

Plain ol' water is out, hydration supplements are in: But do they really work?

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You see them crowding checkout counters at grocery stores—a rainbow of bubble-gum pink, lime green and blueberry packets, slender and upright, like a multicolored chorus line of dancers tempting an impulse

purchase. At the gym, they're dissolved into enormous jugs of cherry-tinted water.

"If your water isn't turning your mouth blue, you're apparently hydrating wrong," one skeptical dietitian observed on TikTok last year.

Hydration supplements in the form of powders, tablets and liquid additives have become a norm among consumers over the last decade, and are more popular than ever. The global electrolyte hydration drinks market was valued at \$1.72 billion in 2023, according to Data Bridge Market Research. And it's growing. The business of boosting one's H₂O is projected to reach \$3.26 billion by 2031.

Why hydration is important

This bonanza of new hydration products plays into a basic but critical need: More than 50% of people around the globe, including in the U.S., are chronically underhydrated, according to the National Institutes of Health, which cites worldwide surveys. ("Underhydration" refers to people who don't meet the recommended daily fluid intake, whereas "dehydration" refers to a more severe fluid deficit.)

Those statistics are concerning, considering hydration is the oil to our body's engine. It aids in muscle repair, digestion, energy and focus. It's necessary for lubricating joints, regulating body temperature and removing toxins from the body. It carries nutrients to cells and is crucial for hormonal balance, which can affect blood pressure and the menstrual cycle. Our level of hydration also contributes to our hair and skin health.

"Proper hydration keeps every system of the body running smoothly," says dietitian-nutritionist Vanessa King, a spokesperson for the Academy of Nutrition and Dietetics.

After years of striving to adhere to a 1945 U.S. Food and Nutrition Board recommendation of eight glasses of water a day, it tracks that we'd want to zhuzh up the ritual. (Some studies, however, suggest we need less water daily and that water requirements vary for individuals.) But is there any actual health value to these water additives? Do they aid with hangovers, enhance our workouts or energize us? Or are they simply there to make plain old water taste like a piña colada?

It depends on what product you're peppering into your Hydro Flask.

"Hydration supplements can replenish you when your fluid status is down—so after workouts, for hangovers or when you've been sick," says Dr. Vijaya Surampudi, an endocrinologist, nutrition specialist and professor at UCLA. "Depending on their composition, some get better absorbed and improve your hydration. Some are just for flavoring and they can have a lot of sugar or artificial coloring—it can be like drinking a soda."

She notes that because these powders and tablets are categorized as supplements, they aren't regulated by the U.S. Food and Drug Administration. "So you just have to trust what's on the label." (To fill this gap in regulation, some sleuthing social media users have even carved out a niche content genre in which they analyze the ingredients listed on the labels of celebrity-backed supplements.)

What's in hydration supplements?

More often than not, a hydration powder or tablet includes a mix of four main ingredients: electrolytes (such as sodium, potassium, magnesium and chloride), a carbohydrate (such as glucose), vitamins (typically B vitamins, sometimes C) and amino acids. Depending on their quantity, and how they interact with one another, those ingredients may help hydrate your body more efficiently.

How these ingredients chemically interact with one another directly affects hydration. Water follows sodium for absorption, for example, and sodium molecules travel best with glucose molecules across the lining of the gastrointestinal tract, Surampudi says, so carbohydrates like sugar are not a bad thing in your supplements—they're actually preferred.

Even so, it's a delicate balance. A [supplement](#) with too much sugar may work against your aim to be healthier.

"The body stores excess sugar for energy later, and that's stored as fat," Surampudi says. "And if you drink too much [sugary fluids], that can lead to health complications."

While sugar and sodium help fuel hydration, those with diabetes or [high blood pressure](#) should be careful with hydration supplements, paying attention to their sugar or salt intake.

"Use it with caution and discuss with your health care provider," Surampudi says.

Do we need them?

Hydration supplements aren't unsafe for most people to take daily if the sugar content is moderate—but they're often not necessary, says Dr. Christopher Duggan, editor of the *American Journal of Clinical Nutrition* and a Harvard Medical School professor.

Most adults and children don't meet daily hydration recommendations, he says, which is currently 13 eight-ounce cups of fluid for healthy men and nine for healthy women, according to the National Academy of Medicine. (Note this recommendation includes all fluids, not just water. And we tend to get 20% of our water intake from food.)

"So if adding a light flavoring gets them to drink more water, that's probably not a terrible thing," Duggan said. "But if the expense is high, it's ultimately not worthwhile. Because unless you're participating in vigorous exercise or your GI tract doesn't work normally, [water](#) alone is probably an adequate hydration."

Some hydration supplements even contain ingredients that are not hydrating when consumed in large quantities, such as caffeine. Though caffeine is a diuretic, consuming up to 400 mg of it daily can actually help with hydration, according to the Academy of Nutrition and Dietetics' King. Other flavored powders contain various B vitamins, which may cause problems in excess.

"B6, if you consume too much of it because you're getting it elsewhere, there's a risk for some people of neuropathy, which means damage to the [peripheral nerves](#) (which are outside of the brain and [spinal cord](#)), and which can cause numbness and tingling, among other things," Surampudi said.

Surampudi recommends consuming [hydration](#) supplements only in moments when your body is especially challenged.

"If there's a situation where you're fluid down, or in a [high altitude](#) or in an extremely hot climate, that's where these things can be helpful," she said

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