

# **SOCCER RECOVERY & NUTRITION**

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**Pro Players cooling down**

We will examine the nutritional aspects of recovery, focusing on post-game techniques that help speed up recovery. One of the most over-looked areas in soccer, is what players do away from the training ground, in terms of their nutritional program & choice of post-workout activity.

## **RECOVERY NUTRITION**

Post workout nutritional recovery is an area that has just recently taken center stage as being vital to get players ready for the next game, which for many pro's is in a few days time. It's essential that players eat at the correct time both prior to & post game & in the right proportions. Consider the actual workout or game you have just completed & use a suitable nutritional plan. If it was a strength session, a movement/aerobic session, a speed & agility, or a hybrid of the any of these, by knowing how metabolically hard you just trained, will dictate the amount of one macronutrient you eat relative to another, specifically your carbohydrate to protein ratio.

- > A **Strength & Power** training, requires a post-workout intake of 2:1 carbohydrates to proteins. This type of ratio is essential for any circuit training type work.
- > A **Movement or Cardio** session, requires a post-workout intake of 4:1 carbohydrates to proteins ratio.
- > A **Speed & Agility** session requires a post-workout intake 2:1 carbohydrates to proteins. Especially the plyometric & explosive power training.

It is important to know exactly what types of foods to put into your body. Also you require foods that are easily digestible & will be delivered to your muscle cells quickly, meaning that when looking at carbohydrates, simple, fast digesting sugars are better. Glucose would be your number one choice because glucose is already in a form that is usable by the body. On the other hand, fructose (a sugar found in fruits) takes longer to be absorbed by the muscle cells because it has to first travel to the liver, for conversion into glucose. The reason you want such fast digesting carbohydrates is because the faster your carbs are digested, the faster your insulin levels will spike. This will allow the glucose to enter the muscle cell, replenishing glycogen stores & allowing you to recover faster from your workout. A faster recovery from previous workouts enables you to work out harder the next time you train. The same rules apply to protein, the fastest digesting protein is whey, with casein as the slowest digesting protein. What is different about post-workout protein consumption is that you don't want purely fast digesting protein. You want a mix of whey & casein protein. Once again, the ratio of the two will depend on the workout you just completed.

**Following strength & power workouts, you need a 50/50 mix.** First, the whey protein will be digested & absorbed by the muscles quickly to start the rebuilding process. The sooner your muscles can start rebuilding, the sooner they can be put to work again. Then the casein takes up to 7 hours to digest. This will give your muscles a slow drip of amino acids throughout the day & aids in the recovery and rebuilding of muscle tissue.

**Following movement & cardio workouts, you want a 75/25 mix.** Just mix your whey protein shake in 8–12oz of milk because casein makes up approximately 80% of the protein found in milk.

**Timing** of when to eat post-game or workout is vital to proper recovery. Essentially, the sooner you can eat your post-workout nutrition, the more effective it will be. There are a couple of time windows you should keep in mind.

**The 1st window is 30/45 minutes post-workout.** Once 30/45 minutes has elapsed since the end of your workout, the effectiveness of your post-workout nutrition in aiding recovery drops off dramatically.

**The 2nd window is two hours post-workout.** After a two-hour period from the end of your workout, any advantage that nutrition could have given you in terms of recovering for your next workout is basically gone. It is because of these two time windows that having the fastest digesting macronutrients available to your body is so crucial. I recommend taking your post-workout nutrition with you to the gym instead of waiting until you get home, which may be too late.

The 3rd macronutrient is fat, specifically polyunsaturated fats, which contain omega-3 fatty acids, which act as a natural anti-inflammatory. These can be found in high quantities in foods such as fish & walnuts. Take care when dealing with fats because they slow down the digestion of everything else. So although the omega-3 content found in these foods will allow you to recover from your workout quicker by reducing inflammation, don't recommend taking in fats along with your carbohydrates & proteins. Ideally, wait for 30 minutes after your post-

workout carbs & proteins to take in some form of omega-3's. Although this would put your fat intake outside of the 30-minute window, replenishing glycogen stores & providing amino acids for the muscle takes precedence over the anti-inflammatory effect of omega-3 fatty acids. The easiest ways of ingesting omega-3's are fish oil tablets or whole ground flaxseed which can be mixed in with yogurt, cereal, oatmeal & shakes. Recommended post-workout dosages for omega-3's have yet to be established.

You also need to make sure that you rehydrate after every workout so that your body continues to function properly between workouts, which will allow you to work out harder the next time you train. A simple way to figure out how much water you need post-workout is to weigh yourself before you begin your training and then again after your training session has concluded. Every lb lost in the workout = drink 16oz of water post workout. You should also keep hydrating during your workout.

Many players drink Gatorade post-workout, as a way to rehydrate, but here is the problem. Unless you've been training hard for more than 90 minutes, you really don't need Gatorade. Although, a good source of the simple sugars that you want post-workout, it also has a very high fructose content, which takes longer to digest. The best time to drink Gatorade would be during your workout, if it lasts 60-90 minutes. This would be to replenish the glycogen stores, sodium & potassium lost during your workout, so you can continue to train at a high intensity, all the way through the session. If you're looking to replace electrolytes, Pedialyte is a better option than Gatorade. Pedialyte Freeze Pops are portable solutions to the electrolyte deficiencies you may encounter during or after a workout. Pedialyte contains 1.5gms sugar + 211mg sodium + 94mg potassium + 6 cals per 2.1oz. Gatorade contains 34gms sugar + 275mg sodium + 75mg potassium – 125 cals per 20oz. Pedialyte Freeze Pops give you more potent electrolyte replacement with only 4% of the sugar content.

**Ron's Final Thoughts:** When considering your post-workout drink/meal, remember that timing is everything. Not only do you need to eat foods that are fast digesting, but you also have to eat them as soon as possible after your workout. Eating the right amounts of these foods, as well as drinking proper amounts of fluids to rehydrate will not only allow you to recover more quickly, but allow you to work out harder the next time you train or play. It will also ensure that you're getting everything out of your training that you're putting into it. I have found that **FRS** (online or at GNC or Walgreens) makes me feel energetic both pre & during a tough metabolic workout. I prefer the concentrate rather & enjoy the chews, to give an extra boost during a workout. I train several adults who also feel this is a good solution to staying energetic. I recommend either **light muscle milk or protein** drinks (both from Costco) immediately post workout/game. Have them in a cooler in the car ready for the trip back home.