



Nutrition and Recovery

Chargers Development Academy

“Give a man a fish and you feed him for a day; teach a man to fish and feed him for a lifetime.” -
Chinese Proverb

“When you do what you have done always, you will never reach any further.”
-Horst Wein

We will prepare you on the field...we need your help off the field with Nutrition and Hydration. What you eat and drink WILL influence how you play!

Understanding how your body works:

When you want to go from a walk or jog in a match to a sprint, your brain sends signals throughout your body to prepare the necessary parts to be able to execute this sprint as quickly as possible. All of this happens in a fraction of a second.

In order for the muscles to produce the required movement they need Adenosine Triphosphate or ATP. So your body breathes in oxygen, which goes into the blood. This oxygen filled blood then goes into the muscles which combine to burn fats and carbohydrate using them as energy = ATP.

ATP is needed to do ANY action. But more explosive actions need more ATP. More ATP means you need more blood, so your Heart Rate (HR) rises. More blood means you need more oxygen in the blood, so your breathing rate increases.

However, your HR and Breathing can't instantly go from 90 beats to 180 beats. So your body borrows extra ATP in order to go from a walk to a sprint. So where does this extra ATP come from? It is borrowed from the Phosphate System.

However, the Phosphate System isn't the only energy source for your body but it is the first!

There are 3 energy sources available within the body.

1- Phosphate is taken to make ATP. This is the fastest method, but can only last about 2-10 seconds before the system is empty. (Borrowing from Phosphate reserves- explosive movements)

2- Glycogen and Glucose become metabolized through glycolysis. This is fairly fast and with training and proper diet can last for a full match. (Stealing carbohydrates from the body)

3- Fats broken down aerobically in mitochondria of muscle. Slow process, but long supply.

A soccer player will sometimes use all 3 and the more time spent having to use method 3, since the other two are exhausted, will result in slower execution and more lactic acid build up in the muscle/fatigue! We want to AVOID method 3!

We will train the body to work to replenish the phosphate system as quickly as possible, as well as expand the phosphate reserves capability in order to enhance performance. However, even the fittest players in the world will exhaust their phosphate reserves throughout a match. The body then moves to method 2.

Using Carbohydrates from the body to produce energy: Through proper training and nutrition a player can go an entire match quite easily without exhausting this energy supply. However, research shows over 90% of youth players in the game today exhaust this supply in every match; which means they must use method 3, burning fat to produce energy.

While this might be good to keep your beach body slim, it is TERRIBLE for performance. It takes your body much longer to convert this energy, which results in slower decision making, slower execution and slow running. Therefore, an opposition player who is normally a worse player than you, if he is still using method 2 would most likely start to dominate you in the match.

I hope you are starting to see the negative effects of having to use method 3 to burn energy. So how can we prevent this from happening?

In simple language, if you have a proper High Carbohydrate diet you should rarely if ever go into method 3. If you have a low Carbohydrate diet, in every game you will most likely fall into method 3.

There's now over 40 plus years of scientific research and facts to back it up and link poor diet to poor performance and proper diet to improved performance. See the slides for just a snippet of these facts.

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Nutrition Plan

Long-term Nutrition Goals:

- To Fuel the body for optimum soccer performance.
- To maintain the body for 10 months of optimum soccer performance.

Short-term Nutrition Goals:

1. Carbohydrate stores must be fully stocked and your body must be fully hydrate before every training and match.
2. Carbohydrate levels must be maintained during matches and ideally training as well.
3. Carbohydrate levels must be restored within 60 minutes of every training and match for ideal body recovery.

Role Nutrition Plays:

You should now know the importance of Nutrition and its effect on performance. Quite simply without the correct fuel your body won't run properly. Athletes can NOT perform at their maximum without proper Nutrition. In addition, your body becomes highly susceptible to injury without proper nutrition and recovery of carbohydrate levels.

The ideal soccer players' diet would be comprised of:

65% Carbohydrates

20% Fats

15% Proteins

However, we must make sure we are eating good carbohydrates, fats and proteins; as well as, eating Fast and Slow absorbing Carbohydrates at the correct times.

- Low Glycemic Carbs= slow absorbing
 - Eat these 2-3 days before matches
 - Slow carbs= brown rice, oatmeal, whole grain bread, whole wheat pasta, sweet potatoes
- High Glycemic Carbs= fast absorbing
 - Eat these on day of matches and immediately after
 - Fast carbs= bananas, berries, fruits, energy bars, low-fat yogurt, chocolate milk, powerade

When preparing, the day of a match and match recovery meals such consist of carbs which are quickly digested so they are able to be used. Meals on the days leading up to matches should consist of carbs which are slowly digested so the carbohydrate storage will be stocked full in your body.

Within Carbs, Fats and Proteins there are good and bad choices. Here's a guide below for you:

Good Carbohydrates:

Breads & Grains	Starchy Vegetables	Fruits	Other Vegetables
Whole Wheat Pasta	Green Beans	Apples	Broccoli
Brown Rice	Peas	Bananas	Spinach
Whole grain bread	Black & Kidney Beans	Peaches	Mushrooms
Whole grain bagels	Carrots	Oranges	Tomatoes
Whole Wheat Tortillas	Corn	Grapes	
Cereals (unsweetened)	Potatoes		

Good Proteins:

Meats	Dairy	Snacks	Snacks
Fish	Milk (1/2% or low fat)	Dried Fruits	Crackers
Chicken Breast: skinless	Yogurt (low fat)	Pretzels	Yogurt (low fat)
Turkey	Cheese	Energy Bars	
Beef-85% lean +	Egg Whites	Cereal/Granola Bars	
Lean Ham		Trail Mix	
Tofu/Soy (Organic)		Nuts	
**Should NOT be fried		Fruit Juices (pure)	

Good Fats= Unsaturated Fats: Avocados, Olives, Nuts, Natural Peanut Butter (containing just peanuts and salt), Walnuts, Salmon, Coconut oil, extra virgin olive oil.

