

THE INSIDER'S GUIDE TO



OPTIMAL HEALTH AND FITNESS **HYDRATION**



IMPORTANT – this guide should be used as a general, but credible, guideline for proper hydration - you must take into account your own profile when considering your own hydration needs. It is recommended that you consult with your own physician or sports training professional on this matter - as they will be best equipped to factor in your specific points of consideration when advising you about hydration.

VERY IMPORTANT – If you feel that this guide was helpful to you, after reading it – please feel free to send/forward it to anyone who you think may benefit from it – such as friends, family members, co-workers and/or team mates. You are granted full permission for sharing this digital e-guide, in its original, unedited format.

Hydration Re-education

It's no wonder there is still so much confusion about optimal hydration - better know as proper water/fluid intake. With so many viewpoints, marketing angles, opinions, new studies, and 'advice from your hairdresser's cousin's boyfriend who used to be a personal trainer' - there is a lot of room for myths and misunderstandings to be passed around until they falsely become (or remain) harmful 'fact'.

So, how do you know what's right and what's wrong in order to make the best decisions for you and your family?

First, we start with a clean slate. By doing this - I'll be able to keep this simple enough for you to fully grasp, understand and most importantly, be able to act upon. So, for now - I'll ask you to 'forget' everything you thought you knew about hydration - even though some of it might be correct. After reading this guide - you'll be able to distinguish the 'right from wrong' information so you can take appropriate action.

Two Main Categories of Proper Hydration

The two general categories of hydration I will address here are:

- 1 - Optimal Health and Fitness
- 2 - Optimal Sports Performance

The best place for us to start this discussion is by looking at the two extreme ends of the hydration spectrum. Those are: drinking too much water and not drinking enough water.

The key point I will illustrate here is that both extremes can kill you. Here's how:

Drink two gallons of water inside of 3 or 4 hours and you're dead. Grim, but true. It has happened many times.

The most recent, publicly visible incident of this was in early 2007 - and caused

the death of a 28 year old, mother of 3, who decided to compete in a ridiculous contest held by Sacramento radio station, KDND-FM, called "Hold Your Wee for a Wii." Investigative reports of the incident concluded that she drank about 2 gallons of water within several hours. She won the contest and shortly after arriving home - she died.

On the other end of the spectrum we have dehydration. It's quite basic and probably easier to understand. Deprive your body of water (or fluids that can be substitutes for water) for about 3 days - and you'll be lucky to be alive on day four.

The actual time to death may be a little shorter or a little longer depending on other conditions - such as medical status and climate conditions.

What does the fact that both extremes of water consumption can kill us mean? It means that nature wants us to stay in the middle range, between these two extreme zones, in a state of 'balance' - not too much water in the body - and not too little.

As we move further away from the ideal mid-zone of hydration - we start to experience 'symptoms' that indicate what the body is going through - and what needs to be adjusted.

Over-hydration

For example - a 'water fanatic' may find they are visiting the bathroom every 30 minutes to urinate. Logic and common sense alone would tell us that this many interruptions in the course of a day is too many and un-natural.

Don't get me wrong - I'm all for carrying around a 16 or 20 ounce bottle of water, green tea or Atlasjuice, most of the time - but not always.

But we all know those types who won't leave home without their one-gallon jug of spring water - and who are running to the restroom every 25 minutes. The fitness myth of 'drink lots of water' started in the early eighties and still lives on today in certain circles.

Not to get too medical - but besides the schedule stress this might add to someone's life - it also places unnecessary stress on the body - primarily the kidneys - a stress that can eventually lead to medical complications.

So the earliest symptom of 'over-hydration' is peeing too often. Simple, but logical, right?

The solution? Drink less by either cutting back on the amounts each time you drink - or simply decrease the number of times you put water into your body.

Dehydration

Many experts strongly suggest that many common ailments and illnesses are the

direct result of chronic, early stage dehydration. Chronic dehydration being - 'taking in too little water for very long periods of time'.

Some of the common symptoms of early stage dehydration may be; headaches, stomach discomfort, fatigue, nausea, muscle stiffness, joint aches, mental fogginess and poor skin complexion.

