



NUTRITION FOR SOCCER PLAYERS



The science of Nutrition

Our bodies create energy by breaking down the different components of food – carbohydrates, proteins and fat. The most important source of energy is carbohydrates. The energy made is stored in your muscles for when you exercise; this is called glycogen. Glycogen is the most important and valuable fuel for athletes: if you do not eat enough carbohydrates your glycogen levels will fall and your performance will be affected.

“.....quality training makes you play well; a vital part of quality training is good nutrition.....”

As a soccer player your diet doesn't just keep you healthy, it also meets the extra needs your body has due to the training you do. What you eat will affect your ability to train and how you recover between training sessions. A well balanced diet can give you that extra elite 'edge.' It is vital you get all the nutrients you need in the right proportions.

Carbohydrates

For all footballers, carbohydrates are the most important nutrient; they provide your body with the energy you need to play well, in the easiest possible way. Carbohydrates come in two forms – simple and complex. Complex carbohydrates provide the best source of energy for exercise, because the energy they give is released slowly throughout the day, and you should be eating plenty of them. Simple carbohydrates give you a quick energy burst, which can be useful but is very short-lived – eat them in small amounts. Your carbohydrate intake should be spread over the whole day and carbohydrates should make up just over half of the food on your dinner plate.

Complex Carb Food Sources	Simple Carb Food Sources
Rice	Sugar/jam/honey/chocolate spread
Breakfast cereals	Fruit (fresh, canned, dried & juice)
Pasta & Noodles	Chocolate & cereal bars
Pizza Bases	Sweets (jelly babies, jelly beans)
Potatoes	Cakes & buns
Crisp breads, oatcakes & rice cakes	Biscuits
Sweet corn & popcorn	Puddings
Beans (inc baked)	Yoghurts
Peas & lentils	Soft drinks & supermarket sports drinks

In a typical contest, soccer players run for a total of 10-11 kilometres at fairly modest speed, sprint for about 800-1200 metres, accelerate 40-60 different times, and change direction every five seconds or so. The alternating fast and slow running which they utilize can easily deplete their leg-muscle glycogen stores.

Research has shown that soccer players sometimes deplete 90 per cent of their muscle glycogen during a match, more than enough to heighten fatigue and dramatically reduce running speeds. As a result, many players BEGIN their competitions with glycogen levels which are sub-par. Players who start a match with low glycogen usually have little carbohydrate left in their muscles by the time the second half starts.

Glycogen-poor soccer players usually run more slowly - sometimes by as much as 50 percent - during the second halves of matches, compared to the first. A soccer player analysis study showed that drinking a glucose solution before games and at half-times led to a 30-per cent increase in the amount of distance covered at high speed during the second half of a match.

The more carbohydrates an athlete eats, the more endurance he or she will have. This means that when the end of the game approaches, the player will be able to run faster and longer if he or she consumed the proper amount of carbohydrates.

Protein

Protein is needed by your body for maintenance and growth of body tissue; it also plays an important role in replacement of body tissue in the event of injury or ill health. For these reasons eating the right amount of protein in your diet is very important. Try to ensure your protein is lean and low in fat. Think about your cooking methods with regards to protein: choose grilling and baking and avoid fried foods. Protein can be found in foods such as meat, fish, peas, beans and dairy products i.e. cheese, eggs.

The combination of protein and carbohydrates together has been proved to be the best way to refuel the body, so it can restore the levels of glycogen within the muscles. The **VEROFIT Isotonic Drink** has been specifically formulated to meet these essential requirements.

Fat

High fat diets aren't good for anyone; by choosing to eat high fat foods (especially in snack form) you will often reduce your carbohydrate intake. For athletes and active people a fat intake of 15-30% within a balanced diet is all that is needed, sadly for most of us it's nearer 35-36%. When choosing what fatty foods to eat, try to put more emphasis on Omega-3 fatty acids: nuts, seeds and nut based oils, cod liver oil, broccoli and 1-2 portions of oily fish (e.g. mackerel, herring and salmon) per week. Omega-3 fatty acids enhance the oxygen delivery to cells; this improves aerobic metabolism which results in increased energy levels and stamina in training and game situations.

Fruit and Veg

You should aim to eat 5 portions of fruit and vegetables per day. Remember frozen vegetables count, and a 150ml glass of fresh fruit juice (not concentrate) at breakfast counts as one portion too! Follow the one-third rule: vegetables should fill at least one third of your plate. This way you will not only satisfy your hunger but get lots of the nutrients you need. Soccer players who gain their nutrients naturally (not in vitamin/ mineral supplements) have greater physical and mental development.

