

Fluoride Truths Handout^(R1)



Fluorides are compounds that contain the element fluorine. Fluorine, chlorine, bromine, and iodine all belong to the halogen group (also called halides) in the periodic table. They all have a similar ionic charge which makes for the possible, interchangeable use of these chemical elements in enzymes and receptors, which can have many consequences.

The fluoridation of drinking water has been ongoing since the 1940s in many countries, yet it remains a highly controversial topic. Epidemiological studies have shown that fluoride is a developmental neurotoxin that has a wide variety of health concerns for bones, teeth, thyroid, brain health and more. In particular because fluoride encourages calcification, be aware of unique patient case concerns and considerations regarding the risk/progression of soft tissue calcification (e.g. kidneys, arteries, glands).

Some key health issues that have been raised with fluoride exposure include:

- ❖ **Bone and teeth health: Fluoride has been found to increase the incidence of fluorosis in the teeth and bones and increase the risk of fractures** (remember: dense bones can still be brittle).
- ❖ **Thyroid health:** fluoride has been shown to contribute to thyroid inflammation and thyroid cell damage and increase the risk of Hashimoto's thyroiditis. Here is an excellent overview of this topic:
<https://thyroidpharmacist.com/articles/fluoride-and-your-thyroid/>
- ❖ **Neurotoxicity:** Fluoride has been shown to affect brain development of children, lower IQs in children and increased risk of ADD and ADHD.
- ❖ **Sleep:** Fluoride accumulation in the pineal gland can reduce the production of melatonin.
- ❖ **Other** potential health effects include acne, increased lead absorption and osteoarthritis.

An important health priority should be minimizing patient exposure to fluoride. Support your patients in considering and implementing these many opportunities!

- Filter fluoride out of your water

- Since the main source of exposure for most people is tap water, **filtering the fluoride out of your home's water is an effective strategy to reduce your overall exposure.**
- You can find out whether or not fluoride is added to your water supply by checking with your water company or requesting a water quality report. If it indicates a level of fluoride near 0.7 ppm or above, it is likely your water supply is artificially fluoridated. Ideally it's under 0.1 on your report. If your water quality report lists the level of fluoride as ND (not detected), that's even better.
- Well water will not have added fluoride but can have naturally occurring fluoride and should also be tested.
- **Water can be filtered via a whole-house water filter, an under the counter water filter (for drinking and cooking), or a countertop filter.** Reverse Osmosis can be used for the whole house (which is very effective but often expensive) or under the kitchen sink for drinking and cooking water. While the countertop units are the most affordable, they can be inconvenient to use. **Be sure to do your research before picking one** as some very popular brands are not as effective in filtering out fluoride.
- **Filtering shower/bath water does matter!** Remember that skin absorption of water contaminants is significant, and absorption increases with hotter water and longer shower times. Inhalation of toxins also occurs in the shower. Shower filters can be purchased to filter out various chemicals.

- Dental exposure

- Use **fluoride-free toothpaste and oral hygiene products.** Dental floss may also have fluoride additives, so be sure to check the fine print in the ingredients list.
- Say no to **fluoride treatments** at the dentist and seek out a holistic dentist which uses effective alternatives to support tooth health.

- Cooking:

- **Avoid all Teflon pans** which contain fluoride. We know: that non-stick surface is so convenient for cooking! [A research study](#), however, that measured the fluoride content of water that had been boiled for fifteen minutes in pots made of aluminum, stainless steel, pyrex, and Teflon revealed that the water boiled in Teflon contained three times more fluoride than any of the other samples.

- Nutrition:

- **Eat an organic diet** in order to avoid fluoride-based pesticides and herbicides.

- Ideally, only **drink herbal tea** if you drink tea (or at least, prioritize green tea which does have some fluoride but much less than black and rooibos). Tea naturally takes up fluoride from the soil. Instant iced tea mixes and bottled iced teas, which combine the tea with fluoridated water, seem to contain the most. Unfortunately, this includes Kombucha. Sparkling probiotic drinks not made with tea are a good alternative.
- Avoid other prepared drinks made with fluoridated water, such as:
 - Flavored beverages (sports drinks, iced teas, etc)
 - Juice made from concentrate (non-organic juice may also have been sprayed with fluoride based pesticides)
 - Choose full fat dairy over low-fat (low fat uses water to thin out)
- **Alcohol**
 - If you drink **beer**, choose beers from continental Europe, as US beers are made with tap water that is likely fluoridated. Make sure they are actually brewed in Europe and are not just a European brand. For example Beck's is a German brand that is often brewed in the US. Ireland's water is fluoridated, as is that in parts of Great Britain. Scotland's water is not.
 - **Scotch** is fluoride free, but American **whiskey** likely is made with fluoridated water.
 - **Wine**. A fluoride-based pesticide called cryolite is commonly used on grape crops, especially grape crops in California. **Choose organic wine** to avoid pesticides in general (commercial grape crops for wine are heavily sprayed in general). Cryolite is sprayed on all kinds of grape crops, not just wine, so it affects grape juice too.
- **Use filtered water for cooking** soup, broth, rice, quinoa, potatoes, pasta, beans, steaming vegetables, etc.
- **Food packaging** can have PFAS which contains fluoride (the F in PFAS)
 - Microwave popcorn
 - Pizza boxes
 - Takeout containers
 - French fry bags and sandwich wrappers
- **Occupational exposure can come in particular from industries** that produce or work with aluminum, fertilizer, iron, oil refining, semiconductors, welding, and steel. In particular, respiratory exposure to fluoride is highly associated with respiratory disease.
- **Medications**. Several medications contain fluoride. [Check out this link for more information](#). Some common ones include:
 - Prozac, Lexapro, Celexa, Paxil, Luvox
 - Prevacid
 - Diflucan (fluconazole)
 - Fluoroquinolone Antibiotics such as Cipro, Levaquin, Penetrex, Tequin, Factive, Raxar, Maxaquin, Avelox, Noroxin, Floxin, Zagam, Omniflox and Trovan.
 - Celebrex
 - Statins: Lipitor (atorvastatin), Zetia, Baycol, Lescol (fluvastatin)
 - Dexamethasone
 - Flonase, Flovent
 - Drugs whose metabolites are known to feature fluoride ions include: fluorinated anesthetics, Cipro, Niflumic acid, Flecainide, and Voriconazole.
- **Around the home:**
 - PFAS are also found around the home and you can [learn more about them at the Environmental Working Group's site](#).
 - The most notorious one is PFOA, a key ingredient in Teflon which can be found not only in cooking pans but also in:
 - Stain resistant carpet, furniture, and clothing
 - Canned air keyboard cleaners
 - Home pesticide spray cans
 - Flea and tick prevention for pets
 - Makeup and nail polish - look for "fluoro" in the ingredients and use EWG Skin Deep or Think Dirty app

Excerpted from <http://fluoridealert.org/issues/sources/>