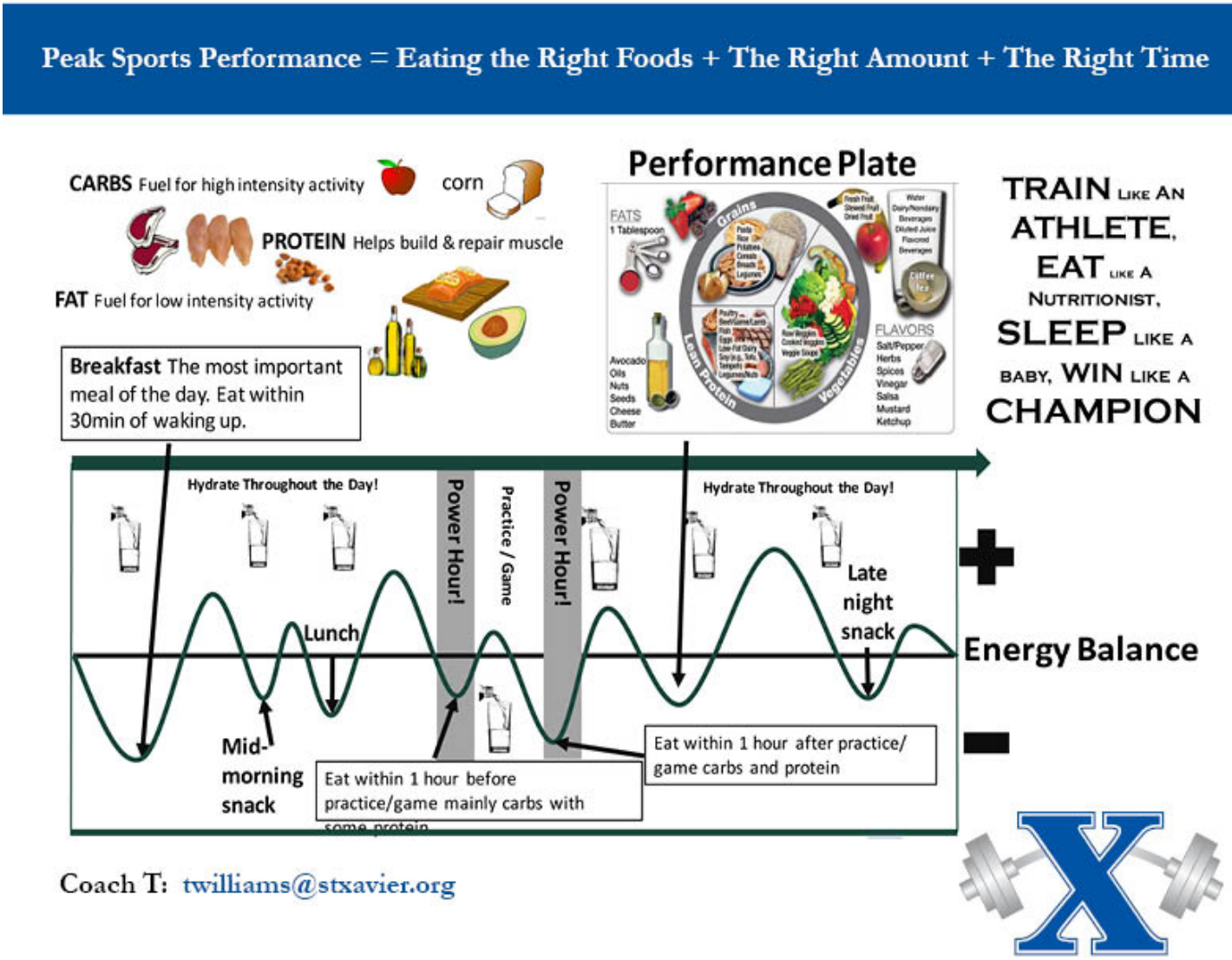


Unlike common people, you have uncommon goals and dreams that require 100% of your effort, determination, and discipline. You are beginning to understand how important this is in your physical conditioning, but you must also understand that these same principles apply to your eating habits. Nutrition is the one component of an athletic program where most people are misinformed or misunderstood. Everywhere you turn, you hear or read about someone who had gained or lost 20 pounds in one week. This type of information is misleading and dangerous. As athletes, you must know facts about diet and dietary habits, in order to perform at your optimum level. You cannot run a high-performance race car on kerosene. Excess weight in the form of fat reduces speed and endurance of any athlete.

