



Nutrition for Soccer

Our kids need a well-rounded diet to promote good health and growth. An active child in a competitive soccer program needs to modify their eating habits even more. They need nutrient-rich foods to accommodate the energy demands of soccer training and games.

Young athletes need to eat the right foods, in sufficient amounts, at a specific time. If a young athlete does not follow the lifestyle of a good eating routine then they will not perform as well as they could. They will have less energy than their teammates and opponents that are following an appropriate food plan. The rigors of soccer training and tournament weekends will make a nutrient-deficient child more susceptible to injury and illness.

Coaches are always looking for the "Winning Edge." Nutrition is frequently a missing-link to the advantage they so often seek. Nutrition is one of the simplest areas to improve the athlete's performance.

Sports Nutritionists will tell you that eating is as important as practicing your sport skills. They will also tell you that the progress in improving those sport skills and conditioning week after week are much better when the athlete has a well-balanced eating strategy.

Eating breakfast, lunch and dinner while snacking regularly is a part of a well-balanced eating plan. Do not skip any meals! Eat small amounts for those common meals that a child may often skip. For those who don't have an appetite in the morning, drinking a nutrient-rich smoothie may be wonderful alternative. A morning smoothie with a small amount of protein will produce the correct brain chemistry to send your child to school with a stimulated attitude for learning.

All this doesn't mean our children cannot eat "fun foods." It just means they need to eat them less often and in moderation.

All information provided in this packet is for general use. We recommend that everyone refer to their physician or healthcare provider for additional information.

Eat well and enjoy the game of soccer as your opponents will wonder what you are doing right!



IMPORTANT: If you have any sensitivity to foods or specific ingredients, we recommend that you continue your dietary plan prescribed by your physician or healthcare provider.

Soccer Food

When & What to Eat Before a Game

Never skip the pre-game meal or snack

- * 3-4 hours before game time – eat a large meal (80% carbs / 15% protein / 5% fat)
- * 2-3 hours before game time – eat a small meal (85% carbs / 15% protein / 0% fat)
- * 1-2 hours before game time – liquid meal only (90% carbs / 10% protein / 0% fat)

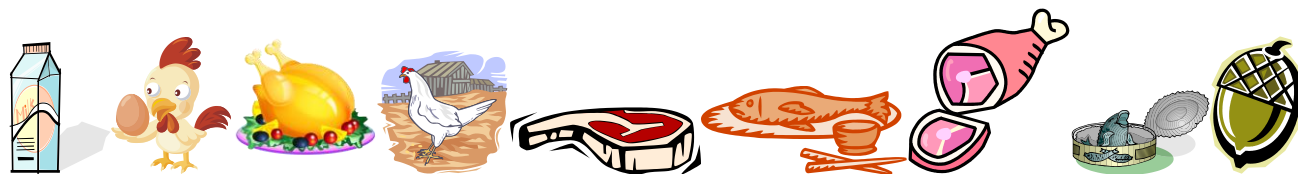
Carbohydrates are found in nutrient-rich foods such as fruits, vegetables, milk and milk products, whole grain breads, cereals, bagels, crackers, rice, beans, pastas, granola bars and sport drinks.



AVOID CARBOHYDRATES from low nutrient foods such as sugar, high fructose corn syrup, soda, candy, cake, cookies, pastries & chips.



Protein is found in low-fat milk and milk products, eggs, skinless chicken & turkey, beef, low-fat sandwich meats, pork, fish & can tuna in water, nuts, seeds, soy products and other dried beans.



Fat is found naturally in a variety of foods and also added to many processed snack foods & sweets. Choose fats that contain healthier fats such as olive & canola oils, nuts and seeds.



"Great athletes are not born, they're made. What you eat will help you become a better athlete"

Meal Guidelines

- * In pre-game meals, include low-fat and nonfat foods high in carbohydrates. Protein should be moderate to low in gram content and very little to no fat. Drink plenty of fluids.
- * The closer you eat to game time, the higher the carbohydrate and lower the protein content of your meal should be. Possibly a liquid meal if it is within an hour or two.
- * Avoid large amounts of fats and creams because they will slow the digestive rate significantly and they may also make you feel heavy & sluggish. It is important to know that nutrients better serve you completely digested and flowing in your bloodstream.
- * Too much high fiber foods (raw fruits, vegetables, dry beans & bran) in some children can cause flatulents and an upset stomach, especially if eaten near game time.
- * Do not drink high caffeine energy drinks before a game since they may leave you feeling jittery with an upset stomach and have the potential for "energy-crash." We highly recommend not allowing these types of drinks be given to children at any time. These drinks wreak havoc on children's brain chemistry and health with excessive caffeine and herbal stimulants.
- * Avoid last minute sweets. They can give you quick energy but will leave you feeling tired and sluggish later in the game.

