

THE SCIENCE OF SMEAT:

Electrolyte Loss and Staying Hydrated by Carly Smith

Anyone who does physical activity for extended periods of time needs to think about hydration and electrolyte replenishment, and runners specifically need to consider this in terms of their training and race day nutrition. In determining the type and quantity of electrolytes to consume, most average runners make educated guesses. We don't all get the opportunity to have our specific electrolyte needs determined, but we'd probably jump at the chance to do so in the interest of staying fueled and performing better during long training runs and races.

Bill Frawley and Ken Taylor, co-owners of The Running Place, did get this opportunity and underwent an exercise sweat test facilitated by fellow store employee Mark Kotarski. Mark is an endurance athletics coach and owner of KET Fitness, and the sweat test was done at his athletic training facility, KET Fitness Multisport Training Center in West Chester, PA. The test measured how much fluid, sodium, chloride, and potassium were lost during 1 hour of treadmill running at a fairly intense effort. Bill and Ken each had a piece of gauze attached to their arms during the test to absorb sweat; the gauze would then be sent to a lab for analysis. They did not drink any water or sports drink during the test, because the goal was to measure levels of depletion, and replenishing fluids and electrolytes would interfere with the test results. They also weighed themselves before and after the run.

Mark sent the gauze to West Chester University to Sandra Godek, PhD for analysis. Dr. Godek has been gathering similar data from numerous other athletes. She stressed that in a field study such as this with data being gathered from multiple subjects, it's not really possible to have a study control group; it's preferable to have the same study



subject undergo the sweat test more than once in varying conditions to give a broader picture of the subjects' fluid and electrolyte loss. Ambient temperature, radiant temperature (heat from the sun), humidity, and convection (air flow) all factor into how much a person sweats and how much electrolyte loss will occur while they are sweating.

A person's unique physiologic makeup also plays a part in how much and how efficiently they sweat. Dr. Godek noted that appearances can be deceiving; you may see someone sweating heavily alongside someone who is not as sweaty and assume that the person drenched in sweat is sweating more, but this may not be the case. A larger person sweats more than a smaller person, but a smaller person may appear sweatier because their sweat is condensed in a smaller surface area. And a person who sweats heavily will not cool down faster than someone who sweats lightly; someone who has a sheen of sweat is sweating more efficiently because that lighter layer of sweat will

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UPCOMING EVENTS:

March 2nd • 10:00 am The Running Place Super Sunday Fun Run

March 3rd • 6:45 pm Monday Night Run & Pizza Night

March 9th • 1:00 pm Springfield, PA O'Hara Leprechaun Run 5K

March 15th • 10:00 am Ridley Creek State Park Pickle Run #3

March 15th • 8:00 am
The Running Place
Beginner Running Class

April 5th • 9:00 am Media, PA Tyler Arboretum 10k Trail Race

RUNNING CLASS

The spring Beginner Running Class starts Saturday, March 15th and will be held on Saturday mornings at 8 a.m. for 8 weeks (except Easter weekend, April 19). Kate Fonshell Taylor will lead this 8-week program building toward the completion of a 5k. The class is open to anyone wanting to start a running program who has a basic level of fitness. The cost for the class is \$50 and includes a GymBoss timer. Everyone who reaches attendance goals will receive a Running Place technical T-shirt.

The culmination of the class will be the Saint Katharine of Sienna Fitness Awareness 5k (SK5K) on May 10th in Wayne, PA. Class tuition does not include race registration fee. Visit our website for registration information.

BILL&KEN'S EXCELLENT ADVENTURE



PRE-RACE Q&A

by Carly Smith

2014

Some of you in the TRP community may not know that Bill and Ken are running their first Boston Marathon this year. Neither of them are one to toot their own horn, but I thought our readers would want to know why they're running, what their goals are, and how they're approaching this storied race. Look for a follow-up article in the next newsletter detailing their experiences surrounding race day itself. Join me in wishing them luck in Boston in April!

What, if any, time goals do you have for Boston?

Bill: It would be nice to run a 3:15 and re-qualify for Boston 2015.

Ken: Sub-3 hours would be nice, but the weather is not cooperating. Snow and illness have taken a toll on my training, so we'll see.

What inspired you to run the 2014 Boston Marathon?