Fluid

“.....If you allow your body to dehydrate by only 2%, you will have 10-20% deterioration in your ability, co-ordination, concentration and stamina.”

Keeping yourself well hydrated is vital to your performance, whether in training or competitions. If you allow your body to dehydrate by only 2%, you will have 10-20% deterioration in your ability, co-ordination, concentration and stamina. Not only do you sweat when training or playing, it is made worse by being in a hot, humid environment: these conditions can lead very easily to dehydration. As you are losing fluid/water all the time you must replace it. It is important that you drink plenty before you start training or competing. Whilst training have a drink easily accessible and take regular sips. Don't use it as an excuse to stop training – drink during your rest or when your coach calls you in for a chat!! When you have finished training you need to drink even more.

Being thirsty is a poor sign of dehydration – by the time you feel thirsty your body is already dehydrated. In fact, the human thirst mechanism doesn't even kick in until a person has lost about two percent of body weight from sweating. At this level, a decrease in performance begins to become evident.

So don't wait until you are thirsty to drink – it's too late by then. The best drink to re-hydrate your body is an isotonic drink: such as **VEROFIT Isotonic Drink**.

In all circumstances you must avoid fizzy/carbonated drinks which are full of sugar or caffeine (e.g. Lucozade Energy Drink, Coca Cola or Red Bull). These fizzy drinks can cause bloating which stops you drinking enough; caffeine in them will cause you to dehydrate; and those full of sugar give an initial rush followed quickly by a huge drop in sugar levels. Be aware - young athletes are more sensitive to the effects of dehydration.

Various studies have shown that soccer players lose - through their sweat glands - from two to five litres of fluid per game. Try having 400-600ml of water 2 hours before a game, then 300-400ml of sports drink about 10-15 minutes before a match begins. (The warmer the weather, the more water you should drink.) Players should drink before starting the game, every 15-20 minutes during play if possible, and at halftime. Make sure the team has drink bottles along both sidelines and in the goals so players have easy access to fluids during stoppages of play.



Nutrition Advice for Game day

The food and drink that you have before a game will have a huge impact on how well you perform; it may well give you that winning edge. The most critical meal is actually the day BEFORE the game. It should be plentiful with good carbohydrates, as well as a little protein and fat.

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The Night before the Game

It is important that the night before the game you refuel your body's supply of glycogen by eating a meal high in carbohydrate (e.g. pasta, jacket potato, baked beans on toast). It is vital that you drink plenty, so you are well hydrated. Ensure these drinks are not fizzy or caffeine-based and, for the older players, beware of drinking alcohol the night before competing as it will dehydrate you and its effects on your body's hydration levels will continue for 36 hours. Rest is the other vital ingredient - so don't forget an early night.

The Morning of the Game

After your wonderful night's rest you will have fasted for eight hours or more and therefore breakfast is vital to avoid depleted glycogen stores and an increased risk of fatigue. Cereals are high in carbohydrate. If playing in the afternoon, make sure you have a carbohydrate rich lunch; however, your final meal before a game should be finished at least two hours before the start of the game. It is important that your body has had time to digest properly and the rate of digestion can be affected by pre-game nerves. If you are still hungry or low in energy nearer to game time try a specifically formulated energy bar such as **Shotz Energy Bar** which will provide essential fuel and energy for your game that is easy on the stomach.

Throughout the day leading up to your game, you should be drinking regularly, preferably isotonic drinks and plain water as you get closer to your game start time. A good way to judge if you are well hydrated is by the colour of your urine (wee), you want it to be a very pale yellow. Darker urine shows signs of dehydration and if the quantity of urine is small it means you are dehydrated.

An excellent strategy is to drink about 300-400ml of sports drink, which usually provides about 30 grams of carbohydrate, 10-15 minutes before a match begins. The same amount should be consumed at half-time,

Soccer players should also eat a small meal containing at least 600 calories of carbohydrate about two hours before competition. 600 calories is the approximate amount of carbohydrate in three bananas and four slices of bread (eaten together).

