

NUTRITIONⁱ

Eating before exercise is critical to optimize energy levels on the playing field. The following points are keys to young soccer players to promote optimal performance.

The Perfect Training Diet for Soccer Players

As a coach, parent, or athlete, you have to have enough information about food and nutrition to create a good training diet. The training diet is the foundation for feeling on top of your game during practice or during a game. In fact, many research studies have shown that eating great before a game does not provide as many performance benefits as eating great Monday through Thursday for practice. How much energy a player has at practice determines how much work can be done on the playing field or in a weight room. If inadequate carbohydrate is in the diet, glycogen levels - the storage form of carbohydrate - will be low and energy levels will be low. But, on the other hand, if glycogen levels are high because of good food selection and appropriate timing of meals, energy reserve levels will increase.



Key Principles to a Good Training Diet

Carbohydrate is the major nutrient that fuels the working muscle cell in the game of soccer. THE ENERGY NUTRIENT! The diet should be high in carbohydrate-rich foods. Protein is THE HEALING AND RECOVERY NUTRIENT! Although important for growth, formation of red blood cells, and hormones, protein is not the key energy nutrient. The diet should include a moderate amount of protein rich foods. Fat is the second ENERGY NUTRIENT. The muscle cell uses fat as a secondary energy source. The diet should be moderately low in fat.

What Should You Eat Before Working Out?

The two key nutrients important before exercise are water and carbohydrate. Examples of carbohydrate-rich foods that can easily be eaten as an early morning, mid-morning, afternoon, or early evening pre-exercise meal include:

Eating carbohydrate-rich foods prior to exercise will:

1. Raise blood sugar
2. Protect glycogen stores
3. Provide an immediate form of easy, accessible fuel

Without carbohydrate prior to workouts:

1. Lower blood sugar (hypoglycemia) would cause early onset fatigue during training or competition
2. You begin to breakdown important body tissues, such as muscle, instead of building it up

Morning meal ideas or anytime snacks

- 2 pieces of toast with jelly or honey (30 grams carbohydrates)
- 1 bagel with jelly or honey (32 grams carbohydrates)
- 1 chocolate granola bar (20 grams carbohydrates)
- 1 cup oatmeal, 1/2 cup skim milk (32 grams carbohydrates)
- 2 cups cold cereal, 1 cup skim milk (44 grams carbohydrates)
- 1 cup orange juice (26 grams carbohydrates)
- 1 cup applesauce (60 gram carbohydrates)
- 1 medium banana (26 grams carbohydrates)

1 cup cooked rice mixed with 1 cup vanilla yogurt (36 grams carbohydrates)

Afternoon meal model or anytime snacks:

Sandwich with high protein filling (meat, cheese, fish, egg salad)

Salad, fruit or vegetable

Cooked vegetables (broccoli, carrots, etc), one piece of fruit

Beverage: milk (soy or regular), juice, sports drink

Evening meal model or anytime snacks

Chicken, turkey, beef, fish - 4-6 oz (size of the palm of an adult's hand)

2-3 cups of a high carbohydrate food /starchy food (rice, pasta, potatoes, corn, peas), can also include breads and cereals

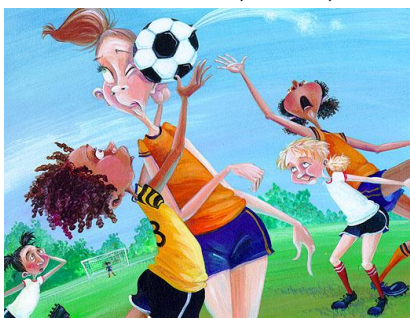
Vegetables (2 cups), Fruit (2 pieces), and Milk (1-2 cups) or juice (1-2 cups)

Fluids and Their Importance

The archenemy of any athlete is dehydration. At a level of only 1-2% dehydration, a young soccer player will start to feel prematurely tired or fatigued. This could occur after playing for only 15 minutes under intense sun or within 30 minutes of normal weather conditions depending on how much fluid had been consumed prior to playing. Whether an athlete prefers water or sports drink, both are the solution to dehydration. To help an athlete understand the critical aspect of fluid needs, discussing the role water plays in energy metabolism can be helpful. Each exercising muscle cell uses water as part of the process of breaking down energy nutrients such as carbohydrate and fat. As exercise becomes

prolonged, more energy is needed to fuel activity. In addition, as sweating occurs to cool the body during activity, more water is lost. If fluid is not replaced, the body's ability to sweat is decreased and the body's internal core temperature increases. In the extreme case, heat stroke can occur due to an excessively high internal core temperature. There are many degrees or stages of dehydration before this, but the bottom line is that no degree of dehydration is good. Preventing dehydration can be simple as long as the soccer player will drink as frequently as possible during a game and go into the game well hydrated. Water, in and of itself,

is a nutrient. It provides no calories or energy, but it can adequately hydrate an athlete both before and during play. However, excellent studies have shown that athletes don't drink adequate volume of water alone. Since taste appears to influence the amount or volume of fluid consumed at any given time, sports drinks that come in a wide variety of flavors and colors appear to stimulate thirst and consequently volume consumed. The fact that sport drinks contain a small percentage of carbohydrate, sodium, and potassium almost makes them a superior fluid to water. However, water, in many cases, can be an adequate hydration beverage. If a young



soccer player appears to sweat profusely, losing noticeable body water, a sports drink may be the better choice in preventing dehydration. It is strongly recommended that both sports drinks and water are made available to young athletes and that the coach encourages frequent drinking, beyond the level of basic thirst. Recommendations for drinking before, during, and after a game of soccer are as follows:

Before a game, drink 16 oz. or 2 cups of fluid one hour prior to playing

During a game, make an effort to drink 4-6 oz. or cup of

fluid every 15-20 minutes of play time

After a game, drink immediately and often until urine color is very light yellow to clear. Encourage athletes to carry water bottles and start hydrating in preparation for a game the night before. According to some studies, urine color can be related to hydration status and this may be a good way to help younger athletes pay attention to how much they've had to drink.

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