### Recommended SaltStick Caps PLUS Usage Guide

by Jonathan Toker, Ph.D.

#### General usage



SaltStick Caps PLUS are crucial to minimize muscle cramping, heat stress, and fatigue due to unbalanced electrolyte levels. Caffeine increases alertness and reduces fatigue.

SaltStick Caps Plus contains a balanced and buffered mixture of the electrolytes that are lost in sweat, in a ratio and form that your body needs for optimal performance. The general guideline for supplementation has been successful for most athletes in a wide range of event distances and training durations. The basic idea is to keep your supplementation simple and effective, so you have one less thing to worry about on race day, and you can focus on the athletic event rather than on surviving your nutrition plan.

As a general guideline, athletes should consume one SaltStick Caps Plus every 20-60 minutes during any land-based activity (bike/run) for the duration of the activity. In hot conditions, extreme humidity, or for larger athletes, a greater number of capsules may be needed to maintain safe electrolyte levels. The maximum number of capsules recommended per day is 15, although athletes in extreme conditions and longer events may find it necessary to exceed this number. It is strongly recommended to test your

planned electrolyte protocol in training several times before race day.

It should be stressed that every athlete sweats differently, reacts to heat and humidity differently, and reacts to the stress of a race or training differently. What this means to the athlete in particular is the importance of testing one's electrolyte replacement strategy in training, prior to race day. Listening to your body prior to and during an event is also key, so you can adapt your electrolyte plan accordingly. Being flexible and keeping your plan simple will give you the best chance of success.

### Opening capsules into water bottles

Many athletes find it convenient to open 1 or 2 capsules into a water bottle to create a custom caffeinated electrolyte beverage. Note that the SaltStick Caps Plus formulation is fully soluble in water while the SaltStick Caps product leaves a small insoluble residue. A small amount of flavoring (sports drink powder or sugarless drink mix) may be added to enhance the taste. Water bottles prepared in this manner should be consumed as prepared, with limited fresh water as additional fluid. A super-concentrate electrolyte solution can be prepared by adding several capsules to water. Usage of the super-concentrate would involve diluting down a small gulp of the concentrate with fresh water. The downside to this method is an increased risk of miscalculation of electrolyte intake and a strong salty taste. Whichever method is employed, it is strongly recommended to test the protocol in training several times before race day.

### Specific Guidelines

#### **TRAINING:**

**Pre-training:** No specific supplementation is necessary. Maintain adequate hydration with sufficient electrolyte content in the days

leading up to a major training block to maintain your weight. It is suggested to use the SaltStick Caps (non-caffeinated) product until race day. For long distance training under extreme conditions, take 1 SaltStick capsule (non-caffeinated) the night before your activity, and one SaltStick Caps Plus with breakfast before your activity.

**During training:** Most athletes will find that normal training less than 2 hours should not require too much in the way of electrolyte supplementation, and water alone will suffice. Riding or running longer than about 90 minutes, or shorter in hot or humid conditions, should consider taking a SaltStick capsule every 30-60 minutes along with sufficient fresh water to stay hydrated. A mixture of sports drink, water and SaltStick Caps can also be a successful combination. Many athletes find that carbohydrates in the form of gels and energy bars is a good match for water-SaltStick Caps, eliminating the need for a sports drink.

**Post-training:** Maintaining proper hydration and electrolyte balance during hard training can be nearly impossible, and proper postworkout recovery is facilitated by ingesting fluid with electrolytes. This can take the form of a balanced electrolyte supplement along with carbohydrates and protein. A simple strategy to ensure adequate electrolyte replenishment is to take 1-2 SaltStick Caps after a hard workout. Excess electrolyte ingestion will simply be excreted in the urine.

# RACING: SPRINT TO OLYMPIC DISTANCE TRIATHLON, HALF MARATHON TO MARATHON (1-4 HOURS OF EXERCISE)

**Pre-event:** Specific supplementation is not usually necessary. Maintain adequate hydration with sufficient electrolyte content in the days leading up to the event to maintain your weight. It is suggested to use the SaltStick Caps (non-caffeinated) product until race day. For races expecting extreme conditions, take 1-2 SaltStick Caps

(non-caffeinated) the night before your event, and one SaltStick Caps Plus with breakfast before your event.