IMPORTANT: *It is very important to introduce new foods to your stomach during a training cycle, soccer practice or less significant game. You want to experiment to see if there will be any gastrointestinal stress or stomach upset. Practice what you eat!*

Your mom was right! "Breakfast is the most important meal of the day"



Tournament Weekend

When & What to Eat After Last Practice

- * After your last soccer practice of the week before the big tournament, at the field, drink a homemade smoothie (see page 15 for recipes) or Shamrock Farms chocolate milk.
- * Begin drinking regularly, extra fluids after your last soccer practice of the week before the big tournament.
- * After soccer practice eat a nutrient-rich carbohydrate meal with some protein and a little fat.

When & What to Eat the Night Before a Game

- * Eat a good pasta meal with bread, salad, fruit and plenty of carbohydrate-rich fluids (Gatorade, fruit punch, lemonade, etc.).
- * Continue drinking a variety of fluids.

When & What to Eat in the Morning

- * If you have 3-4 hours before game time: Eat a large, high carbohydrate meal (80% carbohydrates / 15% protein / 5% fat)
- * If you have 2-3 hours before game time: Eat a light, high carbohydrate meal (85% carbohydrates / 15% protein / 0% fat)
- * If you have 1-2 hours before game time: **Liquid**, high carbohydrate meal only, (90% carbohydrates / 10% protein / 0% fat). See smoothie recipe page for options.

When & What to Eat Between Games

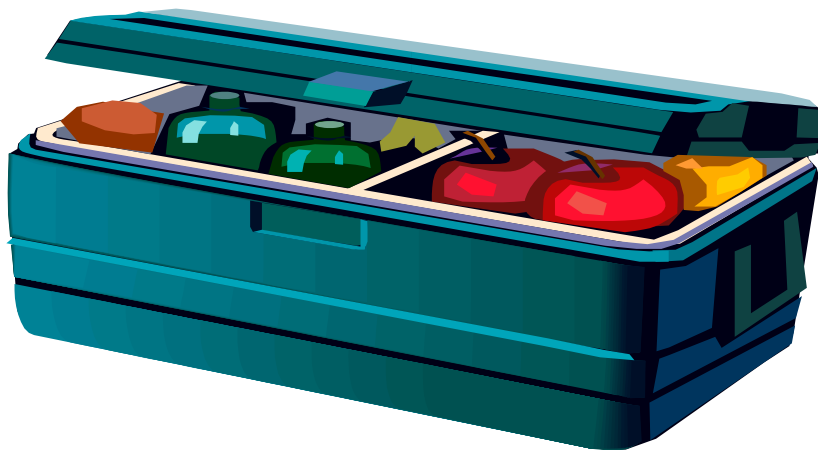
- * Minutes after a game drink 6-12 ounces of a homemade smoothie, Shamrock Farms chocolate milk or Shamrock Farms Rockin' Refuel chocolate milk.
- * If you have 1-2 hours before next game: In addition to the smoothie or chocolate milk, you may eat small amounts of fresh fruit, trail mix, 100% fruit or vegetable juice and more water.
- * If you have 2-3 hours before next game: In addition to the smoothie or chocolate milk, you may eat small amounts of fresh fruit, nonfat-whole grain crackers, dried fruits, dry cereal, granola bar, fig bars, plain sub-sandwich, 100% fruit or vegetable juice and/or sports drinks.
- * If you have 3-4 hours before next game: In addition to the smoothie or chocolate milk, you may choose to eat a turkey sandwich, white bun, mustard and extra vegetables. Pasta & light sauce with salad. Other items to choose from may be a bagel, baked potato, low-fat yogurt, fresh fruit, nonfat crackers, dried fruits, granola & fig bars, fruit or vegetable juice & sports drinks.

IMPORTANT: When eating between games, remember to chew each bite of your food 10-20 times **EXTRA** than you normally do. This will make your food nearly liquefied before swallowing. It is important to know that this will digest your food quicker. Food is only beneficial when it is completely digested and flowing in your bloodstream.

Travel Team Ice Cooler

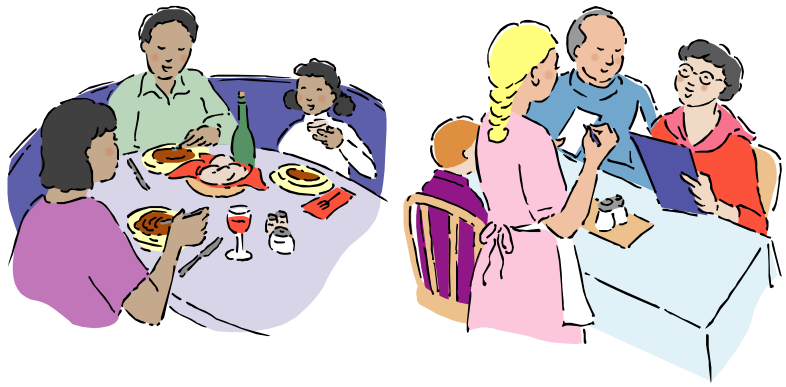
- | | |
|--|--|
| * water | * fresh bananas |
| * 100% fruit juices | * fresh oranges |
| * 100% vegetable juices | * fresh pears |
| * sports drinks | * fresh grapes |
| * smoothies (homemade or manufactured) | * fresh apples |
| * instant breakfast drinks | * fresh peaches |
| * Shamrock Farms chocolate milk | * fresh watermelon |
| * bagels | * canned fruits in natural juices |
| * tortillas | * dried fruit |
| * whole grain crackers | * raisins |
| * Pop Tarts | * trail mix |
| * dry cereals (single serve boxes) | * veggie plate with nonfat dip |
| * fig bars | * carrot & celery sticks |
| * animal crackers & graham crackers | * cherry tomatoes |
| * popcorn | * light canned tuna/chicken (in water) |
| * Cracker Jacks | * beans (kidney, pinto, black) |
| * rice cakes | * low-fat cottage cheese & fruit packs |
| * salted pretzels | * low-fat cheese |
| * raisin bread | * low-fat string cheese |
| * sports bars | * low-fat yogurt |
| * whole grain cereal bars | * peanut butter |
| * low-fat granola bars | * nuts & seeds |
| * dried cup-o-soup | * * BRING YOUR BLENDER TO THE HOTEL |

