



# Bottled Water, Is it Good or Bad?

By Christopher Ferrin



How much water do you drink each day? Does that water come from the tap or from a bottle? In today's age, water bottles have begun to gain more and more popularity. The drinking fountain is starting to become obsolete and almost everyone measures how much they drink based on the size of a bottle. There are several benefits that arise from using water bottles, but there are also several problems that arise through their continual use.

The popularity of plastic bottles has grown to some of the benefits that they bring to society. Due to the convenience and availability, plastic water bottles have become very popular to the general public. When you go to the grocery store, you are able to

grab a bottle out of a refrigerator and begin to drink it immediately after purchase. In addition, it is easy to grab when you need to leave your home in a hurry in order to make it to an appointment on time. Not only is bottled water more available, but it is often more clean than tap water in specific areas of the world ("Bottled Water Pros and Cons"). Bottled water is

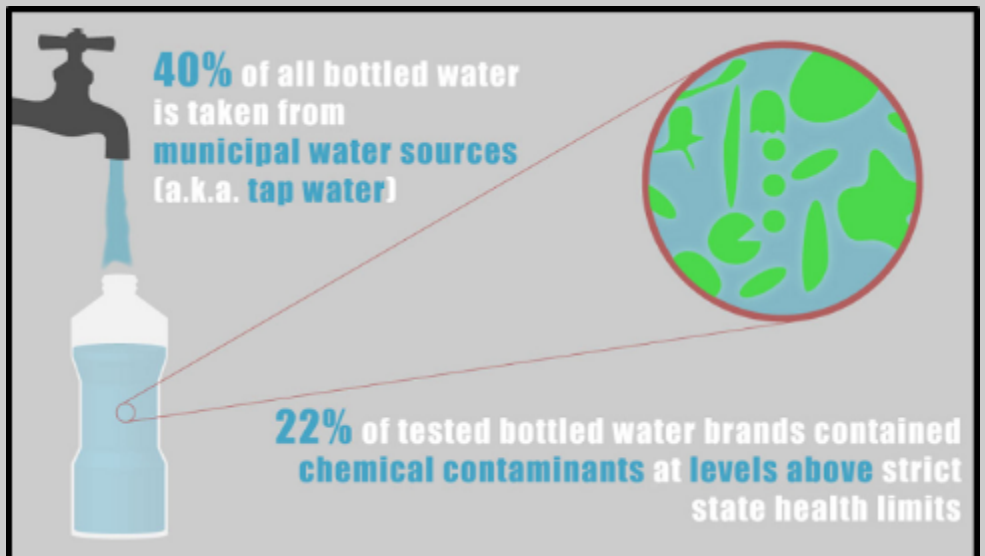
free of almost any form of contaminants that are carried by water, such as *E. coli*. In third-world countries that have small amounts of clean drinking water, such as those found in Africa, bottled water serves as an amazing source for clean water for its inhabitants ("Cruising Chemistry").

There are several negative effects that arise from the use of plastic water bottles. The first negative thing about bottled water is the cost. To use a gallon of tap water, it costs approximately \$0.0015. A gallon of bottled water costs about \$10.00, which is 10,000 times the cost of tap water. Another downside to the use of bottled water is the number of tests required by the Environmental

	VS	
×	tested for <b>e. coli</b>	✓
×	required to provide <b>source</b>	✓
×	required to produce <b>quality reports</b>	✓
✓	can still be distributed when <b>tap water standards are not met</b>	×

Protection Agency, as well as the Food and Drug Administration. While municipal water sources have to test for several contaminants and give the source of the water, water that is bottled is not required to do those things ("Bottled Water Pros and Cons").

Another negative effect of using plastic water bottles comes from the use of plastic itself as a storage device. In order to produce one plastic bottle, it requires three times the amount of water to make it than it does to fill the bottle. In addition, oil is used to create plastic. To make all of the plastic bottles produce in the United States each year, it takes approximately 17 million barrels of water. That is enough to fuel one million cars for a year ("Bottled Water Pros and Cons"). Another concern is if plastic is safe to use for humans. It is believed that as food or liquids are stored in plastic, harmful chemicals are released into those items from the plastic. Some studies have shown how some of these



chemicals can lead to cancer or birth defects (Wilson).

Not only is it possible for plastic to be harmful to humans, but it can damage the environment. Since plastic is made from oil, it takes a while to decompose in a landfill. Instead, plastic breaks down into smaller pieces, but is never completely decomposed. Often times, animals will consume these because they mistake it for food. This can either kill the organism or eventually we consume the animal. In turn, we are eating plastic as well. In the ocean, there are also several garbage patches that contain mostly plastic. This pollution creates dead spots in the ocean where it is almost impossible for any living organism to survive in (Kinnon).