The simple solution for chronic/early stage dehydration is to increase your water intake, preferably through frequency (number of times during the day that you drink water). I am well aware that this touches on a problem for many people. That problem being the 'dislike for water'.

I used to be amazed at how many people would tell me they simply do not like drinking water. But, as I have approached 'middle age' - I have developed a better understanding of why.

In the past several years I have noticed my 'thirst' for straight water has decreased. Not totally - but I do find myself sometimes wanting something more than just water - when in reality, plain old water will do the trick.

The combination of really understanding how many people have a dislike for water - and my own desire for something with a little more substance, to maintain adequate levels of fluid intake - is one of the main reasons I created Atlasjuice.

Here is one way I help people put hydration/dehydration into context - in order to motivate them to hydrate on a regular basis:

"If going without water, or another hydrating fluid, can kill you quickly - then going with too little water, or similar fluid, for extended periods of time might be killing you slowly."

Difference Between Fitness Hydration and Sports Hydration

There are two primary differences between hydration for fitness and hydration for sports. Hydration for sports usually requires higher levels of electrolytes and calories (for energy) as compared to hydration for general health and fitness purposes.

Why do we need to drink before, during and after exercise or athletic events?

Drinking before, during and after exercise or sports aims to provide:

- * Water and electrolytes to replace what is lost through sweat
- * Carbohydrates to replenish energy stores that are used for fuel

Your choice of specific drink will depend on whether you need a drink to replace water and electrolytes or to provide more calories for energy (in the form of carbohydrates) or both.

There are three types of drinks:

- * Hypotonic
- * Isotonic
- * Hypertonic

Hypotonic

Hypotonic drinks are absorbed into the body more quickly than plain water. They usually contain very low levels of carbohydrate, less than 3g carbohydrate per 3.4 ounces (100ml) and may have a little salt added (for electrolyte replacement).

They quench thirst and provide fluid, but do not add unnecessary amounts of energy (in the form of carbohydrates) - making this type of drink IDEAL for general health and fitness purposes.

When to Use: They are a good type of drink to choose when you want to replace fluid quickly without a lot of carbohydrate e.g. when training lasts for less than one hour and is of low to medium intensity.

They can also be useful if you need a high fluid intake when in a hot climate and do not want to consume too many calories - a plus for people who are watching overall caloric intake.

Isotonic

Isotonic drinks are absorbed as fast as or faster than plain water. In addition to replacing fluids they also provide carbohydrate, 5 - 8g carbohydrate per 3.4 ounces (100ml).

They are designed to provide carbohydrates to fuel the muscles, and have a little salt added to enhance the absorption and retention of fluid in your body.

Most popular commercial sports drinks fall into this category. However, their relatively high sugar content (unnecessary calories) does not make them ideal for general health and fitness purposes.

When to use: Isotonic drinks are good for replacing fluids and electrolytes, and providing carbohydrates for energy if you are training for more than one hour at medium to high intensity. They can be consumed before, during and after training or an athletic event but are usually most appropriate during the activity.

Hypertonic

In these drinks the carbohydrate (calorie) content is much higher, usually more than 10g carbohydrate per 3.4 ounces (100ml). Hypertonic drinks are absorbed more slowly than plain water. They replace lost energy (calories) or simply add unnecessary calories in many cases, rather than replacing fluids and therefore are

not an effective, fast way to re-hydrate as it pertains to fitness or sports activity. Some examples are pure fruit juice, many canned drinks and 'energy' drinks.

When to use: These types of drinks are taken when energy (calorie) replacement is the priority rather than fluids and can be used to top off your daily carbohydrate intake. This usually only 'might' make sense for high-level athletes who are gently carb-loading before a big event with high energy demands.

The above is a brief look at the 3 types of beverages that might be used for hydration purposes. Not all scenarios or factors could fit into this e-guide - but I will be addressing them in future articles at the Atlasjuice Blog: <http://atlasjuice.com/the-fit-blog/> - visit when you are done reading this to sign up for automatic updates of new articles that I post.

Is Water the Only Thing That Counts as 'Water'?