Fun Foods in moderation only! Some of the foods in the above list are used for tournament weekends only. Some of these ingredients are called 'fun foods.' They should be consumed in moderation and in relation to high levels of physical activity only. So Pop Tarts and Cracker Jacks are not for everyday consumption. 😐



"The will to win means nothing, if there is no will to prepare. Eat well"

IMPORTANT: If you have an early morning game time, we recommend the night before having a **large** pasta meal with plenty of bread, fruits, salad and fluids. Maybe also have a smoothie before bedtime. Wake up early enough to completely digest a small homemade smoothie in the hotel room.



Travel Menu Tips

BREAKFAST CHOICES

- * waffles & syrup, toast with peanut butter, orange juice
- * corn flakes with sliced fruit and low-fat milk, toast & jelly, apple juice
- * pancakes & syrup, scrambled egg, low-fat milk
- * yogurt with granola mixed in, toast & jelly, chocolate milk
- * scrambled egg, English muffin & jelly, yogurt, cranberry juice
- * fruit crepes, toast & peanut butter, low-fat milk

ALTERNATIVE: mix and match any choice to better serve your taste-buds

AVOID: fatty meats such as bacon and sausage

LUNCH CHOICES

- * turkey sandwich with mustard, extra tomato & lettuce, tomato soup, yogurt, Gatorade
- * fish pita, salad with extra vegetables, bowl of fresh fruit, lemonade
- * vegetable soup, lean roast beef, bread or roll, pudding, chocolate milk
- * soft tacos & enchiladas, rice, salsa & baked chips, lemonade

ALTERNATIVE: use darker more dense sandwich bread, light meats with fat cut-off, lots of vegs

AVOID: sodas, oils, mayonnaise and creams

DINNER CHOICES

- * pasta & marinara sauce with pieces of fish mixed in, bread-sticks, fruit salad, Gatorade
- * seafood salad with extra vegetables, tortilla, fruit salad, lemonade
- * spaghetti & marinara sauce with chunks of chicken breast, bread, fruit salad, Chocolate milk
- * baked or grilled chicken, mashed potatoes, peas & carrots, dinner roll, fresh fruit, milk
- * very thick crust pizza with heavy vegetables (no meats), fruit salad, Gatorade

ALTERNATIVE: mix and match any choice to better serve your taste-buds

AVOID CHOICES: sodas, heavy cream sauces, oils



**"Don't just eat, eat well,
your performance depends on it"**



IMPORTANT: When discussing nutrition, eating and dieting never mention a child's looks. Don't let them overhear you talk about other people's appearance (i.e., "too heavy," "too thin," "too fat," "baby-fat," "bigger than others their age," "no muscle," etc.). This may convey to them "I am not good enough." This may also lead to eating disorders and unhealthy supplementation (including steroids) in males and Bulimia Nervosa and Anorexia Nervosa in females. These disorders can lead to dangerously low body weights resulting in the syndrome known as the Female Athlete Triad (i.e., less effectiveness of energy availability, menstrual function, and bone mineral density). There are a multitude of body-types and generally they will "grow out of it" if they stay active. Always emphasize health as the main talking-point when discussing food, eating and nutrition planning.

Carbohydrate Science

The body requires three basic macro-nutrients to sustain life's functions. The carbohydrate is one of these nutrients that are necessary for energy. The body cannot produce energy for activity and exercise without plenty of stores of glycogen in the muscles and liver with a high level of blood glucose. When glycogen levels become low so does energy and performance. So we need a well-balanced diet with protein, fats and carbohydrates. To replenish glycogen that has been depleted through exercise or competition we must refuel the muscles with 30-60 grams of carbohydrates for every hour of exercise/activity (*continuous or accumulative*). So when you finish the activity begin putting carbohydrates back into your body (1 hr. = 30-60 g. / 2 hrs. = 60-120 g. / 3 hrs. = 90-180 g., etc.)

