

Freihofer's Training Challenge

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The Importance of Hydration

Hydration is a key factor to proper performance and health. It starts with the basics – water, just water. If you are not hydrated you will find you do not have the strength and energy you need. But more importantly, lack of water intake leads to dehydration. A study in the April 2010 Journal of Athletic Training demonstrated that runners who started a 12K race dehydrated on an 80°F day finished about two and a half minutes slower compared to when they ran it hydrated. You may not be running a major competitive race, but this demonstrates the profound effect hydration can have on your performance and how you feel. Dehydration causes your blood volume to drop, which lowers your body's ability to transfer heat and forces your heart to beat faster, making it difficult for your body to meet aerobic demands. Dehydrated muscles are more irritable, prone to increased occurrences of cramps and soreness. Dehydration leads to fatigue, headaches, digestive cramps, and an inability to cool the body. During warm periods there is increased risk of heat “stroke,” syncope (fainting), heat comas and death. Balance is important as too much fluid intake can “over hydrate” leading to fluid overload, sodium imbalance, increasing risk for cardiac events including heart failure and kidney overload. Sounds dangerous, but it's really rare. Runners almost never experience dehydration levels sufficient to cause major health consequences, but abnormal levels of dehydration will make you feel uncomfortable and cause you to slow down.

Basically, input should = output. Meaning the more you sweat, the more water you need. And if you sweat more than one hour with a prolonged aerobic workout, then you need electrolyte replacement as well! An easy tool to remember how much to have daily is this formula: $\frac{1}{2}$ of your weight in ounces a day, and on a training/running day + 8 ounces.

For example, if someone weighs 150bs then they would want to drink 75 oz. daily and add 8 ounces on a work out day for a daily total of 83oz.

Hydration starts long before for your run and it starts with water! This includes the day before, and you should drink up until the hour before your run. Drink 16 oz. of water one hour before and you can have another 4 oz. or so just before the run. You should have about 4 to 6 oz. of fluid for every 20 minutes of run. Runners with times greater than 8 minutes per mile should drink 8 oz. every 20 minutes. Runners who had an ice slushy ran about 10 minutes longer than when they had a cold drink. So a cold drink can make a difference. A colder drink lowered body temperature and perceived effort, allowing participants to exercise longer. Iced coffee and tea are fine, too.

Remember, if you run over 90 minutes you should have some type of electrolyte replacement. Sports drinks replace some of the sodium and other minerals that your body loses in sweat along with water. In addition, they provide an extra energy source for your working muscles in the form of carbohydrates.

Research has shown that sports drinks enhance performance significantly more than plain water in high-intensity and long-duration runs and races.

Ever wonder why your dog or cat likes to lick your legs when you come in? It's the salts! Sodium is excreted with sweat. For the purposes of a 5k run and a work-out less than one hour water, all you need is the basics. More than an hour and definitely more than 90 minutes will require electrolyte replacement. This means an electrolyte replacement, NOT an energy drink. I have a great recipe to make your own for only pennies (see below). Remember, basically you are replacing salts (sodium, potassium) and some sugar to avoid a crash. Popsicles, Jello, beef and chicken broth count as hydration and can be used before or after a run. Wherever there is a sodium molecule there is a water molecule, and this binding crosses over to your cells for function and metabolism. Electrolyte replacement drinks contain some sugar, sodium and potassium to replace what you have sweated out and re-boost some energy. Look for more natural sports drinks and when able buy organic and dye free. If it bright blue or pink that should be a warning sign- like a dangerous animal!

You need to monitor your hydration level and determine the best method and amount for you in your training runs. Pay attention to how much you need by monitoring thirst and urine color. Did you drink an 8oz, 16 or 32oz? Was your mouth dry when you ran or after? Simple measure- Is our mouth dry? If yes, then you need more water! The old (but reasonably accurate) saying is "drink to thirst." Let thirst be a guide. A not-so-pleasant measure to assess hydration is the color of your urine. Was your urine dark or pale yellow after your training? It should be the color of lemonade. Deeper orange/amber means you need more hydration. If you have clear or very pale urine you may need to reduce. On race day, do what you have trained to do and nothing new or special. Keep the same hydration approach and plan and feel what it's like to have a successful race.

If you are running 8 to 10 miles and over one hour - the process for hydration starts days before.

Simple sports drink recipe:

8oz water (not seltzer or Vichy)

2 TBSP lemon juice (potassium 30mg)

¼ tsp of salt (110mg sodium)

Flavoring or sugar or honey to taste or ¼ fruit juice

Water has hydrated man from the beginning of time. Make it your primary drink - everyday!

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