Overall, it is necessary to provide alternative ways to reduce the use of the disposable plastic water bottle while still obtaining the same quality of water, but not harming humans or the environment. Today, several companies make reusable water bottles that contain filters that clean the water as it leaves the bottle. REI and Camelback produce several of these forms of water bottles. This method often uses a membrane that doesn't allow bacteria and other harmful contaminants to pass through. In addition, these methods exceed the standards that the Environmental Protection Agency has set for contaminant removal rates. The filters are





also built to be able to last as long as you have the bottle (“Sawyer Water Treatment”).

Another type of bottle is one that uses Ultraviolet light to kill any contaminants that might be present in the water (“All Clear”). This process to clean the water is what most bottled water companies use in their own manufacturing process (“Cruising Chemistry”). Although all of these bottles can sometimes cost a lot, it helps reduce the number of disposable plastic bottles used while giving the same quality of water and convenience of disposable bottles. In addition, the bottles often use plastics that contain no harmful chemicals, such as bisphenol-A (Kinnon).



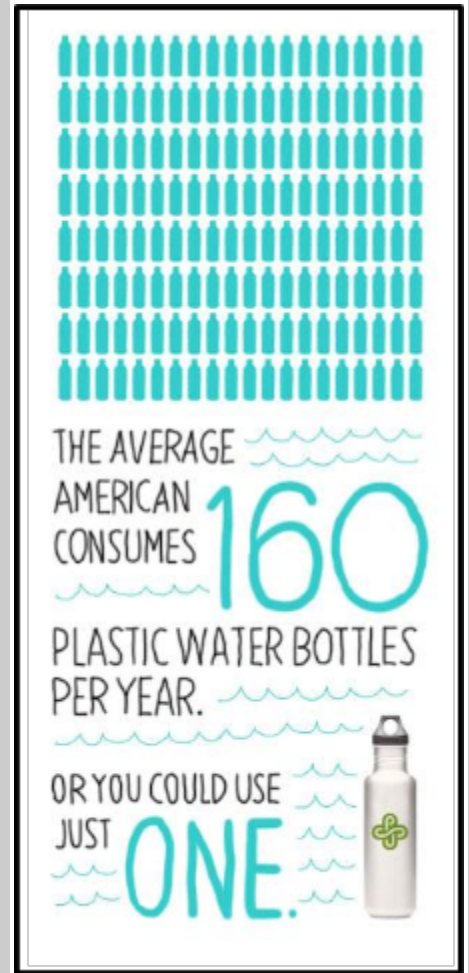
In the home, there also stations that filter the water that several alternatives to obtain comes out.

the same quality of water found in plastic water bottles. Several companies, such as PUR, have started to create water faucet attachments that clean tap water even further by taking out some of the chemicals used to clean the tap water. In addition to faucet attachments, other companies make water pitchers that contain filters to clean tap water. They often use

charcoal filters in these products. Although these kinds of filters don’t catch everything, they still offer the same water quality as bottled water. All of these different kinds of filtration systems are often inexpensive, but require the continual purchase of replacement filters to maintain the quality of the water (“PUR Water”).

It is possible to make compromises in order to reduce the number of disposable plastic bottles. These water bottles could be reused multiple times by refilling them at your home or at water fountains. Although you might not get the same taste, it would help the environment in the long run. In addition, some water fountains have begun to add water bottle

In the long run, finding and using alternatives to disposable plastic water bottles would be beneficial to humans. We could reduce how much we spend on water bottles each year while keeping the same quality of water found in them. By doing this, we will be able to protect ourselves, as well as the environment.



one FILTER



COULD save 300  
WATER BOTTLES

## **Work Cited**

"All Clear™ Bottle." *CamelBak*. N.p., n.d. Web. 9 Apr. 2014. <<http://shop.camelbak.com/all-clear-bottle/d/1208>>.

"Bottled Water Pros and Cons - HealthRF." *HealthRF*. N.p., 6 Mar. 2014. Web. 7 Apr. 2014. <<http://healthresearchfunding.org/bottled-water-pros-cons/>>.

"Cruising Chemistry - How is Water Purified?." *Cruising Chemistry - How is Water Purified?*. N.p., n.d. Web. 7 Apr. 2014. <[http://people.chem.duke.edu/~jds/cruise\\_chem/water/watap.html](http://people.chem.duke.edu/~jds/cruise_chem/water/watap.html)>.

Kinnon, Stephanie. "Plastic Pros and Cons." *Alive Natural Health & Wellness Magazine*. N.p., 1 Mar. 2008. Web. 10 Apr. 2014. <[http://www.alive.com/articles/view/21832/plastic\\_pros\\_and\\_cons](http://www.alive.com/articles/view/21832/plastic_pros_and_cons)>.

"PUR Water Filters." , *Water Filtration Systems & Purifier Filters*. N.p., n.d. Web. 9 Apr. 2014. <<http://www.purwater.com/>>.

"Sawyer Water Treatment Filter Bottle." *REI*. N.p., n.d. Web. 12 Apr. 2014. <<http://www.rei.com/product/822013/sawyer-water-treatment-filter-bottle>>.