Carbohydrate Intake Guidelines for Activity of the Competitive Soccer Player

TIMELINE	CARB (g) = 1 lb. BW	50 lb. Athlete	Daily Total
1-4 hours before activity	0.5 – 1.8 grams	25 – 90 grams	255– 310 grams
30 min. after activity	0.7 grams	35 grams	
2 hours after activity	0.5 – 0.7 grams	25 – 35 grams	

TIMELINE	CARB (g) = 1 lb. BW	100 lb. Athlete	Daily Total
1-4 hours before activity	0.5 – 1.8 grams	50 – 180 grams	360– 450 grams
30 min. after activity	0.7 grams	70 grams	
2 hours after activity	0.5 – 0.7 grams	50 – 70 grams	

TIMELINE	CARB (g) = 1 lb. BW	150 lb. Athlete	Daily Total
1-4 hours before activity	0.5 – 1.8 grams	75 – 270 grams	540– 675 grams
30 min. after activity	0.7 grams	105 grams	
2 hours after activity	0.5 – 0.7 grams	75 – 105 grams	

Each snack contains 30 grams: 8 oz. Shamrock Farms chocolate milk, 16 oz. Gatorade, 1 large banana, 6 graham cracker squares, 2 large carrot sticks, $\frac{3}{4}$ Power Bar, $\frac{1}{2}$ English muffin w/ 1 tbs. jelly, 2 hard granola bars, 2 cups Cheerios, 3 fig cookies, 1 fruit-flavored cereal bar, 16 animal crackers, 1 $\frac{1}{2}$ oz. pretzels, 12 saltine-type crackers, 1 cup 100% apple juice, $\frac{1}{2}$ cup raisins

Carbohydrate-Rich Foods

Before & After Training & Games

FOOD	Serving Size	Carbohydrate (g)	Calories	Part of RDA
bagel (plain)	3 ½" dia.	38	195	2 grains
hoagie roll	1	75	400	2 grains
English muffin	1	25	120	1 grain
waffle (multigrain frozen)	1 waffle	15	77	1 grain
pancake (plain)	4" dia.	15	80	1 grain
flour tortilla	10" dia.	40	245	2 grains / 1 fat
cooked oatmeal	1 cup	25	145	2 grains
instant flavored oatmeal	1 packet	36	172	2 grains
Cheerios & milk	¾ c cereal / ½ c milk	27	140	1 grain / ½ milk
rice (white cooked)	1 cup	15	80	1 grain
pasta (cooked)	1 cup	43	230	2 grains
apple bran muffin (low-fat)	2 oz. wt.	30	150	2 grains
potato (baked, without skin)	1 medium	30	160	1 grain
baked beans	1 cup	50	260	1 grain
lentils (cooked)	1 cup	40	230	1 grain
spaghetti (cooked)	1 cup	40	200	1 grain
Ramon noodles	½ package	25	190	1 grain
macaroni & cheese	1 cup	47	360	1 grain
Spagettios	1 cup	37	180	1 grain
tuna sandwich (white)	1 sandwich	30	238	2 meat / 2 gr / ½ fat
bean burrito	6 oz. wt.	30	355	2 grains / 1 fat
peanut & butter sandwich	1 sandwich	30	346	1 meat / 2 gr / 1 fat
yogurt (fruit / low-fat)	1 cup	45	240	1 milk / 1 fruit
Pop Tart (fruit / low-fat)	1 pastry	40	190	1 grain / ½ fat
peas	½ cup	10	60	1 vegetable
broccoli	½ cup	5	20	1 vegetable
green beans	½ cup	5	20	1 vegetable
carrot	1 medium	10	40	1 vegetable
corn (canned)	½ cup	15	70	1 vegetable
zucchini	½ cup	2	10	1 vegetable
marinara sauce	¾ cup	15	80	1 vegetable
apricots (dried)	10 halves	20	85	1 fruit
orange	1 medium	15	65	1 fruit
banana	1 small	15	60	1 fruit
fruit (fresh)	1 medium or ½ c sliced	15	60	1 fruit
fruit juice (100%)	1 cup	27	114	2 fruits
raisins	¼ cup	33	124	2 fruits
fig cookies	2 cookies	23	90	1 sugar
fruit cereal bar	1 bar	27	140	1 grain
Power Bar	1 bar	45	230	2 grain / 1 milk
maple syrup	1 tablespoon	13	50	1 sugar
honey	1 tablespoon	15	60	1 sugar
brown sugar	1 tablespoon	13	52	1 sugar
jam / jelly	1 tablespoon	14	56	1 sugar
gummy bears / jelly beans	15	33	127	2 sugars
Sports Drink	16 oz.	30	120	2 sugars
orange juice	8 oz.	25	105	1 fruit
apple juice	8 oz.	30	120	1 fruit
Shamrock Farms choc. milk	6 oz.	22	150	1 milk

"In order to succeed, you must first believe"