There are some foods (and drinks) you should definitely avoid right before a game, or before any intense physical activity. For one thing, stay away from super-sweet and high-fat foods like they're the plague. Whole milk, marbled meat, cheese, and anything fried will seriously jeopardize your game. So will havoc-wreaking foods like beans, pickled cucumbers, and spices. They'll slow digestion down and could cause cramps, gas, and associated discomfort. Your body will be torn between digestion and performance.

During the Game

It is very important that once you have finished the game you have a drink. A good way to help replace your fluid levels and boost your carbohydrate levels is to drink an isotonic sports drink such as **VEROFIT Isotonic Drink**. The carbohydrate within the drink will help to replenish the glycogen levels within the muscles.

Whilst at a game or tournament, drinking should be your major source of boosting your body's energy. If you have a few hours between games, you may choose to have some small snacks but be careful what you choose. Sugary snacks will give your body a huge surge of sugar, your body will produce insulin (a natural hormone made in our bodies) and then the sugar levels will rapidly fall - to below the level they were at when you first had the snack!!! You will then feel tired and sluggish and your performance will deteriorate. Don't fall into the trap of thinking that crisps will be a good source of carbohydrate: due to the fat content in crisps, the carbohydrate is absorbed at a much slower rate. This slower digestion will divert the blood supply from the muscles to the stomach to assist the digestion process. For this reason also, bananas, which are slow to digest, are better eaten earlier in day than during the competition.

Athletes often consume Carbohydrate rich energy gels during these times such as the **Carbo Shotz Gels**. These are specifically formulated and measured to replenish essential carbohydrates. You should always consume 200ml of water with these gels.

..... soccer players sometimes deplete 90 per cent of their muscle glycogen during a match

Some other good ideas for snacks are: isotonic drinks, raisins, apples, grapes, dried fruit, fruit smoothie drinks, fruit bars, rice cakes with jam, cereal bars and Rice Krispie Square Bars.

After the Game

It is very important to restore the glycogen levels in your muscles after a game, especially if you will be playing or training the next day. There is a window of opportunity to replace these carbohydrates within the body - it occurs within thirty minutes of the end of the game.

Try to consume one of the following which provide 50 grams of carbohydrate: 2-3 medium pieces of fruit; 1 round of honey or jam sandwiches; 2 bananas; 2 cereal bars. Within two hours of eating one of the above it is important to have a carbohydrate rich meal (e.g. pasta, noodles, thick based pizza or baked potatoes). Avoid foods high in fat content as they will delay the refuelling process of glycogen within the muscles.

Once again, you need to make sure that you drink plenty after all the hard work you put into the game. You should drink 500ml of water or even better an Isotonic sports drink immediately after you have finished activity for the day and continue to drink at regular intervals after that to ensure you have replaced your fluid loss. For the older players remember it's very important to re-hydrate yourself before indulging in a celebratory drink!

If you are not able to quickly access a wholesome meal as prescribed above, ready prepared sports recovery drinks such as **MegaFuel Recovery Drink** will provide all the necessary ingredients to restore and replenish those lost carbohydrates, minerals and vitamins in a yummy strawberry or chocolate flavoured smoothie.

At games and tournaments around the country, players will sometimes eat the worst post game snacks possible including soda, sweet drinks in soft packaging, potato chips, candy bars and fries. Muscles are most ready to receive a fresh supply of fuel during the first hour or two directly following exercise. The smart coaches and parents supply food that will start refilling muscles with carbohydrates at just that time.

One place protein isn't commonly found is the immediate post-exercise meal. A little protein helps in storing new fuel in the muscles faster than when there is no protein. Players can try to figure out a protein source after the game or drink a carbohydrate replenishment drink that contains protein. **Verofit Isotonic Sports Drink** has an ideal blend of carbohydrates, protein, vitamins and minerals to ensure your body is replenished and ready for your next game.



Summary

Sugar as a fuel is like a firework - big bang (energy) and then nothing soon after. Carbohydrates are similar to coal, burning slowly (energy) but constantly over a longer period of time. So the pasta you eat the night before a game will have a much greater and longer effect than a chocolate bar on the day!! Think also about when you eat 'slow to digest' carbohydrates (e.g. bananas): they are fantastic as part of your breakfast on the day of competition, or at least 3 hours before a game to gain maximum benefit.

All of the information here can be adapted into your pre-, during and post-training situations. Remember, if your aim is to achieve the best possible results in training and competitive situations you need to be fuelling the body with good quality and appropriate food and drinks.

..... dehydration results in a 3-5% drop in body weight and 8-10% drop in performance