



## SPORTS NUTRITION

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**Abstract:** Each Sports Person is also different, and there is no single diet that meets the needs of all Sports Person at all times. Individual needs also change across the season and Sports Person must be flexible to accommodate this. Diet may have its biggest impact on training, and a good diet will help support consistent intensive training while limiting the risks of illness or injury. Good food choices can also promote adaptations to the training stimulus. Getting the right amount of energy to stay healthy and to perform well is essential. Consuming too much energy increases body fat. If Sports Person do not eat enough, performance falls, injuries are more likely to occur, and illness results. Carbohydrate supplies the muscles and brain with the fuels they need to meet the stress of training and competition. Sports Person must be aware of what foods they should choose to meet their carbohydrate needs, how much should be eaten, and when these foods should be eaten. Foods rich in protein are important for building and repairing muscles, but a varied diet containing everyday foods will generally supply more than enough protein. With protein also, the timing of intake in relation to training and competition may be important. **The Pre-Game Meal:** A pre-game meal three to four hours before the event allows for optimal digestion and energy supply. Most authorities recommend small pre-game meals that provide 500 to 1,000 calories. The meal should be high in starch, which breaks down more easily than protein and fats. The starch should be in the form of complex carbohydrates (breads, cold cereal, pasta, fruits and vegetables). They are digested at a rate that provides consistent energy to the body and are emptied from the stomach in two to three hours.

**During-Competition Meal:** Any activity that lasts for 1 hour or longer places sufficiently high demands on an athlete's stored energy level that carbohydrate consumption during activity will delay fatigue and improve performance. There is even some recent energy strongly suggesting that power Sports Person and those involved in stop-and-go activities can benefit from consumption of carbohydrate-containing sports beverages, even if the activity is less than 1 hour.

**The Post-Game Meal:** Regardless of age, gender or sport, the post-game. Competition meal recommendations are the same. A small meal eaten within thirty minutes is very beneficial. The meal should be mixed, meaning it contains carbohydrate, protein, and fat. Protein synthesis is greatest during the window of time immediately following a workout and carbohydrates will help replete diminished glycogen stores. However, consume food within the 30 minute window may be difficult for athletes—they often experience nausea or lack of hunger.

**Concluding:** Sports Person eat enough carbohydrate-rich foods to maximize muscle glycogen stores before training and competition and replenish the stores after hard exercise. The timing of protein intake can promote muscle protein synthesis. Sports Person make healthful food choices and develop sound on-court hydration plans. Heat illness is one of the most common sports medical issues and it is completely preventable.

**Keywords:** Yoga, Health, Holistic Health

### Introduction:

Sports Person covers a wide range of events which require varying inputs of technique, strength, power, speed and endurance. Each Sports Person is also different, and there is no single diet that meets the needs of all Sports Person at all times. Individual needs also change across the season and Sports Person must be flexible to accommodate this. Diet may have its biggest impact on training, and a good diet will help support consistent intensive training while limiting the risks of illness or injury. Good food

choices can also promote adaptations to the training stimulus. Getting the right amount of energy to stay healthy and to perform well is essential. Consuming too much energy increases body fat. If Sports Person do not eat enough, performance falls, injuries are more likely to occur, and illness results. Carbohydrate supplies the muscles and brain with the fuels they need to meet the stress of training and competition. Sports Person must be aware of what foods they should choose to meet their carbohydrate needs, how much

should be eaten, and when these foods should be eaten. Foods rich in protein are important for building and repairing muscles, but a varied diet containing everyday foods will generally supply more than enough protein. With protein also, the timing of intake in relation to training and competition may be important.

Well-chosen vegetarian diets can easily meet protein needs. A varied diet that meets energy needs and is based largely on nutrient rich choices such as vegetables, fruits, beans, legumes, cereals, lean meats, fish and dairy foods should ensure an adequate intake of all the essential vitamins and minerals. Excluding any of these food groups increases the risk of missing out on important nutrient needs and means that more careful food choices must be made. Maintaining hydration is important for performance. Fluid intake before, during (where appropriate) and after both training and competition is important, especially in hot climates. When sweat losses are high, foods and drinks must also contain sufficient salt to replace the salt lost in sweat. All Sports Person are cautioned against the indiscriminate use of dietary supplements, and young Sports Person is actively discouraged from supplement use. The goal of many power and sprint Sports Person is to enhance muscle mass and strength through specially designed resistance training programmed. In most cases, these Sports Person believe that their food focus should be on protein intake. In fact, there is no evidence that very high intakes of protein (> 2 g per kg BM) are necessary or even advantageous for optimizing the results of resistance training. It is likely that the best results are achieved through enhanced recovery strategies such as providing a source of protein and carbohydrate immediately before or after the workout. Many power and sprint Sports Person forget to bring a drink bottle to training. However, workouts are best undertaken when the athlete is well-hydrated and well-fuelled. Fuelling with a sports drink can help the athlete to keep lifting or training with a good technique, right to the end of a long session. There are numerous supplements that claim to

promote recovery, increase muscle mass, reduce body fat and enhance performance. These claims are attractive to all athletes, but seem particularly entwined with the world of body building and strength training. Many Sports Person are not aware that the claims made for most products are unsupported or exaggerated, and that the industry operates with little regulation. Competition issues most sprint events are conducted over a short time, with minimal impact on fluid and carbohydrate levels. However, competition can require the athlete to compete in a series of heats, semis and finals, or with long periods between rounds of a field event or multi-sport competition. This calls for special eating strategies to recover between events or to manage fluid and energy levels over a long day.