Extreme Athletics, Inc. 2000-2010 ©

Protein Science

Fuel for Muscle Development

Protein has several functions in the body. Contrary to belief, it is not just to build and repair of muscle tissue. It is in every cell of our body, involving in every chemical reaction within the body. Protein aids in fighting infection & building the immune system, regulating blood-sugar levels, produces hormones, and replaces red blood cells. More is not better as most of us have heard to the contrary. We need to compliment our protein intake with a variety of nutrient-rich foods and exercise to maximize the benefit many athletes and soccer players seek. Too much protein causes dietary imbalances that eventually affect performance. Too little protein is also not good. This may cause an iron-deficiency (*for red blood cells*), zinc (*for healing*), calcium (*for bones*) and several other nutrients which lead to anemia and poor health. No need to be concerned of all this as long as you eat regularly with a variety of healthy foods along with daily exercise.

"You should never let your fears hold you back from pursuing your dreams"

Protein for the Vegetarian

A common concern for some families with specific dietary preferences is to eat enough protein. A vegetarian athlete can be energized well enough to perform maximally with a diet which is diverse and well-rounded. This will not matter if you are vegan, ovo-vegetarian, lacto-vegetarian or a lacto-ovo-vegetarian. Research indicates that a diet containing diverse plant foods can provide all essential amino acids. The amino acid building blocks of protein are the answer. This macronutrient takes a little more consideration and knowledge for vegetarians to ensure appropriate amounts in the daily diet. Essential amino acids are those that the body is not able to produce, and so must be consumed through the diet. It is commonly thought that plant-based sources of protein are deficient in one or more of the essential amino acids (*termed an incomplete protein*). According to some studies, plant-based sources are complete, the issue is that some sources have amounts too low to be considered adequate sources on their own. Therefore, a vegetarian needs to become knowledgeable about protein sources. For instance, even though some plant-based sources have reduced amounts of particular amino acids, one can combine foods to fill in these "amino acid gaps." If one food is low in lysine for example, then it should be combined with a food that is high in lysine. Some examples of appropriate combinations are: grains and legumes (*beans, peas, and lentils*), legumes and seeds (*sunflower and sesame*), grains and dairy products. There are a couple of sources which will by themselves offer a complete protein. These sources are egg and soy protein. Egg protein is the most complete source of protein. Whey and soy smoothies are a great addition to the diet of a vegetarian athlete. These easy-to make drinks are a great source of protein for any athlete, as most offer higher protein content than found in a single serving of other foods. Soy smoothies would be the choice for vegans as whey protein is derived from a dairy protein.



Daily Protein Intake Guidelines for the Female Soccer Player

AGE	Protein (g) = 1 lb. BW	50 lb. Athlete
7 – 10 years	0.6 – 0.7 grams	30 – 35 grams
AGE	Protein (g) = 1 lb. BW	100 lb. Athlete
11 – 14 years	0.8 – 0.9 grams	80 – 90 grams
15 – 18 years	0.75 – 0.85 grams	75 – 85 grams
AGE	Protein (g) = 1 lb. BW	150 lb. Athlete
11 – 14 years	0.8 – 0.9 grams	80 – 90 grams
15 – 18 years	0.75 – 0.85 grams	75 – 85 grams

Daily Protein Intake Guidelines for the Male Soccer Player

AGE	Protein (g) = 1 lb. BW	50 lb. Athlete
7 – 10 years	0.6 – 0.7 grams	30 – 35 grams
AGE	Protein (g) = 1 lb. BW	100 lb. Athlete
11 – 14 years	0.75 – 0.85 grams	75 – 85 grams
15 – 18 years	0.8 – 0.9 grams	80 – 90 grams
AGE	Protein (g) = 1 lb. BW	150 lb. Athlete
11 – 14 years	0.75 – 0.85 grams	75 – 85 grams
15 – 18 years	0.8 – 0.9 grams	80 – 90 grams

“Every great achievement once seemed impossible”