Wilson, Stiv. "7 Dangerous Lies About Plastic." *Alternet*. N.p., 26 Feb. 2012. Web. 10 Apr. 2014. <[http://www.alternet.org/story/154279/7\\_dangerous\\_lies\\_about\\_plastic](http://www.alternet.org/story/154279/7_dangerous_lies_about_plastic)>.

How much water do you drink each day? Does that water come from the tap or from a bottle? In today's age, water bottles have begun to gain more and more popularity. The drinking fountain is starting to become obsolete and almost everyone measures how much they drink based on the size of a bottle. There are several benefits that arise from using water bottles, but there are also several problems that arise through their continual use.

The popularity of plastic bottles has grown to some of the benefits that they bring to society. Due to the convenience and availability, plastic water bottles have become very popular to the general public. When you go to the grocery store, you are able to grab a bottle out of a refrigerator and begin to drink it immediately after purchase. In addition, it is easy to grab when you need to leave your home in a hurry in order to make it to an appointment on time. Not only is bottled water more available, but it is often more clean than tap water in specific areas of the world ("Bottled Water Pros and Cons"). Bottled water is free of almost any form of contaminants that are carried by water, such as *E. coli*. In third-world countries that have small amounts of clean drinking water, such as those found in Africa, bottled water serves as an amazing source for clean water for its inhabitants ("Cruising Chemistry").

There are several negative effects that arise from the use of plastic water bottles. The first negative thing about bottled water is the cost. To use a gallon of tap water, it costs approximately \$0.0015. A gallon of bottled water costs about \$10.00, which is 10,000 times the cost of tap water. Another downside to the use of bottled water is the number of tests required by the Environmental Protection Agency, as well as the Food and Drug Administration. While municipal water sources have to test for several contaminants and give the source of the water, water that is bottled is not required to do those things ("Bottled Water Pros and Cons").

Another negative effect of using plastic water bottles comes from the use of plastic itself as a storage device. In order to produce one plastic bottle, it requires three times the amount of water to make it than it does to fill the bottle. In addition, oil is used to create plastic. To make all of the plastic bottles produce in the United States each year, it takes approximately 17 million barrels of water. That is enough to fuel one million cars for a year ("Bottled Water Pros and Cons"). Another concern is if plastic is safe to use for humans. It is believed that as food or liquids are stored in plastic, harmful chemicals are released into those items from the plastic. Some studies have shown how some of these chemicals can lead to cancer or birth defects (Wilson).

Not only is it possible for plastic to be harmful to humans, but it can damage the environment. Since plastic is made from oil, it takes a while to decompose in a landfill. Instead, plastic breaks down into smaller pieces, but is never completely decomposed. Often times, animals will consume these because they mistake it for food. This can either kill the organism or eventually we consume the animal. In turn, we are eating plastic as well. In the ocean, there are also several garbage patches that contain mostly plastic. This pollution creates dead spots in the ocean where it is almost impossible for any living organism to survive in (Kinnon).

Overall, it is necessary to provide alternative ways to reduce the use of the disposable plastic water bottle while still obtaining the same quality of water, but not harming humans or the environment. Today, several companies make reusable water bottles that contain filters that clean the water as it leaves the bottle. REI and Camelback produce several of these forms of water bottles. This method often uses a membrane that doesn't allow bacteria and other harmful contaminants to pass through. In addition, these methods exceed the standards that the Environmental Protection Agency has set for contaminant removal rates. The filters are also built to be able to last as long as you have the bottle ("Sawyer Water Treatment").

Another type of bottle is one that uses Ultraviolet light to kill any contaminants that might be present in the water ("All Clear"). This process to clean the water is what most bottled water companies use in their own manufacturing process ("Cruising Chemistry"). Although all of these bottles can sometimes cost a lot, it helps reduce the number of disposable plastic bottles used while giving the same quality of water and convenience of disposable bottles. In addition, the bottles often use plastics that contain no harmful chemicals, such as bisphenol-A (Kinnon).

In the home, there are also several alternatives to obtain the same quality of water found in plastic water bottles. Several companies, such as PUR, have started to create water faucet attachments that clean tap water even further by taking out some of the chemicals used to clean the tap water. In addition to faucet attachments, other companies make water pitchers that contain filters to clean tap water. They often use charcoal filters in these products. Although these kinds of filters don't catch everything, they still offer the same water quality as bottled water. All of these different kinds of filtration systems are often inexpensive, but require the continual purchase of replacement filters to maintain the quality of the water ("PUR Water").

It is possible to make compromises in order to reduce the number of disposable plastic bottles. These water bottles could be reused multiple times by refilling them at your home or at water fountains. Although you might not get the same taste, it would help the environment in the long run. In addition, some water fountains have begun to add water bottle stations that filter the water that comes out.

In the long run, finding and using alternatives to disposable plastic water bottles would be beneficial to humans. We could reduce how much we spend on water bottles each year while keeping the same quality of water found in them. By doing this, we will be able to protect ourselves, as well as the environment.