FUELING FOR SPORTS

All sports can be affected by what, when and how much an athlete eats and drinks. Athletes need to apply the same effort to proper fueling as they give during practices and competition. Players sometimes neglect nutrition, which can result in poor performance.

Proper nutrition is extremely important for football, basketball, lacrosse, soccer, and rugby players. Because these sports require short bursts of energy, eating enough carbohydrates is critical. As an athlete, you are always looking for an edge over your opponent. Nutrition is that edge. It does not only impact strength, speed, and stamina, but recovery as well. You, as athletes, are responsible for taking control. You must provide your body with optimal body fueling. A player who comes to practice without having eaten breakfast or lunch, or skimps on fluid intake during hot summer practices, is not going to reach his full potential – which ultimately affects the performance of the team.

The Basic Six

1. Carbohydrates
2. Fats
3. Proteins
4. Vitamins
5. Minerals
6. Water

CARBS ARE KEY!

The aforementioned sports are primarily stop-and-go sports with short bursts of intense effort, followed by rest. Therefore, the primary fuel for them is carbohydrates. It is the best healthy food you can eat. I have often referred to it as the jet fuel of food. Simply stated, your diet should be 2/3 carbohydrates and 1/3 protein, with an emphasis on moderate fat. Carbohydrates-containing foods with lower fat should be emphasized example: bagels over doughnuts, mashed potatoes over fries, grilled chicken over fried, frozen yogurt over ice cream.

Upping the amount of carbohydrates in your diet will provide you with more available energy during practice and games. Less fried foods often decrease the chance of an upset stomach, which may also boost performance.

During Two-a-days/Pre-season, carbohydrates must be the main fuel source. Players will not recover in time for the next practice unless carbohydrate intakes are adequate. **Watch your protein intake.** While protein is needed in an athlete's diet to build and maintain muscle mass, excess protein consumption will be stored as fat and may dehydrate the body. For example, turkey and cheese roll-ups, fruit, vegetables, Gatorade bars etc., are healthy food choices.

PROTEIN

Protein is primarily used to rebuild and repair muscle. It is broken down into amino acids for the muscles and other tissues to use. It is a poor source of energy. Most people consume far more protein than they need. Excess protein is converted to fat and stored in the body or excreted in

your waste products. Good sources of animal protein include beef, pork, seafood, turkey, chicken, dairy products (milk, cheese, yogurt, eggs, eggbeaters, egg whites). Good sources of plant protein include beans, cereal, bread, crackers, rice, pasta, tofu, soy, almond, rice or hemp milk, nuts, seeds, nut butters, hummus, bean dips, refried beans, vegetables, almond-based powders, and bars.

FATS

Fat is a poor source of energy. It takes the body a long time to break it down into usable fuel. If the body cannot break it down to a usable source of energy it stores it as fat in the body. There are four types of fat, saturated, monounsaturated, polyunsaturated and trans fats. Saturated fats include animal fats, butter, margarine, cream, salad dressing, cheese, shortening, whole milk and fried foods. Monounsaturated fats include olive oil, peanuts and their oils, avocados, cashews, sunflower oil, and poultry. Polyunsaturated fat sources are fish, fish oil, corn oil, pecans/walnuts, almonds, mayonnaise, and sesame oil. Trans fats are cookies, crackers, pastries, microwave popcorn, muffins, processed meats, fast foods, some cereals/cereal bars, and chips.

VITAMINS

Vitamins are chemicals that sustain life. They serve as metabolic catalysts that regulate all chemical reactions in the body. People often take vitamins to give them more energy. **Vitamins do not provide energy**. Food provides you with energy …not vitamins. A balanced diet will provide more than the minimum daily requirements. If you are concerned, take no more than one multi-vitamin. Mega dosing any vitamin is unnecessary and potentially harmful.

