



## Week 4 Participant Manual: **Hydration**



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# Water Fever and the Fear of Chronic Dehydration

## Do we really need eight glasses of water per day

by Paul Ingraham, [Registered Massage Therapist \(Vancouver\)](#)

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"They" say that you and I should drink eight glasses of water a day for optimum health. The origins of this wisdom are shrouded in mystery. It is known as the "eight by eight" rule among nutritionists: eight glasses of water, eight fluid ounces each, is supposedly what the average person needs to drink every day to remain healthy and hydrated. The claim is often made, but no one really knows where it comes from or what the basis for it is.

Moreover, hardly anyone actually drinks that much water, as far as I can tell from asking my clients, and yet just about everyone feels slightly guilty about it and many believe that they are probably "chronically dehydrated" with unknown but ominous consequences! Could this be? After reading everything I can find on the subject, at least one interesting fact stands out clearly:

I am unable to find *any* scientific research which either supports or contradicts the claim. If anyone has ever carefully compared the health of people who drink water to people who don't, I can't find their report, and neither can anyone else. It is a debate without science.



But this debate may not need science.

## Dr. Batmanghelidj's popular quackery

People who support the 8×8 claim tend to be evangelical about it, and they are often selling water. Advertisements for bottled water commonly cite the work of F. Batmanghelidj, MD, who claims that most people are suffering from conditions like asthma, arthritis and chronic fatigue syndrome — and much worse — due to chronic dehydration.<sup>1</sup> In 1995, he published a book called *Your Body's Many Cries for Water*, and another this year (*Water: For Health, For Healing, For Life*) and his ideas now dominate the discussion to a surprising degree. In fact, you can't really read much about the subject without stumbling across his claims in one form or another.

Dr. Batmanghelidj's first book doesn't present a shred of scientific evidence and is extremely poorly written — to my amusement, I even found a website for professional editors that used an excerpt from the book as an example of "a particularly miserable paragraph!"<sup>2</sup>

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His original website, no longer available, was no better. It was a marvel of marketing, making outrageous claims and clearly designed to sell his "miracle cure" program. A link to "Scientific Information on Dehydration" lead to testimonials for his incredibly expensive "miracle water cure," and a link to a "Medical Report" took browsers to a 9000-word sales letter — a classic marketing format known as "long copy," more aesthetically repulsive than telemarketing, but proven to be effective. It was littered with hype, conspiracy theories, and empty promises. Most extravagantly, Batmanghelidj claimed that dehydration is primarily responsible for an incredible and utterly improbable list of health problems. If it were true, I would certainly live in fear of being dehydrated!



In a recent revision of his website, still built to sell products, Dr. Batmanghelidj actually cites scientific evidence, and tones down the conspiracy theories and more excessive claims quite a bit. It no longer reads like a revival tent sermon. The expensive water cure program has been replaced by mere books, and seminars on CD. But the long copy advertising format remains, and the dramatic claims of curing and preventing many serious pathologies remain. Having seen the original, I am not at all sure this is an improvement: it is just the same old quackery dressed up nicely for the new millennium and a public that is more critical, but still not critical enough.

Many people encounter Dr. Batmanghelidj's ideas in the form of a piece of widely circulated internet junk mail that begins with the somewhat hysterical announcement, "75% of Americans are chronically dehydrated!" According to whom? The statistics presented are a summary of the key points of Dr. Batmanghelidj's book, and are entirely imaginary (if there is a credible source for the statistics, I'd love to hear about it). Snopes.com, a website devoted to debunking netlore and urban legends, dismisses this one as having no basis in fact.[3](#)

Due to the prevalence of his opinions, I believe that Dr. Batmanghelidj has set the alarmist and urgent tone for the 8x8 rule over the last few years. Due in large part to his preaching, people not only believe that they need eight glasses of water per day, they believe that something bad will happen to them if they don't!

