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Why You Want to Avoid Hot Drinks When Flying

Analysis by Dr. Joseph Mercola | April 22, 2024

STORY AT-A-GLANCE

- Clean, pure water is one of the most important foundations for optimal health, but is becoming more difficult to come by with environmental policy changes, agricultural runoff and water treatment plant failures reducing water quality
- The EPA is attempting to regulate tap water supply on airlines to reduce your risk of coliform bacteria contamination; this pollutant may indicate fecal contamination of the water supply
- Consider bringing bottled water with you when you fly, purchased after the security checkpoint, as the airlines will sometimes run short of bottled water and it may not be advisable to drink the tap water

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Clean, pure water — in sufficient amounts — is one of the most important foundations for optimal health, but is becoming far more difficult to come by with each passing year.

Environmental policy changes ensure ground water will suffer greater contamination with chemical pollution;[1] water treatment plants don't have the resources to remove drugs and other small particles from the water before dumping into rivers and oceans;[2] and in some cases, sewage is dumped directly into the environment.[3,4]

Most tap water is far from pure, containing a vast array of disinfection byproducts, fluoride, radiation, heavy metals, agricultural runoff, pharmaceutical drugs and perfluorooctanoic acid (PFOA), a chemical used in the production of Teflon and flame

retardants.[5] And that's the short list. What's worse, more than half of the 300-plus chemicals detected in U.S. drinking water are not even regulated.[6]

Every year new stories are released about toxic drinking water across the U.S. The World Health Organization estimates nearly 25% of all global deaths result from an unhealthy environment.[7] The 1972 Clean Water Act[8] regulates discharges of pollutants into U.S. waterways and sets quality standards for surface waters.

It was supposed to ensure clean water for swimming and fishing, yet after more than four decades of clean water regulation, our waterways are in serious jeopardy. It should come as no surprise, then, that you may want to carefully consider avoiding any drink that comes from the tap while flying.

Tea and Coffee in Flight Come With Extras

Early morning flights and traveling from west to east, when jet lag is tougher on your body,[9] makes it more difficult to stay awake and function when you land. Sometimes all you want is a nice warm cup of coffee or tea to wake you up and help you feel refreshed.

The featured video shows you why, before you ask the flight attendant to serve that coffee, you may want to wait until you land and are safely off the plane. According to a flight attendant, there is a self-imposed ban on warm beverages by flight crew. One attendant stated:[10] "Flight attendants will not drink hot water on the plane. They will not drink plain coffee, and they will not drink plain tea."

Unfortunately, even cold drinks may be a problem as the attendants use tap water when the bottled water runs out. The same attendant confirmed that while the water tanks are cleaned, it isn't very often.[11] The tap water on your plane is first delivered to the airport via a water tanker truck where it is stored in a facility.

Another truck is then filled from the storage tank and delivers the water to the plane. Tap water on your flight may be contaminated at any point during transport from the original source to your plane.

This water has tested positive for coliform bacterial contamination, bacteria that indicate human fecal waste is present. Coliform bacteria are considered "indicator" bacteria, as they come from the same sources as pathogenic organisms like E. coli.[12]

Water supplies are tested for indicator bacteria since the concentrations of pathogens from fecal contamination may be small and the number of possible pathogens is large, making testing for each pathogen impractical. Testing for coliform bacteria is therefore more practical.

Airlines Disinfect Water Tanks Every Three Months

Over 15 years ago the Association of Flight Attendants-CWA[13] (AFA) pushed for regulation of tap water on air flights. After an Environmental Protection Agency (EPA) study found 1 of every 8 planes in 158 tested had contaminated water,[14] the airline industry agreed to a two-year plan during which they would test the water from each plane every year and disinfect the plane's water tanks every three months.

However, the tanks agreed to be disinfected in this accord were the plane's tanks and not the storage or transportation tanks. Bacteria may infect the water on the plane from the storage tanks or from hoses that are routinely found in filthy condition.[15]

Twelve airlines agreed to the initial solution in 2004 proposed by the EPA. Within a year the EPA went on to develop drinking water agreements with 24 domestic airlines.[16] After a round of testing, the results showed Southwest had the best test results with less than 3% of its planes testing positive for coliform and none for E. coli.[17]

The testing in 2004 by the EPA eventually led to the Aircraft Drinking Water Rule[18] in 2009, after more testing continued to identify **coliform contamination** in aircraft tap water.[19] Further study results, requested in 2012 by an investigation by NBC5 through a Freedom of Information Act Request, showed 12% of tests on commercial flights had at least one plane that tested positive for coliform bacteria.

