

# SUPER WATER

## *Asea's salt and water supercharger*

R. Cunningham

**W**hat if there was a substance that you could take as needed that was undetectable, UCI legal, would boost your performance on the bike—and was good for your body? Would you be interested? Yeah, I was pretty skeptical when I heard that line, too. The product is called Asea, and it was originally formulated as an immune booster to ward off the effects of aging. During testing, however, athletes discovered that the stuff, which smells and tastes a bit like YMCA pool water, significantly boosted their recovery rates and allowed them to stay closer to their anaerobic threshold for extended periods.

So, the Asea folks spent the bucks for some independent tests on endurance athletes and discovered that athletes, on average, could push 10 percent longer at their maximum thresholds with high results in the 30-percent range and lows around 7 percent. After testing the stuff for three months, I'd have to agree with them. We could pedal harder longer and recover from repeated, 100-percent efforts in ridiculously short intervals. The word "recovery" is the operative in the Asea equation.

Recovery is the key to athletic performance. When we think about gaining strength, most often we obsess on the initial phase of training. We talk about tearing down our bodies, entering the pain cave or going anaerobic. Basically, we stress our body beyond rational limits in the vain hope that somewhere down the line, its internal recovery mechanism will respond by rebuilding the cells that we nearly destroyed into a stronger, more efficient configuration.

Glamorous as the no-pain-no-gain image is, however, athletic performance is far more dependent upon the body's ability to recover, and getting enough sleep is only part of the process. Complete recovery depends upon proper cell function. During or after a ride, millions of cells are communicating with each other and begging for much needed supplies, sending out crews to patch up damage and recycling the dead and wounded. When the body's recovery mechanism keeps pace, we ride strong and aren't dogged by soreness and pain. When we exceed its limitations, we suffer along with our cells.

### WHAT IT DOES

Asea's ingredients are listed as sodium and chloride, which suggests that a bottle of Asea is basically salt and water. Combined, sodium-chloride is simple salt, but when the two molecules are isolated, they are highly reactive (read "poisonous"). Inside the body, however, the mitochon-

dria in each cell produce special sodium and chloride molecules, which function as messengers that signal the various healing, defense and regenerative mechanisms, and they also facilitate communication between cells.

The process is called "redox signaling," which refers to matched pairs of reactive molecules (molecules with an unbalanced electronic charge). One molecule is a reductant; the other is an oxidant—thus the term redox. What these guys do for athletes is sound the alarm when our efforts throw our muscle cells into oxidative stress, and then they direct blood flow and regenerative microbes directly to where they are most needed. When the redox messengers are out of balance or exist in larger numbers than necessary, they are converted into Ph-balanced saltwater by antioxidant microbes. The beauty of redox signaling is that, instead of using an invasive drug to force the body to respond in a certain way, we introduce safe levels of nanoparticles to the cells that signal the body to safely heal itself.

The scientists who invented Asea figured out how to break down sodium and chloride molecules into the same structures that our cells produce. By nature, reactive molecules attach themselves to anything with an attractive electronic charge. The trick, which is not explained, is that Asea's inventors figured out how to suspend the sodium and chloride bits so they can make it into the body without being neutralized by the digestive system on their way to cells elsewhere in the body.

When asked to run independent tests and evaluate Asea, Dr. Gary Samuelson took one whiff of the stuff, and smelling chlorine, said "no way." Samuelson has a Ph.D. in atomic/medical physics and works in the health/science industry. Scientists are tragically curious, though, so Dr. Samuelson researched redox signaling and sodium-chloride at the country's top universities, and in a telephone conversation he told us that, indeed, redox signaling has become the highest priority in preventative medicine research—and that the ingredients that make salt are in the center of it all.

### HOW TO USE ASEAS

Asea is sold in 32-ounce bottles. After working with athletes in the laboratory, Dr. Samuelson recommends you drink 4 to 8 ounces about 20 minutes before exercising on an empty stomach. Cyclists who were part of the initial experiments say 4 ounces was good for one- to two-hour events, and 6 to 8 ounces would last for four to five hours. To assist with post-ride recovery, 4 ounces was recommended closely following the event.