## **The other side of the story**

Nutrition and medical experts invariably contradict the evangelical form of the 8x8 claim. They dispassionately dismiss the idea that a small difference in our water intake has great importance, and offer clear scientific rationales for their skepticism — but still no evidence, unfortunately. The best of all the popular skeptical articles I found on the subject — "Hard to Swallow,"[4](#) by Benedict Carey of the *Los Angeles Times* — has been widely reprinted. Unfortunately, it relies only on expert opinion, not on evidence, which does not exist.



In 2002, Dr. Heinz Valtin published a more professional review of the subject in the American Journal of Physiology<sup>5</sup>, but he also relied more on “extensive consultation with several nutritionists who specialize in the field of thirst and drinking fluids” than he did on evidence, since no direct evidence exists. He acknowledges this in his abstract: “Since it is difficult or impossible to prove a negative — in this instance, the absence of scientific literature supporting the 8×8 recommendation — the author invites communications from readers who are aware of pertinent publications.”

Perhaps you trust in Oprah more than any stodgy ol' doctor. If so, her magazine put its weight behind the “just say no to water” campaign in an article wittily titled “You Need 8 Glasses of Water a Day ... and other rules to blow off”<sup>6</sup>. Once again, however, no actual evidence was presented: just the weight of expert opinion, including Dr. Valtin's article, and the opinion of the nonprofit Institute of Medicine: “The vast majority of healthy people adequately meet their daily hydration needs by letting thirst be their guide.”<sup>7</sup> This is quite authoritative, and indicates that there is probably no significant nutritional hazard associated with people neglecting to drink more than they really want to drink. Meanwhile, there clearly is a hazard in drinking too much, which some people — excessively inspired by Dr. Batmanghelidj, perhaps — actually is dangerous, even lethal, as was recently seen in the tragic case of a California woman who hydrated herself to death.<sup>8</sup>

But ... is there anything really *wrong* with the basic 8×8 rule? Perhaps it's excessive to get stressed about it, but is it actually unsound? What if it was recommended more matter-of-factly — without the hysterical and profit-motivated fear mongering of Dr. Batmanghelidj, say?

## Let's do the math

Although the Institute of Medicine's report confidently declares that people can let their thirst be their guide ... yet the report did set general recommendations for water intake at 91 ounces and 125 ounces daily, for women and men respectively, which is significantly more than you'd get if you followed the 8×8, which only comes to 64 ounces.



Perhaps we get the extra from our food? Not likely. Although the report claims that we get about 20% of our water from food, it's not enough to make up the difference, and it's "a misleading generalization anyway," according to Naturopathic Physician, Nicole Shortt. "The only people who are getting that much liquid out of their food are the ones who are actually eating an ideal diet, rich in fruits and vegetables. Obviously, most people don't eat that way, and probably need more actual liquid to make up the difference. Or they could eat more fruits and vegetables!"<sup>2</sup>

*The only people who are getting that much liquid out of their food are the ones who are actually eating an ideal diet, rich in fruits and vegetables.*

So, adjusting the water-from-food figure to 10%, that implies that about 82/112 ounces of our daily requirement should come from drinking ... still *significantly more* than the 64 ounces recommended by the traditional 8×8 rule. And for men, 64 ounces is almost *half* — a whopping 48 ounces short — of what the Institute Of Medicine says we need. That's another 6 glasses of water at least, just to make the minimum!

82 ounces = 10+ 8oz. glasses of water

112 ounces = 14+ 8oz. glasses of water

By these numbers, there is nothing nutritionally incorrect about the traditional 8×8 recommendation — indeed, it actually falls far short of what we are officially supposed to be drinking!

So what's the problem? Why "blow off" the 8×8 rule, as Oprah's magazine advises us? Why "let thirst be your guide," as the Institute of Medicine recommends? Indeed, why not actually *upgrade* the 8×8 rule to 10×8 for women and 14×8 for men?!

Ask yourself ...



## Does thirst really drive you to drink ... enough?

I felt thirsty just now, so I measured out eight ounces, and slammed it back in five biggish swallows: ah, refreshing!

Eight ounces of water — one cup, 250 millilitres — is a respectable amount of fluid, more than I want to drink in one go unless I am actually feeling thirsty. It's an average glass of water, not large ... but not small, either. I've got to *want* it, and I imagine I am not alone in this regard.