Bill Honker, director of the water division, EPA Region 6 in Dallas, calls this a "high percentage" of planes and believes the industry could do a better job of protecting their

customers.[20]

Think Twice About Your Water Sources

The bacteria found in the planes' water tanks may not all be killed at the temperatures used to brew tea and coffee on the plane, and in some instances the maximum brewing temperature is not reached.[21] Southwest Airlines routinely uses ozone to disinfect their tanks and the faucets in the galley and lavatories, contributing to their low bacterial rates on testing.

However disgusting it is that water from the plane's tank may have coliform bacteria, the water originates from a source awash with fluoride, chloride and other pollutants. Drinking bottled water from plastic bottles has its own set of concerns, as it may contain **bisphenol-a** (BPA), an endocrine disrupting chemical linked to altered immune function, obesity, reduced sperm production and hyperactivity.[22]

When water bottles are not stored in climate controlled environments, leakage of **BPA** into the water increases. If the plastic bottles are BPA-free, the chemical has likely been replaced with another form of bisphenol with a similar chemical structure and function.

However, it is also important to be drinking while you fly. The air in the plane has little humidity. According to Aviation International News, a dripping wet terry cloth hand towel will be bone dry after 1.5 hours of flight,[23] as the water is absorbed into the air quickly. The same happens to you as water evaporates more quickly from your skin and lungs in the low humidity, dehydrating you more quickly.

Although plastic bottles of water have their health concerns, it's a far safer choice than drinking tap water from the plane, and you do need to rehydrate while flying. If you are traveling for longer periods and are concerned the airline will run out of bottled water, you may carry on as many bottles as you like, as long as they are purchased after the security checkpoint.[24]

Not Just US Planes

Similar problems have been reported onboard Cathay Pacific Airways when Hong Kong's Port Authority Office collected samples from 22 planes as part of a routine inspection and found 10% had tainted drinking water.[25] Following the inspection, the airline issued a warning to passengers to avoid brushing their teeth in the lavatories and issued all passengers bottled water.

This airline also cleans and disinfects its tanks every three months and tests every six months. Brenda Wiles manages a lab in Fort Worth, Texas, that is certified to test the drinking water from aircraft. She commented:[26]

> *"There's poop in the water if there's E. coli in the water, and that's not a good thing. [Heating] might kill some of the organisms, the more susceptible ones, but it's not going to kill the majority of them."*

Filtration Is a Must for Clean, Pure Water

According to a statement from the AFA, which first made the push to have water safety onboard planes regulated:[27] "The regulation gives broad discretion to airlines on how often they must test the water and flush the tanks. AFA does not believe this regulation goes far enough or is sufficiently enforced."

It appears from this statement that the AFA is not satisfied with the regulations currently in place, or the attempts by the airlines to ensure the health and safety of the passengers and crew from water contamination. As with water from your tap at home, you may consider precautions that will help you avoid contamination from bacteria, toxic chemicals, drugs, fluoride and chlorine.

To be certain you are using the purest water at home, consider filtering at both the point of entry to the house and the point of use. Unfiltered water may expose you to dangerous chlorine vapors and chloroform gas.

A whole house filter helps eliminate the potential for vaporized chlorine from your toilets, washing machine and showers. Chloroform gas, chlorine vapors and the

associated detergent byproducts may increase your risk of asthma, airway inflammation and respiratory allergies.

If you don't have a whole house filter, open your windows on opposing sides of your home to achieve cross ventilation for between five and 10 minutes each day to remove the gasses, no matter the temperature outside.

Although purification is important, I also believe it's important to drink living water. During my **interview with Dr. Gerald Pollack**, author of "The Fourth Phase of Water: Beyond Solid, Liquid, and Vapor," we discussed "structured water," which is the type of water found in your cells.

This type of water is energized to recharge your mitochondria. You can find structured water from a deep spring, and the deeper and more pressurized the better. You can find a spring in your area using the website FindaSpring.com.[28] Just be sure to evaluate the site you choose based on any surrounding industrial or agricultural facilities that may pollute the water.

Two options you may try at home are vortexing or cooling the water to 39 degrees F. By creating a vortex in a glass of water by stirring it with a spoon, you're putting more energy into it, thereby increasing the structure of the water. According to Pollack, virtually any energy put into the water seems to create or build structured water.

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