AVOID the following which are poor choices:

Carbohydrates: Biscuits, cinnamon rolls, coffee cakes, donuts, danish, chips, onion rings, french fries, anything cooked in butter, anything covered with creamy sauces, fried fruits, fruits canned in heavy syrup, fruit “drinks” with ADDED sugar and preservatives.

Proteins: Dark Meat Chicken, Poultry with skin, breaded meats, bacon, hot dogs, sausage, processed meats (bologna, salami, pepperoni), whole milk, whole eggs, butter, sour cream.

Snacks: Chips, Candy, Pastries, Cookies, High Fat muffins, Snack Cakes, Ice cream, Soda, limit snacks and anything with added sugar.

Bad Fats= Saturated Fats: Commercial-baked goods (cookies, crackers, cakes, muffins), packaged snacks (chips, candy), solid fats (stick margarine, vegetable shortening), Fried Foods (Fries, Fried Chicken, Chicken Nuggets, Breaded Fish, Hard taco shells), Pre-mixed products, Anything with “partially Hydrogenated Oil” listed in ingredients, SODA, Almost All fast foods & avoid extra sugar!

Nutrition Food Overview:

- Most of your diet should come from Carbohydrates. Make sure these are Good carbohydrates and eat the correct type at the correct time.
- Avoid Saturated Fats, stick with unsaturated fats.
- Eat lean protein. Meat should be skinless and NEVER fried.
- Avoid excessive red meat and processed meats.
- You should be eating REAL, NATURAL FOOD....NOT PROCESSED FAST FOOD!
- Try to eat vegetables raw as much as possible.

Now you know what to eat and why! How much should you eat?

- Soccer players should eat about 3-4 grams of carbs per pound each day.
-If you weigh 150 pounds= 450-600g of carbs per day.
-More on days leading up to matches or tough sessions.
-This might seem like a lot but..1 banana has 31g of carbs
- Soccer players should eat about 0.64 to 0.82 grams of protein per pound each day.
-If you weigh 150 pounds = 96-123g of protein per day.
- You will always eat enough Fats; since it's in everything...just make sure it's unsaturated fats!

Match Preparation

As we discussed early for the 2-3 days leading up to a match you should be eating slow absorbing carbs, such as whole wheat pasta/rice/potatoes with protein and veggies.

Match Day:

“Sport Meal”= Last meal before game

-Sport Meal should be 2-4 hours before the match, depending how quickly the player normally can digest food. This meal should consist mainly of cabs and with low fiber and protein. All the carbs should be Fast absorbing carbs.

-Example: Lean Chicken with raw veggies, yogurt, banana and fruits.

From 2 hours until warm up time= only easily digestible “carb snacks”

-Granola bars, Bananas

-No more to ensure blood sugar level is maintained

After warming up consume energy carb drink (powerade), drink about 0.6 liters of water mixed with powerade.

Once the match begins, Every 15 minutes throughout play, players should consume 0.3 liters of water mixed with powerade, so take advantage of any stoppages in play and halftime.

Recovery

Immediate carbohydrate intake must occur after the match:

- 100 g of carbs within 60 mins of the match
-25g of carbs per hour for the next 24 hours
- Be sure to avoid foods that are high in fat such as chips, snack cakes, and candy.
- Players should consume at least 22 g per pound of body weight in carbs over 24 hours following the match.

*******Ideal to drink fat-free/low fat Chocolate Milk immediately after match. Then after a brief time follow with a banana, low fat yogurt with berries, whole grain cereal and whole wheat toast. Powerade works in place of Chocolate milk, but lacks some of the protein in Chocolate Milk. No need for pricey recovery drinks.***

Your body's glycogen reserves are completely drained following a match.

- *The quicker you restore these levels, the faster your muscles recover.*
- If glycogen levels aren't replenished before next match or training, injury risks can increase from 40-70% depending on levels restored

Post-Match Warnings:

- What you eat and drink immediately after a match (or training) affects performance the next day and the rest of the week.
- Fatigue, celebration or frustration can discourage a player from focusing on post-match nutrition. Heat and humidity can also discourage athletes from eating.
- The easiest and most effective ways to ensure performance the next day is to eat and drink properly soon after exercise. Failing to do this can leave your body weak, tired and lethargic for the following training or game.

Hydration

If you aren't hydrated you will NOT perform well!

- Every day you should drink about 1 oz of water per body weight, 150lbs=150 ounces everyday
-This amount should be higher if the temperature is very high, adding another 30-70 ounces.
- Avoid gatorade or powerade until the time from the warm-up to post match on game days.
- Quick way to check, if the urine is clear you are at least close to hydrated.

Nutrition Simplified

- Carry a gallon jug with you at school. You should finish it every day by the end of school...this will get easy after a week or two.
- Eat only REAL, NATURAL foods...No Fast Food and Absolutely NO SODA! You are an elite athlete..eat like it.
- Your body needs Carbohydrates for energy, so fuel it with good carbohydrates!

Nutrition and Hydration is the Difference

The coaching staff will prepare you technically, tactically, mentally and physically...but if you don't prepare yourself nutritionally and with hydration you will still run out of energy quicker than your opponent. This means you lose or get subbed off!

You want to be a pro..act like a pro! Fuel your body for success!