Is your thirst actually driving you to drink at least 10 glasses like that per day, if you're a woman? More than 14, if you're a man?

Mine certainly isn't! We're talking significantly more than the contents of a 2-litre carton of milk here (and just shy of two of those for men). That's quite a lot! I might drink that much on an athletic day in the sun, but on a typical day of massage therapy and sitting here writing articles like this? I'm sure I don't.

I have a sneaking suspicion (no evidence, I'm afraid) that thirst does *not* get people to drink the recommended amount. Dr. Nicole Shortt affirms this: "Perception of hunger and thirst is strongly influenced by personality and emotional factors. Only unusually healthy, self-aware people have accurate appetites and thirst sensations. Most people are eating and drinking more or less than they really need."

## So you're little dehydrated ... so what?





Obviously, we really do need water, and ideally most of us should probably have the full amount recommended by the Institute of Medicine. However, the consequences of mild dehydration are probably not serious, even if the condition is chronic.

Dr. Shortt explains that she has never seen a case of that could be solved just by adding water:

A lot of people probably do need to drink more water for optimum health, but it's nothing to get anxious about. At best, some extra water might help with constipation or with headaches, it might take the edge off the symptoms of some other condition or help your immunity a bit. I've never seen a problem, certainly nothing serious, that could be solved by saying, 'Oh, you just need more water.'

At the same time, she cautions against giving cheap, comforting advice:

People ask me to endorse their pet rules all the time. They want me to tell them they can have a glass of wine every day. I tell them if they want to prevent heart disease, there are much better ways. And if someone wants me to put my stamp of approval on blowing off the 8×8 water rule, I say, 'No way. You need the water.' But it's not a big deal. Worst-case scenario you're going to be slightly less healthy than you could be.

Hydration may be a factor in people's health problems, but it's never the whole story, and every case is different. I wouldn't ever attempt to generalize and say that most people are suffering from dehydration. It's just not that simple. Some people definitely are dehydrated, but I doubt that many of them are suffering all that much from it. And I've seen people who were drinking too much, people who were 'saturated' from the perspective of traditional Chinese medicine. Others are carefully drinking about the right amount, but they pee like crazy because they aren't assimilating it due to some other problem. What's the issue there? Water consumption or assimilation? I wouldn't tell them to drink more, that's for sure! They'll just pee it out!



Maybe we don't need eight glasses of water a day, but we do need to exercise everyday, and what better way to exercise than with a [personal trainer](#) at your favorite [health club](#)! While it is important to know the [pros and cons of health clubs](#) before signing up a [health club membership](#), once you've done your [research on health clubs](#) you're ready to exercise your way to a healthier you!

## Conclusions

The debate about the 8×8 rule would be dead in the water if it weren't for the fanaticism of Dr. Batmanghelidj. The main this article needs to exist is to contradict his absurdly pervasive and unjustified idea that "chronic dehydration" is some kind of epidemic. It is probably not. There may be such a thing as "chronic dehydration", but the weight of expert opinion is clear: if it exists at all, it is not serious, and easily cured in any event.

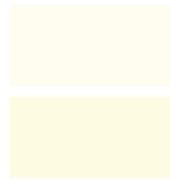
There is no research about this question because there is no need for it. The only thing at stake is a clear but minor general benefit to your health. In short, there are more important things to worry about, and more important medical questions to study. Drink your 8 glasses per day (or 10, or 14), and ignore anyone who tries to get you to worried about it ... or who tells you it doesn't matter. It does matter. It just doesn't matter *much*!



## Am I De-hydrated?

This urine color chart below is a guide to help you assess if you are in taking enough fluids throughout your day. And remember foods and other liquids besides water aid in hydration. So don't feel like you have to guzzle gallons of water or force yourself to drink all day long to stay hydrated.

**Did you know that lack of water is the number one trigger of daytime fatigue?**



You're wonderfully hydrated!



You're dehydrated and should drink more.



You're seriously dehydrated, drink now!