This is a question that 'never goes away' - but it's one that warrants a solid answer. One key element that plays into this answer is the myth that "only straight, plain water can count toward your daily water requirements - no other beverages can be a part of your daily water intake quota..." - that myth simply 'holds no water' - pun intended ;-))

I am planning an article for the Atlasjuice Blog - that explains more of the science and physiology behind the debunking of this myth. (article to be posted soon!)

For purposes of 'knowing now' - here is what you can take away from this e-guide:

The average person is not too far out of the zone of optimal hydration for health and fitness purposes and can definitely stand to improve hydration status.

Most people do not consume enough water (or water-like fluids) - because they have become used to 'tolerating mild thirst' - this, combined with the fact that most of our 'modern foods' are too high in sodium content - results in a hydration imbalance.

Some medical experts claim this is one of the main causes of hypertension (high blood pressure) and a host of other illnesses. (More about that will be posted on the Atlasjuice Blog in future articles.)

The simple adjustment of dietary sodium reduction with an increase in daily fluid intake could shift most people into the optimal hydration zone.

Now here is where we have to think a little. When we consider factors such as activity levels, climate conditions, medical profiles and prescription medications - there will most likely be a change in hydration requirements, which will require some logical adjustments.

At the most basic level - the more active you are (physically demanding job, exercise, athletic events & training) and the hotter the climate - the higher your fluid intake will need to be in order for you to stay adequately hydrated and 'fully

functional'. The level of energy exertion, calorie expenditure and sweat production will be the main factors in dictating hydration requirements. Generally speaking - the more you do - the more you will need.

'Diet' Drinks - the Good, the Bad and the 'Evil'

I'll save 'the good' for last. First I want to present you with 'the bad and the evil'.

There is a mountain of articles, studies and opinion letters that clearly illustrate why it is wise to avoid all forms of chemically created and patented sweeteners. It is important to note that these can be found in the most surprising places - not just diet drinks.

For example - I wasn't only shocked, but a bit angry, to find that one of our favorite (previously favorite) breads contained sucralose - and it wasn't even positioned as a 'diet' or 'low-carb' product! (There is a bigger lesson in that discovery - which I'll address later on.)

I speak in more detail about this in my book, 'Fatness to Fitness' (www.YourFitnessBook.com) - but I will give you the summary facts here:

In the late 80's and early 90's - I was deeply into competitive bodybuilding. So, any food or drink that tasted good or sweet and had no calories was a perfect thing for my diet. This was a great way to keep total daily calories at body-fat burning levels. But it came with a price.

It's important to note that I continued using these no-calorie 'diet' items even after I was actively competing - because it was an 'easy way to prevent unnecessary caloric intake'.

As I incorporated more 'diet' beverages into my daily schedule - my consumption of chemical sweeteners also increased. I had a full supply of 'diet sodas', 'diet fruit drink mixes' and 'diet iced teas' on hand at all times.

Now, I didn't drink a lot of these but my intake was regular and consistent. So, the presence of aspartame (Equal, NutraSweet) and acesulfame potassium in my body was constant.

After a while I began experiencing headaches on a regular basis - something that was not normal for me. I also noticed a puffiness in my skin, stomach bloating and an overall sensation of 'just not feeling right'.

There were also some other 'side effects' that I'll talk about on the blog in future articles. But for our purposes today - here is the key point:

I knew something in my diet was causing these weird symptoms. So I did a quick review of what I was consuming each day - and the one thing that was different as compared to my long term nutritional history - was the use of artificial (chemical) sweeteners.

I did a little bit of research and simultaneously stopped all intake of any items

that contained any artificial sweetener(s) as an ingredient.

Not surprisingly - my symptoms were gone in a matter of a few weeks. And I felt incredible again.

At this time I realized that many of my male and female bodybuilding/figure competitor pals were having some of the same experiences. Those that were wise enough to remove these agents from their diets - were the ones that got rid of the strange symptoms they had been experiencing.

This was an extremely valuable and very intriguing experience for me. It taught me things that I will use forever in my quest to help people 'find the right path' to optimal fitness.

