

Here Are Some Facts About Plastic Water Bottles

- Plastics bottles have a chemical in it called Bisphenol A, or BPA, and this
 chemical seeps into the water and when we drink the water, we also ingest
 these chemicals. This chemical is said to cause diseases such as cancer and
 lead to hormonal issues.
- BPA and other plastic toxins can then make their way into your bloodstream, which can cause a host of problems including various cancers as well as liver and kidney damage.
- In a recent study by German researchers, nearly 25,000 chemicals were found lurking in a single bottle of water.

• Another chemical that is considered toxic to humans is antimony. Antimony is used in the manufacturing process of plastic bottles and when exposed to humans in high doses it can lead to lung diseases, heart problems, diarrhea and stomach ulcers (Water Treatment Solutions, 2018).



- These chemicals are already present in the water but the more the bottle is out in the heat, the more chemicals leach out and enter the liquid (Pawlowski, 2018).
- Not only does bottled water absorb some of the chemical compounds in the plastic bottle, but recent studies suggest that plastic itself can be present in the water consumers drink. In fact, a World Health Organisation (WHO) study found that in 93% of popular bottled water brands tested the water contained plastic fibers (similar results were also found in a study conducted by Fredonia State University of New York).

• Usage of plastic bottles is dominant everywhere. The majority of people on this planet have used a plastic bottle sometime during their life, which is terrifying because constant use of plastic bottles can cause several problems for the future. The more we ingest these chemicals, the more prone we are to illnesses and diseases. This issue applies to almost everyone due to the fact that a large number of people in society use plastic bottles. This shows the negative impact plastic bottles have on humans and their physical health.



- Fish are impacted by plastic. Each year, around 22 billion water bottles are
 wasted in which the majority are released into the ocean, releasing toxic
 chemicals like BPA into the water that can cause diseases and hormone
 cancer.
- Furthermore, many of the sea animals that are present in the ocean ingests this plastic since they think it is food to consume. Many of the fish that consumes this plastic becomes contaminated and the same fish are

eventually consumed by humans.

- Plastic bottles break down into microscopic particles and contaminate the soil and are absorbed into plants that we eat.
- While bottled water is often shown as being higher quality than tap water, the fact is that in many instances bottled water is glorified tap water. While some companies put their water through additional filtering before bottling it, many do not and simply charge for the packaging.
- 90% of plastic water bottles are not recycled after use, meaning that billions of plastic bottles are entering our landfills, and even our oceans, every year. In fact, so much plastic waste makes it into our oceans that it is estimated that over a million marine animals are killed by plastic waste each year, often due to eating plastic.



- ...water that is bottled from special springs is rare, and the fact is that most bottled water comes from similar sources as your public water supply, meaning that there is likely nothing special about your bottled water other than its branding.
- The EPA regulates public tap water supplies and sets legal limits for hundreds of contaminants that could show up in water, and they regularly test for these contaminants. As a result, bottled water undergoes very little regulation, and recent studies have found traces of phthalates, mold, microbes, arsenic, and thousands of other contaminants in bottled water.



Exposure to the toxins in plastic water bottles has also been linked to higher rates of disease as adults. It has been found that people who drink a lot of bottled water, and in particular those who had high concentrations of BPA in their urine, were three times more likely to suffer from cardiovascular disease, and were 2.4 times more likely to develop Type 2 diabetes than individuals with low concentrations of BPA in their bodies. Even BHPF, a compound which is now being used in many plastic bottles instead of BPA, has been found to have dangerous side-effects similar to that of BPA. Thusly, even as the plastic industry tries to innovate to make plastic bottles "safer", it becomes more apparent that the safest thing to do is to avoid drinking bottled water whenever possible.

 While more manufacturers are choosing to sell BPA- free plastic water bottles, it is still a common component found in water bottles made from Type 7 plastic. One of the many problems with BPA is that it acts as a



fake- estrogen, and when consumed in water through leaching plastic it can cause a variety of chromosomal abnormalities that have been tied to birth defects and developmental disabilities in children. Exposure to the estrogen in BPA can also cause decreased fertility in both men and women, and when children are exposed to BPA while in the womb this can lead to complications later in life such as hyperactivity disorders, early-onset puberty, and an increased risk for certain cancers.

It can also lead to weight gain. It is no secret that obesity in the United States has reached epidemic proportions. However, if you have been trying to lose weight and nothing seems to work, you may be surprised to learn that your bottled water consumption could be to blame. Both BPA and BHPF have been found to disrupt the hormones in our bodies. In particular, it is the effect both of these compounds have on the estrogen levels in both men and women that has been tied to weight management problems. Exposure to the compounds in plastic water bottles can ultimately influence the rate that fat is stored in your body and where fat is stored, which can cause weight gain and difficulty losing weight.

Reusing water bottles also poses a danger. In an effort to reduce their carbon footprint, some people have started reusing disposable plastic water bottles by refilling them multiple times. While this may seem like a good idea in concept, it can actually be dangerous to reuse a single-use water bottle. When you reuse these bottles you risk additional chemicals and microplastics from the bottle entering your drinking water. Additionally, the shape of these bottles makes it nearly impossible to clean them, and the soft plastic they are made out of creates a perfect breeding ground for bacteria, which can make it hazardous to your health to reuse these bottles.



- Americans use 3 million plastic water bottles every hour which is far too much.
- Considering the risk that drinking bottled water can pose, you may want to consider investing in a high-quality metal reusable water bottle and a water filtration system for your home. This will help to ensure the health of you and your loved ones while reducing your carbon footprint, which can help to preserve the environment for future generations.









I hope you understand what plastic water bottles can do to our health and our environment. This is why we have given this presentation to show you what damage the continued use of plastic water bottles in our schools can do.

We would like you to think about this presentation and everything you learned. We'd like for you to ban the use of plastic water bottles in our school district.

Instead we can use refillable water bottles with the refill stations. For meetings, you could bring reusable cups or mugs and wash them.



From: Apprentice Earth Rangers. Leah, Jada



The End!