**Race time:** For a triathlon, begin electrolyte supplementation on the bike portion of the race, at least 15 min. into your ride. Take 1-3 capsules per hour during the event. For a running-only event, consume 1-3 capsules per hour during the entire event. For events lasting less than an hour, pre-event supplementation should be sufficient under most conditions.

**Post-race:** Maintaining proper hydration and electrolyte balance during an event can be nearly impossible, and proper post-race recovery is facilitated by ingesting fluid with electrolytes. This can take the form of a balanced electrolyte supplement along with carbohydrates and protein. A simple strategy to ensure adequate electrolyte replenishment is to take 1-3 SaltStick Caps after a race. Excess electrolyte ingestion will simply be excreted in the urine.

## RACING: HALF IRONMAN DISTANCE TRIATHLON, MARATHON/ULTRA-MARATHON (4-8 HOURS OF EXERCISE)

**Pre-event:** During the days leading up to your event, maintain your weight with adequate hydration with sufficient electrolyte content. It is suggested to use the SaltStick Caps (non-caffeinated) product until race day. The water bottle that follows athletes around to the race expo, etc... should be filled with fluid and electrolytes. This can take the form of a sports drink or water and 1 SaltStick cap per 1-2 water bottles, either as a capsule or dissolved in water. A word of caution goes to consuming unnecessary and empty calories in the form of sugars. When in doubt, read the nutrition information on the product in question. For most races, take 1-2 SaltStick Caps (non-caffeinated) the night before your event, and one SaltStick Caps Plus with breakfast before your event.

Race time: For a triathlon, begin electrolyte supplementation on the bike portion of the race, at least 15 min. into your ride. Take 1-3 capsules per hour during the event. For a running-only event, consume 1-3 capsules per hour during the entire event. Hot or humid conditions may require more than 3 capsules per hour.

**Post-race:** Maintaining proper hydration and electrolyte balance during an event can be nearly impossible, and proper post-race recovery is facilitated by ingesting fluid with electrolytes. This can take the form of a balanced electrolyte supplement along with carbohydrates and protein. A simple strategy to ensure adequate electrolyte replenishment is to take 1-3 SaltStick Caps after a race. Excess electrolyte ingestion will simply be excreted in the urine.

## RACING: IRONMAN DISTANCE AND ULTRA-MARATHON (8+ HOURS OF EXERCISE)

**Pre-event:** During the days leading up to your event, maintain your weight with adequate hydration with sufficient electrolyte content. It is suggested to use the SaltStick Caps (non-caffeinated) product until race day. The water bottle that follows athletes around to the race expo, etc... should be filled with fluid and electrolytes. This can take the form of a sports drink or water and 1 SaltStick cap per 1-2 water bottles, either as a capsule or dissolved in water. A word of caution goes to consuming unnecessary and empty calories in the form of sugars. When in doubt, read the nutrition information on the product in question. For all races, take 1-2 SaltStick Caps (non-caffeinated) the night before your event, and one SaltStick Caps Plus with breakfast before your event.

**Race time:** For a triathlon, begin electrolyte supplementation on the bike portion of the race, at least 30 min. into your ride. Take 1-3 capsules per hour during the bike portion of the event. Once on the run, many athletes find that cramping becomes more likely, and

dosing of SaltStick Caps may begin to climb. Towards the second half of the marathon, many athletes find that electrolyte intake becomes critical for forward movement, and may find it necessary to increase the dose of capsules per hour. Have some extra SaltStick Caps available in your special-needs bag (if available) as a backup measure. For a running-only event, consume 1-3 capsules per hour during the entire event. Towards the end of the race, many athletes find that electrolyte intake becomes critical for forward movement, and may find it necessary to increase the dose of capsules per hour. Hot or humid conditions may require more than 3 capsules per hour.

**Post-race:** Maintaining proper hydration and electrolyte balance during an event can be nearly impossible, and proper post-race recovery is facilitated by ingesting fluid with electrolytes. This can take the form of a balanced electrolyte supplement along with carbohydrates and protein. A simple strategy to ensure adequate electrolyte replenishment is to take 1-3 SaltStick Caps after a race. Excess electrolyte ingestion will simply be excreted in the urine.

### **Disclaimer**

Contact your physician before starting any exercise program or if you are taking any medication. Individuals with high blood pressure should also consult their physician prior to taking an electrolyte supplement. Overdose of electrolytes is possible, with symptoms such as vomiting and feeling ill, and care should be taken not to overdose on any electrolyte supplement.

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