Remember this was back in the late 80's and early 90's - and now comes the 'evil' part of this. The chemical sweeteners that were around back then - are still around and being used in so many foods and beverages it's almost impossible to keep track of it.

Even more frightening is the fact that there are new chemical sweeteners that have been introduced in the last decade or so - with more 'under development' as we speak.

The bottom line is - it's up to us - to make the decision to be wise consumers and advocates of our own health and well being - or just buy whatever new products come to market with the 'blind faith' that someone else is looking out for our best interests. More about this to be presented later, on the blog.

Unsuspecting Soccer Moms Poisoning Their Little MVPs

From general population, mass market diet drinks we can make a connection to some 'hybrid' sports drinks. Most unsuspecting consumers have no idea what the items listed on the ingredients label actually are - if they even bother to take a look at them in the first place. I'll illustrate this with another firsthand account...

Just a few weeks ago I stopped into our local supermarket to pick up a few items for the nutrition area at Atlas International Headquarters. A nice older lady with a hairnet - who was manning a sampling station, stopped me in my tracks and asked if I wanted to taste G2, the new low-calorie version of Gatorade. She said it was 'delicious' and healthy.

Keep in mind, she had no idea who I was - as I keep a fairly low profile in my local area. So I played the fool for a little while and got into a 'conversation' with her.

I did this not to argue - but to see what the company was 'teaching her' - in order for her to do these little presentations for people and their kids - as they walk through the store.

I asked, "Aren't there artificial chemical sweeteners in there?"

She said, "No, it's all natural - you should try it."

I asked, "How is it less calories but still sweet?"

She said, "They use another form of sugar - but it's still natural."

I said, "Are you sure? Let's look at the label together."

I pointed out 2 of the chemical sweeteners on the ingredient list and gave her a brief explanation of what they were.

I told her not to feel bad - that these additives are in a lot of foods and beverages and even 'us experts' get fooled sometimes.

I left her with one last thought. I said, "If you have grandkids that play youth sports - make sure you tell their parents not to give them this kind of stuff. There are many other options that are healthier and safer."

Good Stuff Is Within Arms' Reach

Ok - now you want to hear about something good, right?

Let's face it - nothing beats the simplicity, availability and hydrating effects of plain old water for everyday fitness. Add a dash of sea salt and a little bit of sugar and you have a home-made electrolyte beverage for high intensity training or athletic events - without all of the unnecessary artificial colors and artificial preservatives.

Like most people though - I appreciate a refreshingly healthy and lightly flavorful alternative to regular old water at least once a day. This is one of the main factors that drove me to create my own 'fitness beverage'.

I found a couple of things outside the mainstream that were in the general zone of what I had in mind - but not quite my vision of the ideal fitness beverage that was in line with my philosophy and teachings.

For example - a very interesting find was a natural diet soda alternative called 'Zevia' (Zevia.com). What I liked most about this was the fact that it contained the naturally sweet, health promoting, botanical herb, stevia - one of my all time favorite health food ingredients - and a main ingredient in Atlasjuice. However, carbonated beverages are not something I'm really hooked on - when it comes to fitness hydration.

Another surprising find was a product called 'Zingers To Go' from Celestial Seasonings - a pretty large company with many mainstream grocery products to it's name - some of which you may have in your house right now.

What surprised me about this product the most was the fact that this huge company, that operates under the main name, The Hain Celestial Group, Inc., put together a calorie free product by using a healthy sweetening alternative - my favorite herb, stevia.

I bought it and tried it.

The verdict?

Compared to other things out there - this was not too bad when it came to taste - but there was something missing for sure - as it could only be described as a watered down beverage that is searching for its own flavor and identity.

A great concept - but not something that would satisfy my need for a refreshing and low calorie 'fitness beverage' - and not something that I would recommend to others.

I found a few others - but because of their high calorie content (95 - 225 calories per bottle) they just didn't fit the mold for the ideal fitness beverage that I envisioned.

So - as you already know - I decided to create it myself. Later for that, though, as I have some more helpful info regarding proper hydration and fluid intake for optimal health, fitness and performance.

