

Thomas Rongen is currently Sporting Director for Club Deportivo Chivas USA of the MLS. He has a wealth of knowledge garnered from a career at the highest levels of the game including stints with several MLS teams as well as being part of the US National Team setup for several years. Rongen, enjoyed a successful playing career in Holland and had the honor of representing his native country (Holland) in international competition. After leaving the Netherlands he had a successful playing career in the North American Soccer League. Rongen coached Tampa Bay during the inaugural (1996) MLS season, then coached two seasons in New England before taking over for Bruce Arena at D.C. United in 1999. He won the MLS title that year and coached D.C. for two more seasons. Most recently he held the position of US U20 National Team coach.

Coaching Nutrition

According to a study presented recently at a meeting of the American College of Sports Medicine, coaches are the number one source of nutrition information among young athletes. I honestly don't know whether this is a good thing or a bad thing. But since it is the reality, I think it's very important that soccer coaches offer their players some basic nutritional guidance, because we can't count on their getting it anywhere else. And, of course, it is equally important that the guidance we do provide be accurate, relevant, and practical.

The nutrition habits of many youth soccer players are poor. This is true even of the players I coached on the U-20 National Team. They may be a lot more talented than the average player, and perhaps more motivated, but they are just as likely to live on potato chips and soda as the next kid.

Because youth soccer coaches don't feed their players, there's only so much we can do to improve their nutrition habits. I gladly talk about nutrition with parents who express an interest and I'm certain that some of my players pass along the information they learn from me to their mothers and fathers. But I'm wary of stepping on parents' toes, so I focus mainly on influencing what players eat and drink before, during, and after practices and games. And you can do quite a lot to improve players' fitness, performance, and recovery by teaching them to take in the right nutrients in the right amounts at these times.

Start with a Full Tank:

Preventing fatigue starts with the pre-exercise meal. The job of the pre-exercise meal is to make sure the player's body is well stocked with fluid and carbohydrate before each practice and game. The meal should be mainly carbohydrate with a little protein and little or no fat. A breakfast of low-sugar, whole-grain cereal, low-fat milk, and orange juice eaten at least two hours beforehand is perfect.

Low- and moderate-glycemic carbohydrate sources such as whole grain cereals are preferable to high-glycemic carbohydrate sources like donuts because they provide more lasting energy. In a Penn State University study, one group of athletes ate a rolled oats cereal (moderate-glycemic) while another group ate a puffed rice cereal (high-glycemic) before a stationary cycling test. Both

breakfasts contained 75 grams of total carbohydrate. Those who ate the rolled oats cereal were able to cycle significantly longer than those who ate the puffed rice due to greater glucose availability.

Along with sugary foods, foods that are high in fat, such as whole milk, should be avoided in pre-exercise meals because they slow digestion. The other important consideration is timing. The ideal is to eat a complete meal about three hours before exercise. Eating less and/or earlier could result in low energy reserves by practice or game time. Eating later could result in nausea or cramping.

Water Is Not Enough:

Most youth soccer players drink only water during games and practices. By drinking water during exercise, players can keep their body temperature from rising and can play harder and longer than if they drink nothing. But, sports drinks are a better choice than water because they contain essential nutrients for muscle performance that water does not have.

Certain minerals called electrolytes are lost in sweat along with water. These minerals play an important role in assisting muscle contractions and in many other functions related to athletic performance. Studies have shown that players who drink a sports drink with electrolytes such as sodium and potassium can delay fatigue longer and are less likely to get muscle cramps than players who drink plain water.

However, neither water nor electrolytes provide energy. In a high-intensity sport like soccer, most of a player's energy comes from carbohydrate stored in the muscles and liver. This fuel supply can run out fairly quickly, leaving the athlete exhausted and unable to perform well. But by drinking a sports drink like Gatorade that contains carbohydrate energy, as well as electrolytes, players can conserve their muscle energy stores and prolong endurance.

Traditional sports drinks do not contain any protein, but some of the newer sports drinks do. This is because new research coming out of leading universities has shown that a sports drink that contains carbohydrate and protein in the right balance can delay fatigue even longer than a sports drink with carbohydrate and no protein. In one study, athletes who used a carbohydrate-protein sports drink (Accelerade) during exercise lasted an amazing 24 percent longer than athletes who used a regular carbohydrate sports drink with no protein. The added protein also helps the muscles repair themselves faster after exercise, as it is normal for muscles to experience a certain amount of damage during hard exercise.

Better Recovery:

After exercise, athletes need more of the same nutrients they need during exercise. They need more water and electrolytes to replace the body fluid they lost during the practice or game. They also need more carbohydrate to restock their muscles, because it's not possible to replace carbohydrate as fast as it is burned during exercise. And they need more protein, too, in order to repair the muscle damage that occurs during intense exercise. And they need to get all of these nutrients as soon as possible after the practice or game is completed.

Research has shown that athletes who take in these nutrients immediately after a hard workout recover much faster and perform better in their next workout than athletes who wait or who eat foods that are high in fat, which slows the uptake of carbohydrate and protein.

The simplest way to kick-start the recovery process is to have your players continue drinking a sports drink with protein. Fruit, sandwiches, and low-fat energy bars are also good recovery foods. Players should avoid eating high-fat foods after exercise because fat slows the deliver of other nutrients to the blood and muscles.

Nutrition plays a very important role in sports performance and recovery. Most youth players understand this, but they don't often know what and when they should eat and drink and their actual nutrition habits are typically far from the ideal. Coaches are in a good position to educate their players about proper sports nutrition and change their habits for the better. It's worth making the effort.

Nutrition Guidelines for Your Young Athlete:

	Good Choices	Bad Choices
Before Practice and Games	Wholegrain cereal, sandwich, fruit, energy bar, sports drink, water	Eggs, whole milk, beans, soda, snack chips
During Practice and Games	Sports drink (with protein)	Fruit juice, any solid food
After Practice and Games	Sports drink (with protein), fruit, energy bar	Snack chips, fast food, soda