAS

**Some other filters EPA tested:**

Pur Plus 7 cup pitcher	Removes 79% of PFAS
Brita Filter Pitcher 6 cup	Removes 66% of PFAS
Aquagear Filter Pitcher	Removes 65% of PFAS
Amazon Basic 10 cup Water Pitcher	Removes 54% of PFAS
Seychelle Gen 2 Dual pH20 Pure Water Pitcher	Removes 48% of PFAS
Brita Elite Filter	Removes 22% of PFAS

<https://www.ewg.org/research/getting-forever-chemicals-out-drinking-water-ewgs-guide-pfas-water-filters?emci=dfae68ea-5e1f-ee11-a9bb-00224832eb73&emdi=7dcb6214-da1f-ee11-a9bb-00224832eb73&ceid=992143> - EWG Environmental Protection Agency

<https://www.atsdr.cdc.gov/pfas/health-effects/index.html> - Agency for Toxic Substances and Disease Registry

<https://www.epa.gov/newsreleases/biden-harris-administration-proposes-first-ever-national-standard-protect-communities> - Environmental Protection Agency

Toxic Metals (handout from office) – Written by Carolyn Favazza and Martha Lindsay