Protein Foods

FOOD	Serving Size	Protein (g)	Calories	Daily Require
egg white	1 large	3	13	½ meat
egg whole	1 large	11	40	½ meat
cheese (American fat-free)	1 slice	6	31	½ milk
cheese (cheddar)	1 oz.	7	114	1 milk
milk	1 cup	7	84	1 milk
cottage cheese	½ cup	15	100	1 milk
yogurt (vanilla)	6 oz.	9	180	1 milk
milkshake (chocolate)	12 oz.	12	432	1 milk / 1 sugar
ice cream (regular vanilla)	½ cup	3	114	1 sugar
yogurt (frozen vanilla)	½ cup	3	114	1 milk / 1 sugar
peanut butter	2 tablespoons	8	188	½ meat
tuna (canned, in water)	3 oz.	22	100	1 meat
chicken breast (boneless)	½ breast	26	140	1 meat
chicken wing (roasted)	2	7	83	¼ meat
sirloin steak	6 oz.	51	308	2 meats
hamburger (meat only)	4 oz. patty	33	292	1 meat
flounder	4 oz.	23	113	1 meat
shrimp	6 large	9	45	1 meat
salmon (baked or broiled)	3 oz.	23	184	1 meat
lobster (steamed)	3 oz.	17	83	1 meat
cheese pizza	1 slice	14	200	1 meat
oatmeal (Quaker uncooked)	1 cup	6	145	1 grain
Kellogg's Special K	1 cup	6	115	1 grain
rice (brown)	1 cup	5	220	1 grain
rice (white)	1 cup	5	240	1 grain
potato (baked, without skin)	1 medium	4	220	1 grain
tofu	½ cup	20	183	1 grain
bagel (plain)	1 large	10	270	2 grains
bagel (cinnamon raisin)	3 ½" dia.	7	195	1 grain
Indian fry bread	10 ½" dia.	11	526	2 grains
pita bread	6 ½" dia.	5	165	1 grain
lentil soup	1 cup	9	140	1 grain
minestrone soup	1 cup	5	120	1 grain
black bean soup	1 cup	8	170	1 meat
chicken noodle soup (chunk)	1 cup	13	175	1 meat / 1 grain
green pea soup	1 cup	13	175	1 vegetable
cashews (oiled roasted)	1 cup	29	749	2 grains / 2 oils
pasta	1 ½ cups	10	300	1 grain
black beans	½ cup	7	162	1 meat
black-eyed peas (frozen)	1 cup	14	224	1 vegetable
chick peas	½ cup	6	140	½ vegetable
bean burrito (fast food)	1	13	370	1 meat / 1 grain
pork rinds	1 oz.	17	155	2 oils
Trail Mix	1 cup	21	707	2 grains / 1 fruit / 1 oil
Power Bar	1	10	230	1 sugar
Balance Bar	1	14	180	1 sugar
Clif Bar	1	12	250	1 sugar
Shamrock Farms choc. milk	6 oz.	7	150	1 milk

"Remember that winners do what losers don't want to do, eat for success"

Hydration & Fluid Replacement

The most important nutrient to the athlete is water! The human body is comprised of 50-70% water. Dehydration stresses the body significantly. Your heart beats faster, body temperature rises, you use up more **glycogen**, you lose effectiveness of concentration and the activity is tremendously harder to all senses of the body. Keeping the body in a water-balanced state is not difficult, but requires consistency and practice.



A competitive soccer player can lose two liters in sweat during a game in climatic temperatures in the range of 72°-80°. In hot weather, you can lose nearly 3 quarts of fluid through sweat!

A standard used by some coaches is to drink ½ cup of fluid four hours before game time and then again 3 hours before game time. Drink another ½ cup of fluid two hours before game time, followed up with another ½ cup of fluid before warm-ups begin. Drink a ½ - 1 cup during warm-ups. At halftime drink as much as you can comfortably. This standard will vary depending on each athlete, their bodyweight and is also influenced by age and daily hydration habits. When the game has ended drink 2 cups for every pound of bodyweight lost. This can be accurately done using the bathroom scale procedure (see *IMPORTANT notice below for details*). Begin pre-hydration at least 4 hours before activity. This will eliminate the need to empty excess water from the bladder but enough time if you *need* to go to the restroom. If you eat a couple of saline crackers it will encourage more thirst and the sodium will assist in retaining more of the fluid to reach optimum water-balance.

The National Strength & Conditioning Association's daily recommendation is approximately 1 quart of water for every 50 pounds of body weight. They also refer to alkaline water for the best results. More information at kangenwatersolutions.com

IMPORTANT: *A simple way to determine the loss of sweat and how much you need to replace after activity is to use a common bathroom scale. Weigh yourself before training or a game and then after. For every pound of bodyweight loss /drink 16-20 oz. of a sports drink and water. This also determines how much more you should drink during a game and not just after a game. Do not weigh yourself in wet clothing.*

Dehydration of 1-2% of your body weight will begin to compromise physiologic function and negatively influence performance. Some research studies have indicated that up to 30% of an athlete's speed, strength and endurance can be lost when this amount of bodyweight is lost through sweating. This is an enormous benefit to your opponents! Dehydration of greater than 3% of bodyweight further disturbs physiological function and increases the athlete's risk of developing heat cramps or heat exhaustion. There is an easy remedy to this dilemma. Drink plenty of a variety of fluids daily, not just when you are thirsty. When you become thirsty, it is already too late and you are now in a negative water-balance.

IMPORTANT: *Mild dehydration may lead to no adverse feelings. Excessive dehydration though could lead to death and should raise your concerns if you recognize any of the following: muscle cramps, nausea, headache, dizziness, confusion, disorientation, weakness, reduced performance, inability to concentrate, irrational behavior, and/or vomiting.*

Muscle cramps are commonly associated with dehydration. A well-balanced food plan with regular drinks of a variety of fluids will prevent most episodes of muscle cramps. For athletes that may have repeated incidences of muscle cramps it may be necessary to include more salt on your food for 24-48 hours before a game. Some recommend more dill pickles. Some research indicates increasing your calcium may help. So increase your consumption of calcium-rich orange juice, low-fat milk, yogurt, cheese, broccoli, and almonds to get more calcium in your diet. It has also been found beneficial to increase your intake potassium (vegetables, bananas, cantaloupe, honey-dew melons, grapefruits, potatoes, tomato & prune juice), magnesium (green leafy vegetables, whole grains, nuts, beans, legumes) to help in reducing chronic muscle cramps.

