

What Is Hydrogen Water, and Does It Actually Work?

There's a trendy new wellness water in town.



What is hydrogen water, you ask? Nicholas Perricone, M.D., will tell you—count the board-certified dermatologist and nutritionist among the trendy water's newest fans. Dr. Perricone made a name for himself in wellness with the Perricone diet, a meal plan that followers say helps reduce bodily inflammation and create glowing skin, and is now urging people to rethink the type of water they drink.

According to Dr. Perricone, hydrogen water is the next big thing in wellness (although it's important to note that it's been a big trend in Japan for many years, where it's known as "Shin'nooru solution"). Hydrogen water is simply water that, through several means, has extra hydrogen gas added to it. It supposedly works like this: When you ingest the hydrogen gas, it acts as an anti-inflammatory and a portion of the hydrogen molecule has antioxidant activity. It helps turn your cells into "an antioxidant factory," Dr. Perricone explains.

Proponents of hydrogen water, like Dr. Perricone, claim that drinking hydrogen water can give you more energy, slow the aging process (including its effects on your skin), and even speed muscle recovery after a workout. "You'll find that after you work out you're nowhere near as tired" when you drink hydrogen water beforehand, Dr. Perricone says. "You could probably do another workout afterwards." He urges people to "throw away their current energy drinks" and opt for hydrogen water instead.

Dr. Perricone is such a fan of hydrogen water, he thinks it could make a huge impact on our health. "Looking at the epidemiology, if we have the nation on hydrogen water, the savings to the health-care system could be enormous," he told *W* in a recent interview.

These are some pretty big claims, but the research to back them up isn't exactly there.

While Dr. Perricone talks up the science behind the drink, research on hydrogen water is small and limited. One randomized, double-blind, placebo-controlled trial published in the journal *Research in Sports Medicine* in 2014, for example, found that those who drank two liters of hydrogen water for 14 days had "significantly increased" fasting arterial blood pH, i.e. more hydrogen ions in their blood than those who drank two liters of tap water. As a result, they concluded that hydrogen water "may have an alkalizing effect." (When a person's body is in a more alkaline state, it's thought to give you more energy, help you think better, and slow down the aging process.) But the study size and sample population were small, tracking only 52 physically active men.

Another small double-blind study published in the journal *Medical Gas Research* in 2012 followed 10 male soccer players who were given either hydrogen water or regular water for one-week intervals. Researchers then subjected them to blood tests and discovered that, when the men drank hydrogen water, their muscles were less fatigued afterward. "These preliminary results may suggest that [hydrogen water] may be suitable hydration for athletes," researchers said in the study.

There are a slew of studies like this. While they all suggest that there might be some benefit to drinking hydrogen water, no scientific conclusions can be made given the very small size of each.

Because the studies on hydrogen water are so limited, experts are skeptical about its actual benefit.

"I can't think of any reason why a hydrogen-enriched water would impact energy, mental clarity, or any other health state," Kathleen Fairfield, M.D., Dr.P.H., a physician-scientist at Maine Medical Center with a background in nutritional epidemiology, tells SELF. Ruth Kava, Ph.D., senior nutrition fellow at the American Council on Science and Health, agrees, telling SELF that the concept of hydrogen water is "total hooley." "The idea that by

doing something like bubbling more hydrogen through water or getting the oxygen and hydrogen to dissociate more quickly than usual is going to do anything to cure any disease or ailment is just not there,” she says.

Sarah L. Ash, Ph.D., a professor of nutrition at North Carolina State University, tells SELF that there is some data about the potential benefits of hydrogen water, “but to date most of it comes from non-randomized, open-label, or single-blind trials on limited numbers of people for short periods of time and for therapeutic, not general health, effects.” Ash says that the research that exists is “interesting enough” to warrant further investigation under more controlled and rigorous experimental conditions. “However, there’s currently no evidence that commercially available products, such as the one sold by Dr. Perricone, gives otherwise healthy people more energy or the ability to leap tall buildings in a single bound,” she says.

Natalie Stephens, a registered dietitian at The Ohio State University Wexner Medical Center, agrees. “It’s something researchers should look at,” she says, adding, “I’m certainly not going to tell patients to find this product and consume it.” Stephens points out that one study on hydrogen water had participants drink a liter a day, which just isn’t practical for the average person: “I have a hard time getting patients to drink water at all, let alone a special substance that will cost more and could potentially break down quickly.”

As for the skin claims, **Gary Goldenberg, M.D.**, medical director of the Dermatology Faculty Practice at the Icahn School of Medicine at Mount Sinai, tells SELF that they're "weak at best." "Hydrogen is an antioxidant but drinking water enriched with hydrogen doesn't guarantee that it will be absorbed by your skin and help improve hydration, skin function, or antioxidant function," he says.

Bottom line: Drinking water has proven health benefits, but you don't need to invest in expensive H₂O.

Dr. Perricone's enthusiasm for hydrogen water coincides with his own new hydrogen water product that will be available in May. Dr. Perricone Hydrogen Water comes in an 8.3-ounce can and costs \$12 for a four-pack that can be purchased on his website. You can also buy hydrogen water sticks—a magnesium stick that you put in water to produce hydrogen, and HFactor Hydrogen Water, which costs \$18 for a six-pack, can be found online.

Of course, there's no need to spend that much money to reap the benefits of water. Instead, Stephens recommends sticking to basics. “Drink more water regularly, and eat your fruit and veggies,” she says. “That’s a lot of antioxidant power and it’s much cheaper.”