

Is your bottled water coming from a faucet?

As bottled water has gone mainstream — and more competitive — things are becoming murky. Phil Lempert has an H2O 101

 NBC NEWS



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It's summer — prime season for thirst-quenching. And more and more, instead of gulping sodas and other sweet beverages, people have been reaching for bottled water.

Not only have consumers changed their habits based on concerns about calories, but in the belief that bottled water has health benefits beyond the alternative coming out of their faucets.

Truth is, there's a good chance that fancy water you've just forked out a buck for comes from just the same place — a municipal water supply.

It's all part of the maturation process for the industry, which after years of relatively high prices — and enormous profits — is beginning to see price cuts as the big players who entered the game in chase of big bucks fight to retain their market share.

You may already have seen the results in your supermarket, with better deals in the bottled-water section these days as the major water brands flex their muscles for a price war that could drive down the price of bottled H₂O.

One of the reasons that the category has gotten really competitive in recent years is that soft drink manufacturers, most notably Coke and Pepsi, have spent a ton of money getting into a business that they hope will rescue their companies from slowing soda sales.

Pepsi's Aquafina is now the best-selling water brand in the U.S., while Coke's Dasani ranks second. European giant Nestle has the biggest share of the bottled water market with a number of brands, such as Perrier, Poland Spring and Deer Park.

Last year, according to ACNielsen, just here in the US, we spent about \$9 billion on bottled water. Up to this point, there haven't been a lot of bargains in the bottled water business, but now Nestle reportedly is considering an eight percent price cut on its bottled water products, whether from France or from Maine. And analysts believe that companies like Coke and Pepsi are likely to follow closely behind.

As this segment gets more and more competitive, it's important to pay attention to just what's in that bottle of H₂O. Here's a quick guide:

Why is water so important?

Most adults lose about 10 cups of water every day through normal body functions including perspiration and breathing. To keep our bodies working properly, we need to replace the water that we lose.

- Adults need around 8-12 cups of water per day depending on activity level. This can come from water itself or from other liquids such as low-fat milk, coffee, tea and fruit juices as well as foods.
- If you are participating in strenuous activities, try replenishing fluid loss with sports drinks. These are frequently marketed as power drinks and can be beneficial especially if you are exercising in hot humid conditions. The simple form of carbohydrate in the drinks, called glucose is a good energy source for muscles. Many also contain essential minerals.
- Whatever you choose, become a good label reader. Serving sizes, calories and the amount of sugar added can vary greatly. Keep in mind that drinks with caffeine and alcohol can act as a diuretic and increase fluid loss.

How can you avoid becoming dehydrated?

Dehydration can happen in any season, not just summer and not just on hot humid days. In the winter, heated air evaporates moisture on your skin, and although you may not feel thirsty, you need to replace fluids. Exercising in cold weather can cause you to perspire and become dehydrated as well. If you are going to be physically active, drink fluids on a schedule before, during and after the activity. Experts suggest:

- 2 cups, 2 hours before you exercise
- 1-2 cups, 15minutes before you exercise
- 1/2 to 1 cup, every 15 minutes during activity
- Weigh yourself before and after a big workout. For every pound you lose after the activity, drink 2 cups of fluid.

Where does that bottled water come from?

It is estimated that about 25 percent of the bottled waters consumed in the U.S. come from municipal water supplies. Most goes through significant processing such as reverse osmosis, deionization, activated carbon filtration and other treatments.

Read the label carefully. If it is packaged as "purified" or "drinking water," chances are it came from a municipal water supply, and unless the water has been "substantially" altered, it must state on the label that the water comes from a municipal source.

Often images on the label show mountains, snow or other bodies of water. For example, the label design on Aquafina (from Pepsi) gives me the feeling of mountains and snow; implying that Aquafina may be from a mountain spring, rather than bottled at Pepsi plants using processed municipal water. Coke's

Dasani, also one of the leading bottled water brands is processed municipal water with added minerals. Many gallon jug waters are also from municipal sources.

And just what is “natural” water?

The word "natural" is only allowed for bottled water, which is derived from springs or wells where the natural chemical (mineral and trace elements) composition of the water has not been altered as a result of treatment process.

What exactly is “natural carbonation”?

It all started when shoppers assumed that the water in their bottle of Perrier came out of the ground bubbling. And for good reason — their television ads illustrated it that way. The truth, though, is a little more complicated. The carbonation comes from a naturally occurring source in the same spring system. Originally, according to the company, “these natural gases met and mingled together with the spring underground, rising at a constant pressure and temperature (60 degrees Fahrenheit). A desire for consistency ... led French scientists to devise a more efficient means to capture the water's perfect balance of minerals and carbonation in the bottling process. Both the water and natural carbonic gas are now captured independently. They come from isolated points at different depths, within the same geologic formation. Before they come together for bottling, a filter is used to remove any natural impurities in the gas. Once combined in the bottling process, the level of carbonation found in a Perrier bottle is exactly as it is at the spring.”

So now we know.