Food Pyramid



GRAINS	VEGETABLES	FRUITS	MILK	MEAT/BEANS
<p>Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day.</p> <p>1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or ½ cup of cooked rice, cereal or pasta</p>	<p>Eat more dark green veggies like broccoli, spinach, & other dark leafy greens</p> <p>Eat more orange veggies like carrots & sweet potatoes</p> <p>Eat more dry beans and peas like pinto beans, kidney beans & lentils</p>	<p>Eat a variety of fruit</p> <p>Choose more fresh fruit, but frozen, canned & dried is good too</p> <p>Go easy on fruit juices</p>	<p>Go low-fat or fat-free when you choose milk yogurt, and other milk products</p> <p>If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods & beverages</p>	<p>Choose low-fat or lean meats & poultry</p> <p>Bake it, broil it, or grill it</p> <p>Vary your protein routine – choose more fish, beans, peas, nuts, & seeds</p>

Food Pyramid

How Much to Eat Daily

GRAINS	VEGETABLES	FRUITS	MILK	MEAT/BEANS
1,200 calories				
Eat 4 ounces each day Make at least 2 oz. whole grain	Eat 1 ½ cups each day	Eat 1 cup of mostly fresh fruit each day	Consume 3 cups of low-fat source each day	Eat 3 ounces of lean each day
1,800 calories				
Eat 6 ounces each day Make at least 3 oz. whole grain	Eat 2 ½ cups each day	Eat 1 ½ cups of mostly fresh fruit each day	Consume 3 cups of low-fat source each day	Eat 5 ounces of lean each day
2,200 calories				
Eat 7 ounces each day Make at least 3 ½ oz. whole grain	Eat 3 cups each day	Eat 2 cups of mostly fresh fruit each day	Consume 3 cups of low-fat source each day	Eat 3 ounces of lean each day
3,000 calories				
Eat 10 ounces each day Make at least 5 oz. whole grain	Eat 4 cups each day	Eat 2 ½ cups of mostly fresh fruit each day	Consume 3 cups of low-fat source each day	Eat 7 ounces of lean each day

IMPORTANT: For any questions, contact us at extremeathletics@cox.net

"Reach beyond your abilities or you will never reach your potential"



Smoothie Recipes

Fruit Smoothie Basics

Ingredients

- * 1 cup plain or flavored yogurt
- * ½ cup low-fat milk
- * ½ tsp vanilla extract (optional)

Add Any Two

- * 1 tbs frozen juice concentrate
- * 6 strawberries
- * 1 peach or banana
- * ½ cup canned peaches or pears
- * ¼ cup raspberries
- * ¼ cup coconut (sweet or flake)
- * ¼ cup pineapple chunks
- * ¼ cup blackberries
- * ¼ cup blueberries

Directions

Put the chosen ingredients into a blender and blend on high until smooth. Store in refrigerator. **Spoilage occurs within a few hours for most smoothies even when refrigerated!**

Nutrition Facts (approximate)

Serve 3-1 cup/Calories 227/Carb 37/Pro 6/fat 1/Sodium 93/Calc 227

Peanut Butter Cup Smoothie

Ingredients

- * 1 cup low-fat chocolate milk
- * ½ cup low-fat vanilla yogurt
- * 1 cup FROZEN sliced banana
- * 2 tbs smooth peanut butter
- * 1 cup vanilla frozen yogurt

Nutrition Facts

Serve 3-1 cup/Calories 201/Carb 31/Pro 9/fat 6/Sod 113/Calc 201

Melon Magnificent

Ingredients

- * 6 cups-1" FROZEN honeydew or cantaloupe chunks
- * 1 cup orange juice
- * ½ cup canned peach or pear nectar (any grocery store)
- * ½ cup vanilla ice cream
- * ½ cup vanilla yogurt
- * 1 tsp lime juice

Nutrition Facts

Serve 6-1 cup/Calories 136/Carb 30/Pro 3/fat 2/Sod 55/Calc 51

Cereal Smoothie

Ingredients

- * ½ cup Grape Nuts cereal
- * ½ cup low-fat vanilla yogurt
- * 2 cups juice (choose one: orange, apple, pineapple)
- * 1 banana
- * 1 cup ice

Nutrition Facts

Serve 6-1 cup/Calories 185/Carb 40/Pro 5/fat 2/sodium 54/Calc 203

Raspberry Pleasure

Ingredients

- * 1 ½ cups fresh or frozen raspberries
- * 1 ½ cups reduced calorie whipped topping
- * 1-8 oz carton low-fat lemon yogurt
- * ice filled in blender to 4 cup level

