

PROTEIN TIMING for SOCCER PLAYERS

Overview

The daily amount & type of protein are important to the body's response to muscle & overall performance goals; however another key factor is when to consume protein. Whether you are interested in gaining muscle or enhancing muscle recovery, the relationship with protein lasts 24 hours or more, not just immediately after training. Let's start by looking at the bigger picture & then look at protein ingestion closer to exercise. Energy needs for training are best met by consuming quality carbohydrates & healthy fats, which allows protein to be most effective in small frequent feedings. Optimal metabolism of protein occurs when fed in smaller doses, such as 10-40 grams per feeding. There seems to be a cap on how much the muscles/body will use at one time, thus more is not better. Ideally, 4-6 protein feedings per day is optimal, allowing a continuous flow of amino acids to support muscle tissue growth, enzymes, hormones, antibodies, fluid & electrolyte balance & acid-base balance.

Besides providing the most protein bang for your buck with this timing strategy – it will also support body composition & weight loss. Protein helps tame the surge of sugar that causes insulin spikes, ending in sugar lows or crashes. This roller coaster ride is well known to promote fat storage by altering the fat burning process, as well as enhance inflammation. Quercetin is being studied in humans for its potential to slow this sugar ride due to its positive effects on glucose metabolism? Protein also enhances satiety (lowers appetite) & costs more in energy (calories) to breakdown during metabolism. It is very thermogenic, thus it can help stoke the metabolic fire throughout the day.

Protein for breakfast

In the typical American breakfast, protein is usually low or accompanied with foods high in saturated fat. Start the day with some lean protein, here are a few morning meals my athletes like:

35-40 gm protein: 1 c (cld) Organic Oats + 1 TB peanut butter + sliced banana.

Optional: add dark cocoa powder. 1 c. water + FRS Healthy Protein

30-35 gm protein 1-2 eggs +1 veggie sausage + sautéed spinach in olive oil + 1 cheese wedge. Optional: Blueberries. 1 c. 1% milk + FRS Healthy Energy

20-25 gm protein: 6 oz. Greek Yogurt + cherries + ½-1 oz pumpkin seeds.

Optional: 1 c. water. + FRS Healthy Energy

Daily Protein Plan

Stay hydrated – kidneys require water to metabolize protein & muscle requires water to function (75% water by weight). Divide total protein needs into 4-6 feedings per day. This amount can be adjusted per training demands & weight management goals.

Be Positive!

Want to gain muscle or enhance muscle recovery? Then you need to stay positive – protein intake before or after exercise clearly results in positive muscle

protein balance. So how much is needed to stimulate a positive response surrounding exercise? Somewhere in the ballpark of 10-25 grams of whey protein. Taken along with carbohydrates, 30-60 minutes before or 15-60 minutes after exercise, one can optimize glycogen reloading & muscle repair. Speedy recovery is a performance edge for many sports. When training demands are high or when training sessions are close together (same day or < 8 hrs), a fast rate of recovery will give you that edge. The muscle building/repair process starts right after exercise, making whey protein an ideal tool. Whey protein empties from the stomach & is absorbed into the bloodstream from the intestines faster than other protein sources. The perfect time for FRS Healthy Protein which provides 25 grams of whey protein isolate.

Timing	Athlete	Protein Type
Before Exercise: 30-60 minutes	Endurance: 10-25 gm Strength: 20-40 gm	Fast acting protein (whey) to stimulate muscle adaptation gains.
During Exercise: per hour	5-15 gm (optional)	Research is mixed on benefits for performance. ^{3, 4} Individual choice based on tolerance (taste, gut). Use whey.
Recovery: 15-60 minutes Repeat every 2-3 hrs until normal meal pattern resumes.	Endurance: 10-25 gm Strength: 20-40 gm	Fast acting protein (whey) to stimulate muscle adaptation gains. Slow acting (casein) to minimize muscle damage.

Night Time Recovery (casein) Options

Another timing benefit of protein is at night. When your training sessions are intense or long causing a great deal of muscle damage, casein protein helps minimize the damage while you sleep. Due to its slow rate of digestion, casein releases amino acids into the bloodstream over a period of 7 hours. This makes casein an ideal bedtime snack. Examples: Cottage cheese & Fruit →Greek Yogurt – add honey & Nuts/Seeds →Cheese & Crackers →Milk & Graham Crackers