Bill: Because of the bombings at last year's race, this will be an interesting year to run Boston. I think there will be a stronger, more intense sense of community and camaraderie surrounding the race than ever before, and I want to be a part of that.

Ken: I never had a desire to run Boston before. Actually, the marathon in general is 25.2 miles longer than my best race distance: the mile. But after the bombing, I thought if I were ever going to run Boston, this would be the reason. I was in the Marine Corps, which many people do not know, and these types of bombings happen overseas everyday. The Boston bombings happened in our backyard, and I want to show support for those who were injured or lost their lives.

A TRANSCENDENT SHOE

Brooks Transcend - Women

Brooks' goal is to provide the 'perfect ride for every stride.' Their shoes fall into one of two self-described categories: 'Float' or 'Feel.' 'Float' is a plush, cushioned, cloud-like experience. 'Feel' is a responsive, more 'in touch with the road' ride. The newly released **Brooks Transcend** falls into the former category and is meant to provide the "Ultimate Float Experience."

The Transcend has five features that set it apart:

- ❖ Super DNA
- . Guide Rails
- **☆** Ideal Pressure Zones
- **...** Ideal Heel
- Plush Upper

By using an enhanced blend of two cushioning technologies, BioMoGo and DNA, Brooks has created a material

they call **Super DNA**, their most advanced midsole foam yet. (BioMoGo is long-lasting, high-cushioning foam; DNA is a ground-breaking, patent pending cushioning material that responds to an individual's foot strike to provide a customized ride.) Super DNA provides 25% more cushioning than Brooks' standard BioMoGo DNA and smartly adapts to your stride.

The Transcend is the first shoe to incorporate Brooks' new **Guide Rail** technology. The Guide Rails are a denser form of Super DNA that form a cradle around your foot. The Guide Rails are reactive and adaptable, providing support and stability if you over-pronate, but remaining unengaged if you do not need them.



Brooks Transcend - Men

The **Ideal Heel** is rounded and shifted slightly forward to encourage an easy foot strike, a more aligned stride, and a smooth transition to the midfoot. A uniquely shaped outsole provides **Ideal Pressure Zones** that disperse forces evenly as your gait moves

from heel to midfoot to toe-off, making you as smooth as can be in your stride.

The **Plush Upper**utilizes the softest
suedes, meshes, and
foams in the collar and tongue of the
shoe to provide a velvety

feel. No-sew tunnels integrate the laces into the upper for a wrapped, glove-like fit that feels customized to your specific foot shape. Stitching is virtually eliminated from the upper, which dramatically reduces the potential for in-shoe irritation.

The Transcend is engineered to give you the maximum in cushioned luxury, the customization of adaptable support and stability, and the premium comfort of a tailored fit. The Transcend is meant to take your comfort to a higher level.



Join us on March 2nd for Brooks Super Sunday. The Transcend will be available for test wearing on the morning Fun Run.

THE SCIENCE OF SHEAT

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evaporate more quickly, and the evaporation of sweat from the skin is what cools you down on a hot day or during long periods of exertion.

The data showed that Bill and Ken each lost approximately 3.5 pounds during the sweat test. Dr. Godek determined that although Ken's sweat rate was slightly higher than Bill's, Bill's electrolyte loss was rated as "severe" while Ken's was rated as "significant" (one step better than "severe" on this rating

scale). In fact, Ken did not lose any potassium, which Dr. Godek said was not unusual. Potassium is not as readily lost in sweat because sweat is filtered blood plasma, and blood does not contain much potassium. This means that if a person's sweat glands reabsorb the potassium, a sweat test will show that no potassium was lost. Dr. Godek added that sodium and chloride are the more pertinent electrolytes to consider when hydrating during exercise. All of these factors were considered in the recommendations for fluid replenishment that were made to Bill and Ken by Dr. Godek.

Track spikes have arrived from Brooks, Saucony, ASICS, and New Balance.

HAVERFORD NATURE TRAIL AT HAVERFORD COLLEGE

370 W. Lancaster Ave., Haverford, PA (once on campus, follow signs for visitor's parking, 5.6 miles from The Running Place).

