

Nutrition and Hydration Guidelines II

1. Cooking methods and preparation

Healthy eating is more than just choosing good foods. How they're prepared is also important. Some cooking methods are better than others for cutting fat, cholesterol and calories while enhancing the nutritional value of the food. Avoid cooking methods that add unhealthy fats (saturated and trans fats) or let food cook in its own fat. (Butter and lard pan frying are two examples)

I Boiling

Boiling is quick, easy, and all you need to add are water and a touch of salt. But the high temperatures and the large volume of water can dissolve and wash away water-soluble vitamins and 60 to 70 percent of minerals in some foods, especially certain vegetables.



II Steaming

Cooking anything from fresh veggies to fish fillets this way allows them to stew in their own juices and retain all their natural goodness. And no need for fat-laden additions to up the moisture. It's always good to add a little seasoning first, whether that's a sprinkle of salt or a squeeze of lemon juice.



III Roasting

Like baking, but typically at higher temperatures, roasting uses an oven's dry heat to cook the food. You can roast foods on a baking sheet or in a roasting pan. To maintain moisture, cook foods until they reach a safe internal temperature but don't overcook them.



IV Poaching

The same goes for boiling's cousin, poaching — no additives. Basically, poaching means cooking the given food in a small amount of hot water (just below boiling point). It takes slightly longer (which some experts believe can decrease nutrient retention), but is a great way to gently cook delicate foods like fish, eggs, or fruit.



V Grilling

In terms of getting maximum nutrition without sacrificing flavor, grilling is a great option. It requires minimal added fats and imparts a smoky flavor while keeping foods juicy and tender. While these are definitely healthy benefits, not everything about grilling is so good for you. Some research suggests that regularly consuming charred, well-done meat may increase risk of pancreatic cancer and breast cancer. Plus, toxins created meat cooked on high temperature cooking can induce to other diseases.



VI Braising

Braising involves browning the ingredient first in a pan on top of the stove, and then slowly cooking it partially covered with a small quantity of liquid, such as water or broth. In some recipes, the cooking liquid is used afterward to form a flavorful, nutrient-rich sauce.



VII Raw foods

Raw food diets have gained tons of attention recently, and for good reason. Many studies suggest there are multiple benefits of incorporating more raw foods into the diet: Studies have shown eating the rainbow (veggies, fruits, seeds and nuts from all different colors). Improves heart health, reduces risk of diabetes, promotes weight loss and may lead to a better digestion.



ACTIVITY 1

Prepare a meal at home with a cooking method from your choice. The best meal will be posted on Instagram. Here you can get some Ideas <http://www.eatingwell.com/recipes/>
Send the pictures to: barcaclbphotos@gmail.com

2. Nutrition timing strategies

The soccer player is involved in multiple practices and matches, therefore knowing the proper foods and eating timing it's relevant in order to achieve a good performance and recovery. As we know from the previous guidelines, Carbohydrates are the most important source of energy. We can identify two different type of Carbs, High glycemic index (fast absorption) and Low glycemic index (Low absorption). Both of them are necessary. However, it's very important to regard when is the best time to take each of both, on the following table will find some information about it:

Time slot	Meal	Food recommendation	Foods Choices
Night before	Dinner	The player will focus on the US dietary guidelines already provided. Regarding grains, (Carbohydrate intake) the player will consume between 0,5-2g x lb of bodyweight in order to replenish the glucogen stores since it's the most important source of energy for soccer. Besides, choosing a good source of protein.	
2h before match	Breakfast	The player has to restore glycogen stores in the liver after sleep. Yet, low fat and low fiber foods have to be chosen in order to facilitate digestion. Carbohydrate intake 0,5-1g x lb of bodyweight based mainly on fast absorption ones. (High glycemic Index Carbs)	
30 minutes before match and during half time		This meal is optional and should be based on small amounts of carbohydrates of rapid absorption or sports drink mouth rinses.	
Post-Match	Dinner	Your meal should have the proper amount of vegetables and fruits according to the US guidelines. When it comes to Carbs 1-2g x lb of BW should be taken preferably low glycemic index, if there's another match or training before 4h the amount should be 0,5-0,7 g x lb of BW. A good source of protein has to be chosen in order to repair muscle damage and enhance Carbs absorption.	