Two Most Common Questions Regarding Hydration and Fluid Intake

The first one is, *"How much water do I need to drink each day?"*

>>Answer:

A decent baseline rule of thumb is to take half your bodyweight - and that number would give you how many ounces to aim for in your daily water intake.

For example - a 130 pound woman - would aim for drinking about 65 ounces of water (achievable by drinking an 8 ounce glass of water every 2 hours), or a combination of water and other liquids that can count as water - in the course of a full day (assuming you sleep about 8 hours per night - leaving 16 hours of 'awake' time).

For a 180 pound man - this would be 90 ounces - achievable by drinking a 12 ounce glass of water every 2 hours, or a combination of water and other liquids that can count as water - in the course of a full day.

Remember, this is a general rule of thumb - and your specific circumstances may require a different level of daily fluid intake.

The second most common question is, *"When is the best time for fluid intake?"*

>> Answer:

-- FOR GENERAL HYDRATION

1 - Eight to 12 ounces first thing in the morning - within the first 10 - 20 minutes upon awakening. This is crucial to replacing water that has been lost during the night while you were asleep. This happens through respiration, perspiration and urination.

2 - Eight to 12 ounces, 20 to 25 minutes before each meal - this gets the digestive system 'prepared' for the meal and optimizes digestion.

3 - Eight to 12 ounces 1.5 to 2 hours after a meal to replenish water used during the digestion process.

4 - Eight to 12 ounces 15 to 25 minutes before exercise.

5 - Eight to 12 ounces at the first sign of 'between meal' hunger pains - for people interested in body fat reduction - tiny hunger pains are not a good reason to look for a food snack - but rather should be thought of as your body looking for some fluids. Drinking water or a healthy low-calorie beverage has been proven as a very powerful tactic for people who seek to reduce body fat and tone up - or maintain a lower (and healthier) level of body fat.

6 - Eight to 12 ounces when you feel thirsty - obvious but often forgotten as the most primitive sign that your body 'needs' fluid.

-- FOR HIGH INTENSITY TRAINING OR ATHLETIC EVENTS

All of the above (1 - 6) will apply - with the following additions:

A - The pre-training beverage may contain a combination of simple carbs (sugar) and electrolytes (my favorite is a pinch of unrefined sea salt - because of the natural spectrum of electrolytes and trace minerals). I make this for my 12 year old, JoJo, to hydrate with during soccer games.

B - The same additions should be used for hydration during the event. The hotter and more humid the conditions - the more attention will need to be paid to hydration throughout the event. It is important not to 'guzzle' your fluid - but rather to take smaller sips at higher frequencies. This may be adjusted, of course, depending on your sport or type of training.

C - Continue 're-hydration' after training or event (for 1 to 2 hours) with simple carb/electrolyte mixture from above - and then move into regular hydration schedule (mostly water) as carbs and electrolytes will be derived from a healthy and balanced diet.

IMPORTANT - the above should be seen as general, but credible, guidelines for proper hydration - and you must take into account your own profile when considering your own hydration needs. It is recommended that you consult with your own physician or sports training professional on this matter - as they will be

best equipped to factor in your specific points of consideration when advising you about hydration.

What Other Benefits Does Proper Hydration Offer?

When I started writing this section of this guide - I got about 8 pages into it, touching on subjects ranging from enhanced sexual function to improved skin texture/complexion to improved energy levels - and I realized I wasn't even scratching the surface - and I still had at least 17 more points to touch on. I didn't want to turn this into a 90 page download - so what I've decided to do is break down this section into 'more digestible' chunks of information - which I will post as individual articles on the Atlasjuice blog.

They will all be free, just like the e-guide - so if you want to read them as I publish them be sure to sign up for automatic notification - so each time I post a new article - you are one of the first to know about it. Just go to <http://atlasjuice.com/the-fit-blog/> - and on the right side you'll see 'Subscribe via Email' and 'Subscribe in a Reader' - choose one - or choose both methods - they are both free for you - and it ensures that you won't miss a thing from me.

See you at the Atlasjuice blog...



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'Get Your Water In'



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