This 2.3-mile gravel and dirt trail borders Haverford College's campus and offers scenic and varied terrain with occasional rolling hills, wooded portions, and sections bordering athletic fields. Some of the wooded sections of the trail contain roots and rocks, so exercise caution. Runners, walkers, and dog walkers all frequent the trail, and cross-country skiers and snowshoers take advantage of the path during the snowy winter months. Although the loop is a relatively short distance, several circuits can be done to complete additional miles. The beauty of the path makes it a pleasant place to put in a short to middledistance run while avoiding pavement and vehicular traffic. The nearby Duck Pond can be incorporated into the loop of the Nature Trail for additional mileage and scenery.



HAVERFORD NATURE TRAIL AT HAVERFORD COLLEGE

The trail around Haverford's **Duck Pond** is between a quarter-mile and a half-mile long. This shaded path affords an opportunity to catch a glimpse of some of the many birds that make the Duck Pond their home, including ducks, geese, and herons. The path is flat, and because of its proximity to the pond, it tends to get muddy in wet weather.

MUCKFEST™ MS IN NEWTOWN SQUARE

MuckFest™ MS is a romp through mud and obstacles in support of a world free of multiple sclerosis. This 5k course features a gauntlet of muck-filled mazes, pits, and craters with over twenty gigantic steel obstacles. The fun continues after you slide over the finish line with live music, a 'little muckers' kidzone, and much more. To register for MuckFest™ MS, visit www.muckfestms.com.

Get mucky with friends: join our team! This year The Running Place is partnering with Brandywine Conference and Visitors Bureau of Media, PA to field a team in the 9:00 am wave on Sunday, June 1. Enjoy team camaraderie before, during, and after the race, and get a free team TRP T-shirt. Contact The Running Place for more information.

Bill and Ken said that they definitely plan to use their test results to adjust their fluid and electrolyte intake in their training. Bill often struggles when running in hot weather, likely because of his "severe" electrolyte loss, so he will especially consider electrolyte and fluid replenishment in warmer temperatures. Ken is planning on increasing his focus on hydration and electrolyte intake during his training runs leading up to the Boston Marathon to improve the quality of those runs and hopefully of his race day performance.

If you are curious about your own electrolyte loss and want

to undergo a sweat test, contact Mark Kotarski (www.ketfitness.com) to set up an appointment. Even for those who don't do the sweat test, knowing some of the science behind sweat rates and electrolyte loss can be helpful as a reminder to be mindful of their bodies and weather conditions when considering hydration and refueling during extended periods of exertion. For a runner, being aware of your body's needs during hard efforts is essential to keeping you safe, healthy, and running well.

What are you most looking forward to for the race? Bill: The Wellesley girls. Really, the spectators and ground support in gen

Bill: The Wellesley girls. Really, the spectators and crowd support in general, and having the entire course lined with people.



Ken: The crowds along the course and being able to tell people, "Yes, I have run Boston." Being a running shop owner, I am asked this a few times a year. I have been up to Boston a few times to support friends running, but to be the one running this time will be exciting.



What about the race are you dreading?

Bill: I'm not planning to race this one hard, so there's no dread.

Ken: Miles 20-26. I'm pretty sure the last .2 miles will be fine.

Do you have any sightseeing plans while you're in Boston?

Bill: I'd like to try and see a Red Sox game while we're there, as well as some of the historic sights along the Freedom Trail.

Ken: No sightseeing plans as of yet, but I'm supposed to meet up with some friends who live in the Boston area, and it will be nice to see them and catch up.

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SUPER SUNDAY

March 2nd, 2014

10 am · Fun Run

11 am - 4 pm · Store open

Join us for a morning run of 3-5 miles & post-run refreshments. Runners & walkers of all abilities are welcome.

Brooks reps will be on hand with the new Transcend for you to wear-test, and to answer your Brooks shoe questions.

Throughout the day, receive a free gift just for trying on Brooks gear. A purchase of Brooks gear enters you in our raffle to win a Brooks running outfit (T-shirt, shorts, and socks).

MONDAY NIGHT RUNS from The Running Place

Are you looking for running partners?

Join us on Monday nights for our weekly group run. All levels are welcome, whether you are following a walk/run program or winning races and age group awards. We leave from the store promptly at 6:45 p.m.

If you need even MORE motivation, on the first Monday of each month, we will treat all Monday night runners to PIZZA immediately following the run.

THE RUNNING PLACE

3548 West Chester Pike Newtown Square, PA 19073

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