

STAYWELL

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Athletic Trainer Corner

Hydration and Performance

A few years ago, while coaching a team during the summer, the team played great in the first game, but in the second game it was like a totally different team showed up to play. The athletes were not processing well and at times during the game, flat out did some things that made no sense to the coaches and fans. The players acted as if they were in a fog. Later, as I processed the outcome and tried to figure out the problem, I questioned whether the athletes were hydrated when playing the second game. Upon meeting and talking with the team, it not only became clear they were not hydrated properly, but also the understanding of what being hydrated meant was unclear to them. Some of the athletes had not had anything to drink all day outside of the game and still thought they were hydrated. When we discussed urine output, one asked "What is urine?" Others indicated that they had not urinated, or urinated once in the morning. The game was played at 3 p.m. The athletes were severely dehydrated.

Research has shown that being dehydrated, by as little as 1 percent, can lead to a 5 percent decrease in mental function, afternoon fatigue, and an inability to focus. A greater percent of dehydration can lead to impaired memory and trouble solving solutions, all are criteria for an athletic event. Research confirms that if this occurs over a long period of time, brain cells reduce in size, and has the same effect on an athlete as if he/she were an elderly person with declining mental capacity.

Athletes should be well hydrated to perform their best. This also applies to industrial workers. The easiest way to tell when an individual is dehydrated or hydrated is the color of the person's urine. Urine should be light colored. When an individual is dehydrated his/her urine is dark yellow and has a strong odor. Since the brain is made up of 85 percent water it cannot function as it should when dehydrated. The recommended amount of fluid, before activity, is approximately 5 to 7 ml per kilogram of body weight. This should take place four hours before performing any physical activity (Swake et al. 2007).

If you or your kids need help with understanding the importance and how to stay well hydrated please contact Brian.



Sources: 1. <https://www.nasca.com/education/articles/kinetic-select/hydration-and-performance/>
2. <https://fayazneurosurgery.com/how-dehydration-affects-your-brain/#:~:text=A%202%25%20decrease%20in%20brain,have%20been%20dehydrated%20for%20years.&text=Lack%20of%20mental%20clarity%2C%20sometimes,to%20as%20E%280%9Cbrain%20fog.%E2%809D>

COMMON NUTRITION MYTHS

"Carbohydrates make you fat." Carbohydrates have been under attack for years and marketing has jumped on the band wagon giving them a bad rap. The truth is, yes, some carbohydrates are not healthy, for example, donuts, candy bars, etc. In general carbohydrates such as whole grains, fruits, and vegetables, are very healthy. In and of themselves, there is nothing in carbohydrates that makes a person fat. The problem is eating too many carbohydrates, which leads to consuming too many calories that causes weight gain. Consuming refined simple carbohydrates also leads to high calorie intake because of the high calories per serving. Multiple research studies, comparing low-carb diets to low-fat diets, have been done the past several years. In the first few months, those who followed the low-carb diets lost slightly more weight. After a year, or as much as three years, weight-loss differences between the two diets evened out.

"Eating at night causes more weight gain than eating during the day." Contrary to this common myth, it does not matter when you eat. A car whether filled at the end of a day, or the beginning of the day, does not burn more or less gas when driven. The body is the same. It is a well-designed engine that burns the same calories when active regardless of when the calories are consumed. This myth stems from the fact that eating late usually means extra calories and usually high calorie foods. As long as you do not eat too many calories, it doesn't matter what time you eat. Diets that promote no eating after a certain time at night are based on science of avoiding excess calories that lead to weight gain.

"I can't process certain foods, wheat, dairy, etc., so it causes me to gain weight." This theory is in fact, "illogical," says Marc Riedl, M.D., assistant professor of clinical immunology and allergy at UCLA. The inability to "process" foods he notes, "Would mean the foods are not metabolized and calories would not be absorbed." This would lead to weight loss, not gain.



"If a little is good then more is better." "Dietary supplements frequently cross this line and mislead consumers. "Mega dosing" is one of those myths consumers fell into, creating a boom in the vitamin and mineral market. Like anything else, vitamins and minerals can be toxic if taken in excess. After several years, long-term studies began to show that "mega dosing" was either completely inefficient, or could cause health problems.

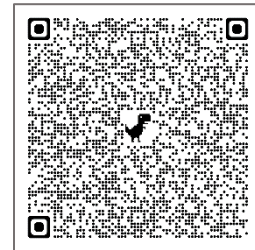
Source:

- http://www.eatingwell.com/nutrition_health/nutrition_news_information/e_13_biggest_nutrition_and_food_myths_busted?p
- <https://www.fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/dietary-supplement-labeling-guide-chapter-vi-claims#6-37>
- <https://health.usnews.com/wellness/food/articles/2018-04-27/6-myths-about-nutritional-supplements-you-must-know>
- <https://www.webmd.com/diet/features/diet-truth-myth-eating-night-causes-weight-gain>

Quarterly Wellness Initiatives

All Initiatives and challenges are open to employees and spouses. Forms are located at www.ipsc.com or outside Brian's office.

Current programs are also accessible by using the **QR code**.



New Program

- **Fun Walk May 15, 11:30-12:30. Onsite walk for spouses and employees, or walk at home. All participants will get a T-shirt.**
- **March Madness**—Re-focus on your emotional health. If you did not fill out a bracket, you can participate in the wellness activity to earn a gift card.
- **Double Dare**—Challenge yourself to do something new. Do two new things this quarter.
- **Decrease the Tension**—Re-Flexibility and hydration impact how we feel and our mood.
- **Eating for Health**—Different kinds of vegetables have a major impact on health and emotional well-being.
- **1-800-Sta-Well**—Exercise 800 minutes during the quarter. Bonus for 12 visits in the Staywell Center or IPSC outlying area exercise equipment



On Going-Repeatable Each Quarter:

- ✓ Spouse Staywell Letter incentive —
- ✓ Shoulder Protection Initiative —
- ✓ 100 Winks Sleep Initiative —
- ✓ Radon Test —
- ✓ Weight loss/Maintenance —
- ✓ Diabetes Prevention and BP/Cholesterol Improvement Initiative —
- ✓ Qtr. Prove IT Fitness Challenge —