There is no need for a daily dose to keep the redox level high; instead, you can use it on race day or when you know you are going out hard. Asea says that you can't overdose, because the body converts the excess redox molecules into saltwater. Because of this, however, Asea's information recommends that anyone who is required, for medical reasons, to be on a low-sodium diet should not use the product.

### WHAT SHOULD I EXPECT?

Initially, people drink 6 ounces and wait for some chemical "kick," like how a super-caffeinated Coke hits you when you are on the ropes. Instead, Asea quietly powers up the muscles, dramatically reducing recovery times after over-the-top efforts, and it enables you to push precariously close to the anaerobic threshold for prolonged periods of time. Typically, a cyclist can recover from three, perhaps four all-out efforts over the course of an event. Any more than that, and the athlete's overall performance will be cut short and every subsequent effort will be painful. Typically, Asea users can go hard over and over again and count on a full recovery within a few minutes. In addition, it is possible to push harder on the pedals for extended periods without going anaerobic. Most climbs can be ridden at least one gear higher, with some users busting out climbs in the next larger chainring.

### DOES ASEA MAKE YOU STRONGER?

Asea doesn't seem to improve your peak strength. If you

can't get over a particular hill in your big chainring today, six gulps of Asea won't power you over the mountain tomorrow. You still have to train to get stronger. Asea will help you maintain your existing strength over a longer period of time. For instance: If you could push the middle chainring up a 16-percent grade during the first 30 minutes of a ride, two hours later—when most riders would be clicking into the granny gear before a big climb—you could probably repeat that performance.

### WILL IT CHANGE THE WAY I FEEL?

Most people simply feel fresher and more energetic when using the stuff. Residual muscle pain and soreness is considerably reduced during a hard ride, so it encourages riders to push even harder. Because of this, you'll find yourself breathing much harder. We aren't scientists, but pushing bigger gears requires more oxygen, so we were probably huffing to keep the cells fueled—we were definitely pushing bigger gears.

### ANY SIDE EFFECTS?

Asea's redox action creates a higher level of salt in your body, so your sweat is noticeably saltier. Like the first hard workout after a French fry binge, your sweat may be salty enough to sting your eyes and you'll definitely want to shower right after an epic-length ride. Another by-product of elevated salt levels in the body is that you don't feel as

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thirsty. We found that it was easy to dehydrate if we didn't drink on a schedule during a ride.

### IS ASEA LEGAL FOR COMPETITION?

Yes. The UCI reviewed Asea in February 2010 and ruled that it was not on their list of banned substances. Asea, like most vitamins and supplements, is not a federally regulated drug, so Asea cannot legally make any performance or health-related claims.

### SHOULD I USE IT?

You'll have to make that decision on your own. Hi-Torque has a long-standing policy of not recommending any supplement or drug for cycling, partly for liability reasons, and also because we lack the resources to do double-blind scientific evaluations of every compound that claims to enhance performance. We can say, however, that our three-month trial use of Asea substantiated Dr. Samuelson's laboratory results.

### IS ASEA EXPENSIVE?

Asea costs about \$27 for a 32-ounce bottle, which is not all that expensive in the supplement marketplace. That works out to \$3.38 per 4-ounce serving. Those using

Asea in its intended role as an immune booster drink 4 ounces daily. Athletes using Asea as a performance enhancer can use it on demand, so one bottle can go a long way.

### WHERE CAN I GET MORE INFORMATION?

Asea offers a DVD that is not very informative, but they also furnish Dr. Samuelson's "Science of Healing Revealed," which is an illustrated, 64-page booklet that explains in very understandable terms how the redox signaling process operates in and around the body's cells. We'd recommend reading that, because it is not an infomercial for Asea and it includes a number of redox-signaling reference sources in the back pages.

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