Types of waters

Bottled water is regulated as a food product by the U.S. Food and Drug Administration (FDA). Bottled water companies must adhere to the FDA's Quality Standards, Standards of Identity (Labeling Regulations) and Good Manufacturing Practices and requires beverage companies to label their waters to define where the water came from and if it's been purified or carbonated. Bottled water can be classified with terms such as “purified,” “spring,” “sterile” and “artesian” (or “artesian well” water). All bottled water sold in the United States (whether imported or domestic) must meet all of the same regulations. Here are the classifications:

Artesian water/artesian well water

Bottled water from a well that taps a confined aquifer (a water-bearing underground layer of rock or sand) in which the water level stands at some height above the top of the aquifer.

Drinking water

Drinking water is another name for bottled water. Accordingly, drinking water is water that is sold for human consumption in sanitary containers and contains no added sweeteners or chemical additives (other than flavors, extracts or essences). It must be calorie-free and sugar-free. Flavors, extracts or essences (such as lemon-lime) may be added to drinking water, but they must comprise less than one-percent-by-weight of the final product or the product will be considered a soft drink. Drinking water may be sodium-free or contain very low amounts of sodium.

Purified water

Water that has been produced by distillation, deionization, reverse osmosis or other suitable processes and that meets the definition of purified water in the United States Pharmacopoeia (pharmacological code) may be labeled as purified bottled water. Other suitable product names for bottled water treated by one of the above processes may include "distilled water" if it is produced by distillation, "deionized water" if the water is produced by deionization, or "reverse osmosis water" if the process used is reverse osmosis. Alternatively "_____ drinking water" can be used with the blank being filled in with one of the terms defined in this paragraph (e.g. "purified drinking water" or "distilled drinking water"). These waters are taken primarily from metropolitan water sources, run through mammoth commercial filters, and purified of chlorines, detritus, and other items inappropriate for drinking water. You may have seen vending machines outside of your supermarket that allows you to fill your own bottle for 25 or 50 cents; this is the water and process that is used and is from metropolitan sources or even the tap water adjacent to the machine's location. They are excellent to cook with when tap water quality is an issue.

Mineral water

Waters containing not less than 250 parts per million total dissolved solids may be labeled as mineral water. Mineral water is distinguished from other types of bottled water by its constant level and relative proportions of mineral and trace elements at the point of emergence from the source. No minerals can be added.

The naturally occurring minerals and trace elements in mineral waters are considered by many to be excellent for health and digestion. Typically, these include iron, potassium, magnesium, manganese, silica, chromium, lithium, and copper. While these are healthful, the value of mineral waters versus spring waters is still debated. Available from both domestic and international sources, the prices vary tremendously based on packaging and location.

Spring water

These are waters derived from an underground formation from which water flows naturally to the surface of the earth. Spring water must be collected only at the spring or through a bore hole tapping the underground formation finding the spring. Spring water collected with the use of an external force (in other words, a pump) must be from the same underground stratum as the spring and must have all the physical properties, before treatment, and be of the same composition and quality as the water that flows naturally to the surface of the earth. Available from both domestic and international sources, spring waters are ideal for everyday drinking as well as to make coffee, tea, or foods in which the quality of the water is a critical ingredient. Prices vary considerably based both on geographic location and packaging.

Sparkling water

Water, which after treatment and possible replacement with carbon dioxide, contains the same amount of carbon dioxide that it had at emergence from the source. (An important note: soda water, seltzer

water and tonic water are not considered bottled waters. They are regulated separately, may contain sugar and calories, and by law, are considered soft drinks.)

Carbonated water

The bubbles in these waters can help ease digestion, and are available from both domestic and international sources. Some have slight flavorings added such as citrus, but taste even better plain or with a slice of fresh lime or lemon. If burping is an issue, avoid them, but otherwise, they are excellent to drink after meals as a digestif. Some are heavy in sodium, so those with hypertension or sodium restrictions should drink them only occasionally.

Flavored waters

These may be compared to soda pop, but infinitely lighter in flavor and absolutely lighter in sugars and sweeteners. They give just a hint of flavors like citrus or berries, have either no or modest amounts of sweeteners from high fructose corn syrup to sugars or honey. They are likely not to be completely calorie-free, but are modest in carbohydrates and calories when consumed sparingly.

Waters with healthful additives

These waters contain everything from additional minerals, vitamins, and other ingredients that make these more a health drink than "just water." If this is the only way to get your spouse to drink water, great; otherwise, it's a very expensive way to get your H₂O; and in some cases the packaging and the labeling can be misleading. Remember that most Americans do not have vitamin deficiencies and buying waters to add vitamins to your diet might be little more than a waste of money.

Distilled water

These waters are mineral-free, so they're perfect for curling irons, clothes irons and steamers, humidifiers, and any appliance that requires water. By using distilled waters, you can avoid the mineral muck that often clogs up appliances. Some people view distilled waters as good to drink because it is so pure, but naturally occurring minerals in waters are actually good for you.

Tap water

Many municipal water supplies, such as New York City, boast water that is as tasty and pure as the most expensive bottled varieties. By law, municipal water supplies must supply its customers a chemical analysis of their water composition. If you haven't received yours, contact your local water supply. (Many now post their analysis on their Web sites.)

Water filters

Consumers can filter their municipal water by attaching a commercial filter to the tap, using a pitcher with a carbon filter in it, or buying refrigerators with built-in filters that make both filtered ice and filtered water. These are very good, but be sure to change the filters as recommended.

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