Sports Person need more minerals, more amino acids, more enzymes and more phytonutrients and vitamins. They need more antioxidants to protect against the byproducts of exercise. They need more natural Cox-2 inhibitors to protect against inflammation. When these nutrient needs are unmet, cells are damaged. So, if you are active, you need more, not less nutrition.

### **The Pre-Game Meal**

A pre-game meal three to four hours before the event allows for optimal digestion and energy supply. Most authorities recommend small pre-game meals that provide 500 to 1,000 calories. The meal should be high in starch, which breaks down more easily than protein and fats. The starch should be in the form of complex carbohydrates (breads, cold cereal, pasta, fruits and vegetables). They are digested at a rate that provides consistent energy to the body and are emptied from the stomach in two to three hours.

High-sugar foods lead to a rapid rise in blood sugar, followed by a decline in blood sugar and less energy. In addition, concentrated sweets can draw fluid into the gastrointestinal tract and contribute to dehydration, cramping, nausea and diarrhea. Don't consume any carbohydrates one and a half to two hours before an event. This may lead to premature exhaustion of

glycogen stores in endurance events. Avoid a meal high in fats. Fat takes longer to digest as does fiber- and lactose-containing meals. Take in adequate fluids during this pre-game time. Avoid caffeine (cola, coffee, tea) as it may lead to dehydration by increasing urine production. Don't ignore the psychological aspect of eating foods you enjoy and tolerate well before an event. However, choose wisely -- bake meat instead of frying it, for example. Some Sports Person may prefer a liquid pre-game meal, especially if the event begins within two or three hours. A liquid meal will move out of the stomach by the time a meet or match begins. Remember to include water with this meal.

#### **During-Exercise/Competition Meal**

Any activity that lasts for 1 hour or longer places sufficiently high demands on an athlete's stored energy level that carbohydrate consumption during activity will delay fatigue and improve performance. There is even some recent energy strongly suggesting that power Sports Person and those involved in stop-and-go activities can benefit from consumption of carbohydrate-containing sports beverages, even if the activity is less than 1 hour. The type of activity determines whether the carbohydrate should be in liquid or solid form. Several studies clearly demonstrate the improved performance potential of providing carbohydrates during activity, so this should be an important strategy for all Sports Person involved in regular physical activity.

Moderate Intensity Activity causes a somewhat reduced (60%-70% of normal) blood flow to the stomach, but the athlete is still able to digest food in this state. Long-distance bicyclists, skiers, and ultra-marathon runners who are working at moderate intensity over long distances, often show a preference for both solid foods (bananas, bread, etc.) and sports beverages combined. Moderate intensity activity that involves bouncing (running, etc.) may leave Sports Person uncomfortable if solid food is consumed.

High Intensity Activity, such as figure skating, gymnastics, and sprinting

dramatically reduces blood flow to the stomach (20% of normal), so solid foods are not well tolerated. These Sports Person should plan on consuming sports beverages to maintain energy and hydration status.

Some Sports Person do not like consuming sports beverages or foods during activity because they fear this will cause stomach problems. However it has been demonstrated that inadequate energy and fluid intake is more likely to cause GI distress. Sports Person should *learn* to consume carbohydrate-containing sports beverages during physical activity to assure that hydration state is maintained and to keep a constant flow of carbohydrate entering the system.

#### **The Post-Game Meal**

Regardless of age, gender or sport, the post-game. Competition meal recommendations are the same. Following a training session or competition, a small meal eaten within thirty minutes is very beneficial. The meal should be mixed, meaning it contains carbohydrate, protein, and fat. Protein synthesis is greatest during the window of time immediately following a workout and carbohydrates will help replete diminished glycogen stores. However, consume food within the 30 minute window may be difficult for athletes—they often experience nausea or lack of hunger. Options to address this difficulty include: Carbs you can drink that contain protein. There are several liquid smoothies and beverages on the market that provide high protein and carbohydrates for replenishment. One classic is chocolate milk. If that is difficult, fruit, popsicles, oranges, bananas, bagels, melon, or apple slices all would be better than not consuming any food. Many Sports Person turn to protein/amino-acid supplementation in the form of powders or pills post-workout. These are unnecessary and have been linked to dehydration, hypercalciuria, weight gain, and stress on the kidney and liver. Furthermore, any Sports Person consuming supplements in replacement of meals should consult with their doctor or a registered dietitian before continuing. Maintain nutritional conditioning not only for athletic events.

**Concluding:**

Sports Person and their nutrition needs can differ significantly from that of the general public. Who could forget Michael Phelps' 8,000- to 10,000-calorie-per-day diet while training for the 2008 Olympics? The International Olympic Committee's 2010 Consensus Statement on Sports Nutrition recommends. Sports Person eat enough carbohydrate-rich foods to maximize muscle glycogen stores before training and competition and replenish the stores after hard exercise. The timing of protein intake can promote muscle protein synthesis. Sports Person make healthful food choices and develop sound on-court hydration plans. Heat illness is one of the most common sports medical issues and it is completely preventable. three to four hours with five sets so they need more than fluids. Coach encourage them to eat high-carbohydrate energy bars, gels and bananas, in addition to high-carbohydrate sport drinks with packets of electrolytes to help them replace on-court losses.

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