Nutrition Facts

Serve 4-1 cup/Calories 144/Carb 39/Pro 3/fat 1/Sod 52/Calc 107

Hawaiian Delight

Ingredients

- * 1 cup low-fat vanilla yogurt
- * 2 cups coconut sorbet or ice cream
- * ½ cup chilled pineapple juice
- * 2 large bananas
- * ¼ cup sweetened flaked coconut

Nutrition Facts

Serve 4-1 cup/Calories 314/Carb 53/Pro 5/fat 11/Sod 58/Calc 232

Banana Cream Pie Smoothie

Ingredients

- * 1 large RIPE banana cut into slices
- * 1 cup low-fat vanilla yogurt
- * ½ cup low-fat milk
- * ½ sheet whole wheat graham cracker crumbs (may like more)
- * 1 tbs non-fat dry milk
- * ½ tsp vanilla extract
- * 3 ice cubes

Directions

Arrange banana slices on a baking sheet & freeze for about 1 hour until firm. Blend all ingredients, sprinkle crumbs on top

Nutrition Facts

Serve 2-1 cup/Calories 216/Carb 40/Pro 10/fat 3/Sod 145/Calc 315

Smoothie for the Parents

Mocha Frappe

Ingredients

- * 1 cup strong-brewed coffee
- * 2 tbs sugar
- * 1 tbs low-fat milk
- * 2 tbs chocolate syrup
- * 3 tbs THAWED fat-free frozen whipped topping (may like more)
- * 1 tsp chocolate shavings
- * 1 ¼ cups low-fat milk

Directions

Stir coffee, sugar & 1 tbs milk in a small glass measuring cup. Pour into ice cube trays & freeze 2 hours + until firm. Blend coffee ice cubes, 1¼ cup milk & chocolate syrup until smooth. Pour into serving cups, add shavings & whipped topping evenly.

Nutrition Facts

Serve 3-1 cup/Calories 133/Carb 24/Pro 4/fat 3/Sod 68/Calc 131

IMPORTANT: For the active athlete, see page 15 for homemade smoothie recipes intended for meal substitutes or an excellent supplement option for post-exercise/game refueling. Other alternative for smoothies can be purchased at the grocery store or online. www.Odwalla.com offers three good ones; Wholly Grain, Superfood & All Natural. www.Gatorade.com offers G Series Pro 01 Prime Nutrition Shake. www.Cytosport.com offers Muscle Milk-Collegiate (no other Muscle Milk drinks benefit the soccer athlete). For our favorite choice there is www.infinutrition.com where you make your own custom nutrition drink. For the athlete needing a little more we recommend blending one of these drinks with a banana. Additional recipes at www.fasttwitchathletics.com

Abbreviations

dia = diameter
fl oz = fluid ounce
g = gram
cal = calories
IU = International Units
lb = pound
mg = milligram
ml = milliliter
NA = not available
oz = ounce
pkg = package
sq = square
tbs = tablespoon
tsp = teaspoon
RDA = government's Recommended Daily Allowance
BW = bodyweight
Calc = calcium
Pro = protein
Sod = sodium

Volume

1 gallon (3.786 liters; 3,786 ml) = 4 quarts
1 quart (0.946 liter; 946 ml) = 4 cups or 2 pints
1 cup (237 ml) = 8 fluid ounces or 16 tablespoons
2 tablespoons (30 ml) = 1 fluid ounce
1 tablespoon (15 ml) = 3 teaspoons
1 pint = 2 cups

Weight

1 pound (16 ounces) = 453.6 grams
1 ounce = 28.35 grams

Tips for Estimating Amount of Food Consumed

This table lists some handy tips to help you estimate the amount of food you eat when you cannot measure or weigh it.

Breads and grains

1 cup cooked cereal, pasta, rice = volume of cupcake wrapper or half a baseball
4-oz bagel (large) = diameter of a compact music disc (CD)
medium piece of cornbread = medium bar of soap

Fruits and vegetables

medium apple, orange, peach tennis ball
1 cup dried fruit = golf ball or scant handful for average adult
1 cup fruit or vegetable = half a baseball
1 cup broccoli = light bulb
medium potato = computer mouse
1 cup raw leafy greens = baseball or fist of average adult
1 cup = 6 asparagus spears, 7 or 8 baby carrots or carrot sticks, or a medium ear of corn

Meat, fish, and poultry, cooked

1 oz = about 3 tbsp meat or poultry
2 oz = small chicken drumstick or thigh
3 oz = average deck of cards, palm of average adult's hand, half of a whole, small chicken breast, medium pork chop

Cheese

1 oz hard cheese = average person's thumb, 2 dominoes, 4 dice

Other

2 tbsp peanut butter Ping-Pong ball
1 cup nuts level handful for average adult
1 cup half a baseball or base of computer mouse
1 cup tennis ball or fist of average adult

Note: The serving size indicated in the Food Guide Pyramid and on food labels is a standardized unit of measure and may not represent the portion of food a person actually eats on one occasion.