MINERALS

Minerals have been described by Dr. Charles Marshall as inorganic compounds (usually salts and oxides). The Food and Nutrition Board considers 16 minerals essential for humans. Minerals form structures in the body. Bones, for example, are formed with the help of calcium. Minerals also regulate body processes. A balanced diet should provide you with all the minerals you need.

Athlete Recommended Snacks (pre-game and postgame)

The food and beverages an athlete consume before and after competition and practice is just as important as what is consumed during an event.

Snacks • Pretzels • Fig Newton's • Graham Crackers • Rice Cakes • Cut-up Fruit (oranges, apples, bananas) • Crackers • Bagels

• Granola Bars • Cliff Bars/Power Bars • Raisins, Dried Fruit

Beverages • Water • Gatorade, Powerade, Biosteel, Liquid I.V. or other sports drinks • Fruit Juice

Items **NOT APPROPRIATE** before, during or after athletic competition: • Soda pop or carbonated drinks of any kind • Candy • Cakes or cupcakes • Donuts or muffins • Chips • Cookies

PRE-GAME/LIFT MEALS

The primary goal for providing athletes with a pre-game meal is to fuel the body for competition. The best strategy is to choose lower-fat foods. As previously stated, fats take longer to digest, so high-fat meals can leave the athlete with a full, heavy stomach and not enough energy to perform at his best. When planning a pre-game meal early in the day try to avoid foods such as, fried

Sample Pre-Game Meal

Spaghetti with meat sauce + Italian bread + Fresh Salad + Green Beans + Cookies + Gatorade + Extra Water

meats, fried potatoes, bacon, and sausage. Instead, choose foods that favor leaner protein and carbohydrates such as bread, cereal, and toast. For afternoon/evening games choose grilled, baked, or broiled meats, tomato instead of cream sauce, low-fat milk, and baked or broiled, instead of fried, potatoes. Additional food options for pre-game meals include: • Turkey or ham subs, fruit salad, and frozen yogurt • Eggs, waffles, ham, fruit • Pasta with red meat sauce, grilled chicken, salad, and fruit • Smoothie, cereal, fruit • 8-ounce cuts of steak with carbohydrates on the side. • For beverages: sports drinks, juices, and water.

PRE-GAME/LIFT MEALS

Before you sit down for a meal, you should begin by replenishing your fluids and carbohydrates immediately following the game/lifting … sports drinks, pretzels, sports bars (containing the proper nutritional ratio), or fruit. This is usually the hungriest time for the players, some good choices include: • Steak kebabs, rice • Salmon, green beans, and corn • Roast beef, mashed potatoes, and salad • Hamburgers, grilled chicken sandwiches, baked potato, and juice

POST GAME/LIFT SNACK

For optimal recovery after competition/practice or lifting, you need to consume a protein-carbohydrate mix. The snack should contain 6 grams of protein and 35 grams of carbohydrates. Suggestions include peanut butter crackers, trail mix, yogurt with cereal, a bagel with cream

cheese or peanut butter, or a sports bar containing the right proportion. This snack should be consumed within 30 minutes after competition, practice or lifting for optimal benefit.

WEIGHT LOSS/GAIN

When it comes to weight loss or weight gain, you must do it in small increments. In order to add Lean Muscle Mass and discard Fat Mass you must combine a proper nutritional plan and strength training program. By adding or subtracting the extra 500 to 1000 calories you are allowing your body to change its composition.

TIPS FOR WEIGHT LOSS

To lose 1 to 2 pounds a week you must subtract 500 to 1000 calories per day to equal 3,500 calories per week. There is a formula you can use to help give you a guideline on how many calories you need to begin losing weight.

Multiply your body weight times 15 calories. Then subtract 500 calories. This will give you the approximate number of calories you must consume each day that week to lose one pound of fat. **For example:** (250 x 15=3750 Calories needed to maintain 250 lbs.). 3750-500(deduction per day for 7 days = one lb. of fat). 3250= number of calories to be consumed daily for one week.