Hereunder there's a Glycemic index table in order to identify the different type of carbohydrates, thus knowing which ones to use with more relevance prior or after games and practices:

Glycemic Index

Low GI (<55), Medium GI (56-69) and High GI (70>)

Grains / Starchs		Vegetables		Fruits		Dairy		Proteins	
Rice Bran	27	Asparagus	15	Grapefruit	25	Low-Fat Yogurt	14	Peanuts	21
Bran Cereal	42	Broccoli	15	Apple	38	Plain Yogurt	14	Beans, Dried	40
Spaghetti	42	Celery	15	Peach	42	Whole Milk	27	Lentils	41
Corn, sweet	54	Cucumber	15	Orange	44	Soy Milk	30	Kidney Beans	41
Wild Rice	57	Lettuce	15	Grape	46	Fat-Free Milk	32	Split Peas	45
Sweet Potatoes	61	Peppers	15	Banana	54	Skim Milk	32	Lima Beans	46
White Rice	64	Spinach	15	Mango	56	Chocolate Milk	35	Chickpeas	47
Cous Cous	65	Tomatoes	15	Pineapple	66	Fruit Yogurt	36	Pinto Beans	55
Whole Wheat Bread	71	Chickpeas	33	Watermelon	72	Ice Cream	61	Black-Eyed Beans	59
Muesli	80	Cooked Carrots	39						
Baked Potatoes	85								
Oatmeal	87								
Taco Shells	97								
White Bread	100								
Bagel, White	103								



WHAT STRATEGY SHOULD WE USE WHEN THE PLAYER PRACTISES OR PLAYS A GAME BEFORE 4 HOURS FOLLOWING A MATCH/PRACTISE?

The player should have a high glycemic meal and maybe 1 or 2 little snacks containing HGI foods like: Pretzels, dates, raisins, rice crackers, fruit (watermelon), energy bars granola based.

3. Hydration timing strategies

The Soccer players need to be in hydrated in order to stay healthy. Moreover, being in a dehydrated state leads to poor performance and recovery from subsequent training events or matches. Proper hydration and electrolyte restorage have the following positive effects on our bodies:

- Maintain blood volume and osmolality to transport oxygen effectively and regulate blood pressure.
- Regulate body temperature by sweating.

- Enhance enzymes activity.
- Proper neural conduction for muscle function.
- Remove wastes and toxins.
- Important for replenishing energy stores (i.e., muscle glycogen) in recovery.

Isotonic drinks or sport drinks are an important source of hydration and recovery, especially after practices or matches and on tournaments or showcases.

It contains similar concentrations of salt and sugar as in the human body, that's why it's called isotonic.

And isotonic drink must contain electrolytes and at from 4-8% carbohydrate contain. An example would be Gatorade or Powerade.

It quickly replaces fluids lost through sweating and supplies a boost of carbohydrate.

On the following table we'll be able to know the amount, time and type of liquid is recommended for soccer players in order to achieve hydration states throughout the day and enhance recovery.

Time Slot	Liquid
Morning before match	Slowly drink 2,5-3,5ml/ lb BW water/electrolyte beverage at least 4hr prior to event If the individual does not produce urine, or the urine is dark or highly concentrated, he/she should slowly drink more beverage.
Warm up time	3-5 ml/lb BW (10-17oz) if the player is no euhydrated (regular state of hydration)
Half time	3-5 ml/lb BW (10-17oz) + 200-400 ml (6- 13) oz) of Isotonic beverage, E.C. Gatorade (If played more than 40' or simply sports drink mouth rinses.
Post match	After the match the overall sweat rate provided a great loss of water, hence it's crucial to drink between approximate 0,75-2l (25-67 oz) of water + Isotonic beverages high in sodium and other minerals for the rest of the day, preferably in the 4-6 hour gap after the match. Salty snacks, like pretzels are strongly recommended in moderated amounts.



URINE COLOR CHART



ARE YOU
HYDRATED?

4. References

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