# Addison Smith's Hydration Plan

# You lose 921mg of sodium per litre of sweat.

This makes you a moderately salty sweater.



Now that we know how salty your sweat is, we have a crucial part of the equation for understanding your approximate net sodium and fluid losses.

By combining that with the context of how you train and compete we can start to personalise your strategy.



So, let's dive in to your new hydration plan.

We've recommended the electrolyte drinks that are right for you in different scenarios and then given you some advice on when and how much of them to drink in the tabs below.

We'll also break this down for you on email over the next few weeks and if you have any questions please <u>reach out</u> to the team at Precision Hydration or contact your Sweat Expert.

## **Summary of Recommendations**

# Your Strategy



Read our advice on when and how much to drink in the tabs below.

# **Dealing with Cramp**

### How to avoid race-ruining cramp

Whilst there are many causes of cramp, those that occur after large sweat losses are probably most likely caused by electrolyte/fluid imbalance. This can cause a contraction of the fluid compartment around your muscles and a misfiring of nerve impulses, triggering the cramp.

Preloading on sodium before exercise that would normally result in cramping is an easy way to see if your cramps are electrolyte related. In a recent survey, 89% of athletes who'd reported issues with cramping said that using PH 1500 had helped stop or reduce their cramp.

If you're not carrying fluid with you then taking some <u>SweatSalt capsules</u> with you to swallow with water at aid stations can be extremely beneficial.

For more on the different theories on what causes exercise-related cramp, read this blog.

Cramping has also been linked to poor pacing (i.e. going too hard), glycogen depletion and muscular fatigue, so we've put together a checklist to help you make sure you're doing all you can to prevent it ruining your performance:

### **Cramping Checklist**

Before you start, have you...

• Preloaded with PH 1500? (Drink 1 x PH 1500 the night before a key ride and another 90-45 mins before you get onto the saddle).

Read this blog for more on the science behind preloading.

Topped up your glycogen stores?

Check out this piece for advice on how to get your carbs in.

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- Worked out an appropriate pacing plan?
- Tapered and rested up to minimise fatigue?

Still cramping up? Try...

- Consuming extra sodium (SweatSalt capsules or PH 1500 are ideal).
- Taking in additional carbs.
- Slowing your pace.
- Stopping to stretch the affected muscles.

# **Pre/Post Race**

### How to start hydrated

Drinking a strong electrolyte drink to optimise your hydration status before key runs can significantly improve your performance.

We call this "preloading" and it's all about getting you to the start line ready to perform at your best.

It's incredibly useful before longer distance running races because starting fully hydrated gives you a much bigger reserve of fluids and electrolytes to draw upon once the race begins.

## What to do

- Drink 1 x PH 1500 with 500ml (16oz) of water the evening before the race.
- Drink 1 x PH 1500 with 500ml (16oz) of water a few hours before the start.
- Finish your drink at least 45 minutes before you start to give your body time to fully absorb what it needs and pee out any excess.
- Drink the PH 1500 in water you'd have drunk anyway to ensure you don't overdo it.
- DON'T just drink lots of water in the build-up to a race. You can end up diluting your body's sodium levels before you start, increasing the risk of hyponatremia.

## Why

- Boosting your blood plasma volume before intense exercise is a proven way to enhance your performance, especially in hot conditions.
- Having more blood makes it easier for your cardiovascular system to meet the competing demands of cooling you down and delivering oxygen to your muscles.
- PH 1500 is very effective for pre-race hydration as it contains 3x more sodium than a typical sports drink. That extra sodium helps to pull water into your bloodstream and keep it there.
- You can't preload as effectively with weaker sports drinks as you'll just pee a lot of it out. Or it'll slosh around in your stomach without being properly absorbed.

### How to optimise your recovery by hydrating properly

Most athletes finish running races dehydrated to some extent. Research and experience suggests that, in most cases, there's nothing wrong with this. It's better to finish a little bit dehydrated rather than with <u>hyponatremia</u>.



A loss of 1-4% body weight is pretty typical for most people in normal scenarios, possibly even slightly more in ultra distance events where you burn a lot of stored fuel as well as losing fluid through sweating.

Restoring hydration levels is a crucial part of the recovery process. Research shows that drinks containing sodium enable better rehydration as it allows the body to hold onto more of the fluid.

We recommend mixing up a 500ml (16oz) bottle or two of PH 1500 to sip in the first few hours after you finish. Just drink as much as you feel you need to. The extra sodium in PH 1500 makes it much more effective than drinking water alone.

# **During Race**

When you're racing for more than 4 hours, hydration and electrolyte balance play a crucial role in maintaining your performance, especially towards the later stages of an event.

It sounds like your fluid and electrolyte requirements could be **higher than average** so, if you're planning to carry a drink with you, we'd recommend using PH 1000 in your bottles or hydration pack. It's our second strongest drink. Just add one sachet per 500ml (16oz).

If you're aiming to rely on aid stations for your drinks -that's a good idea if there are plenty on the course, as it saves carrying extra weight - you can use SweatSalt capsules to replace some of your electrolyte losses instead. Just take 2 capsules for every 500ml (16oz) of water you drink at the aid stations. If you are carrying fluids, SweatSalts can come in handy once you've run out, or if you drop a bottle.

## How much should you drink?

Every athlete is different, but here are some guidelines to help you hone in on what works for you...

- Listen to your body and respond to the early signs of thirst to decide when you need to drink.
- It's not wise to force fluids in if you don't feel like you want them, but nor is it a good idea to wait until you're really thirsty before you start drinking.
- The main signs you're not drinking enough are thirst and a dry mouth.
- Signs you're drinking too much are that you feel bloated, can sense fluid sloshing around in your stomach, or if you need to pee too often during the race.
- As a rule of thumb, very few runners can comfortably drink much more than 750ml (24oz) per hour especially when running hard so unless experience tells you otherwise, it's unlikely you'll need to drink more than that, especially if you got to the start line well hydrated.

Ultimately experimenting within these guidelines and learning what your body needs is the best way to find out how much you need to drink during a race.

# **Pre/Post Intense Training**

### What to do before/after training to optimise your hydration status

A lot of athletes start training mildly dehydrated on a regular basis.

If you run the risk of starting any longer/more intense training sessions less than optimally hydrated, **drinking a 500ml (16oz) bottle of PH 1500 about 90 minutes before you start** can really help you maintain your performance and get more out of your session. This can pay dividends when you get to race day.

PH 1500 contains 3x more sodium than most typical sports drinks and this extra sodium helps your body absorb and hold onto fluid more effectively than if you just drink water (or a weaker sports drink). This makes more fluid available for your body to draw on when you start sweating during your session.

# You don't need to be preloading before every training session, in fact most sessions don't call for it. It's more of a tactic to get you out of trouble if you've not kept on top of good day to day

# hydration and you have a particularly long/intense training session ahead of you where you'll be sweating a lot.

Even when drinking to thirst during training, you'll often end up a little bit dehydrated by the time you finish. That's ok as long as it's not to a degree that's negatively affecting your performance.

Restoring hydration levels after training is a crucial part of the recovery process. In most circumstances, simply rehydrating and replenishing electrolytes through the food and drink you consume after training is fine. But, there are times when you might benefit from a proactive approach to rehydration, such as...

- when you're doing another workout soon after the first one.
- when you're aware you've sweated out a lot more than normal during a session (due hot conditions, or a very long duration, for example)
- when you're training late in the day and you're going to bed soon after finishing, so won't have much time to eat and drink afterwards.

In these circumstances, we recommend mixing up a 500ml (16oz) bottle or two of PH 1500 to drink in the first few hours after you finish. Research shows that drinks containing sodium enable better rehydration as they allow the body to hold onto more of the fluid.

# **During Training**

It doesn't sound like your sweat/sodium losses are especially high in a typical training week, so the amount you need to drink in most training sessions should largely be dictated by thirst.

Just drinking water to thirst is likely to be all you need during your shorter training sessions (up to about 90 minutes). That's assuming you're starting those sessions well hydrated in the first place.

Add some PH 500 to your drinks (or carry some SweatSalt capsules) when you're...

- training for more than 90 minutes.
- planning a session where you'll be sweating a lot, such as high intensity turbo set or anything out in hot and humid weather.
- doing more than 1 workout on the same day.

This will help you replace some of the electrolytes you're losing in your sweat, leading to better overall hydration, performance and recovery.

# **Other Information**

### Useful things to help you implement your new strategy

These blogs answer some of the questions athletes have about rolling out their new hydration plan...

### Which PH formats should you use?

Our supplements come in 3 different formats, all-natural/3% carb drink mixes, zero-calorie effervescent tablets and blister-packed SweatSalt capsules designed to be swallowed whole with water on the move.

Each format has it's advantages and most of our athletes will use each of them in different scenarios

For more on the differences between our different supplement formats, read this.

### Fuelling when you're drinking PH to stay hydrated

Our products contain 0-17g of carbohydrate per serving (depending on which one you choose), so you'll need to get the majority of your energy from other sources. Some people mix PH with their energy-focused drink mixes, but we generally advocate leaving your fluids for keeping you hydrated and fuelling your efforts through solid

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and semi-solid foods.

Read this blog for more on how we see PH fitting into your wider nutrition strategy.

This piece explains <u>why there's a small amount of sugar in PH's all-natural drink mixes</u>. There's no sugar in our zero-calorie H2Pro effervescent tablet range (i.e. the tubes).

You may also find these blogs useful as you refine your nutrition strategy...

Should you just stick to real food to fuel your event?

Should you make fruit and veg your main source of carbs?

### **Avoiding hydration pitfalls**

Can you drink too much Precision Hydration?

How to tell if you're dehydrated

<u>What is hyponatremia and how can you avoid it?</u>. Definitely worth a read given studies have shown that  $\sim$ 10-30% of Ironman finishers show the symptoms of this performance-harming (and potentially dangerous) condition!

How to stay hydrated on the way to an event

Is coconut water a good sports drink?

How to stay hydrated when carrying fluids is difficult or not an option

#### More of the science and research behind your PH strategy

Everything we recommend is backed up by research. Here are some blogs summarising the science behind key aspects of your hydration plan...

A more in-depth look at why sodium is so important to your performance

The research behind our advice on preloading

More on the science behind our post-activity hydration advice

<u>The different types of sports drink and when to use them</u>. This explains why our products are all hypotonic rather than isotonic like traditional products.

How well do different drinks hydrate you? Because you can't drink PH all of the time!

### Want more advice?

See how the elite athletes using PH stay hydrated (and more) in our interview section and testimonials page.

Check out our <u>Hydration Advice blog</u> for more performance advice.

Still have a question? <u>Visit our Help Centre</u> or reach out using the contact details below.

# **Contact Information**

### Contact us

Couldn't find what you're looking for in our <u>Help Centre</u>? Sorry about that! You can get in touch with us by emailing us at <u>hello@precisionhydration.com</u>

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Or, reach out to Jeff Pierce at jpierce@trainright.com.

Thanks and train hard!