To lose one pound of fat in a seven-day period you can only consume 3250 calories a day. At the end of the seven-day period, a one-pound loss will be observed. To lose an additional pound the next week, and each succeeding week, you **MUST** recalculate the formula based upon your new body weight. **For example:** 250 x 15=3735 -500 calories = 3235 calories a day for the next seven-day period.

You **MUST** also:

• Eat more fruits and vegetables • Limit fast food intake or make healthy fast-food choices • Drink more water • Avoid soda, candies, desserts, and other simple sugars. • Do not eat any fried foods. • Do not restrict carbs. • Do not skip meals but do decrease portion size. It is usually not the pasta that is the problem but the amount that you choose to eat! A little off the top at each meal works very well. For example, eat 25 chicken wings instead of 40, drink a 12-ounce beverage instead of a 20-ounce glass, or eat a 12-ounce steak instead of one that is 24 ounces. • Trim calories by cutting down on condiments and snacks. • Many find it easier to lose weight by eating smaller, more frequent meals that are more evenly divided throughout the day, instead of three meals. • Decrease calories from beverages by diluting juices, or iced tea, and using smaller glasses. • Include filling foods such as protein and foods that require chewing: salads, vegetables, a baked potato, meat, and fruits. • When eating fast food, choose regular instead of super-size meals. • Put snacks into a bowl instead of sitting down with the whole bag.

COMMON NUTRITION MISTAKES

• Not Eating Breakfast • Not drinking enough fluids • Not eating at regular intervals • Eating too much protein and short-changing carbohydrates

ADDITITIONAL HEALTHY CHOICES

• Bread, bagels, pita, muffins, biscuits or rolls with less than 2g of fat • Cold cereal with less than 2g of fat • Hot cereals • Corn tortillas • Air Popcorn – Unbuttered • Pretzels, Rice cakes • Pasta, Rice, Barley • Crackers with 1g of fat • Fresh vegetables • All fresh fruit • 1% Low fat or skim Milk • 1% Low fat Yogurt • Cheeses with 2 or fewer grams of fat/oz. • Frozen dairy desserts with 2g of fat or less ½ cup • Beef: Top Round • Beef: Eye of Round • Pork: Tenderloin • Chicken breast without skin • Egg Whites • All dried beans, peas • Canned Fish packed in Water

Setting Nutrition Goals with a little education, athletes can make changes that will be felt both on and off the field. The team should set nutrition goals together, such as:

• Drinking on a schedule • Refueling at half-time • Eating immediately after practices or games What to Eat: Athletes need carbohydrates to fuel hard-working muscles. Bread, pasta, rice, potatoes, fruits, and vegetables should be the bulk of an athlete's diet filling up 2/3 of the plate at every meal. Protein foods, such as meat, poultry, fish, eggs, dairy foods, nuts, soy products and beans, are essential for good health, but are not the primary fuel source for exercise, and so should occupy only 1/3 of the plate. All Day Fueling: Unlike professional athletes who practice during the day, younger athletes do not take the field or hit the gym until after school. Since bodies do not run well on empty, eating every 3 to 4 hours is necessary to properly fuel both the body and mind. Encourage your athletes to:

• Eat within 1 hour of waking up. • Eat something at lunch. • Snack before practice on a sports drink, energy bar, cereal, or granola bar. • Bring a post-exercise snack to eat before leaving the locker room. Good choices include an energy bar, bagel, crackers, or fruit with a sports drink.

TIPS FOR WEIGHT GAIN

To gain 1 to 2 pounds per week, you must add 500 to 1000 calories per day to equal 3,500 extra calories a week. Simply put you must take in more calories than you burn off! This formula should be used by athletes who are trying to add muscle, those who are having difficulty maintaining body weight, or those who are feeling fatigued and having difficulty recovering from workouts. A guideline is to multiply your body weight by 19 calories. Let us assume you weigh 250 pounds. Simply multiply your body weight by 19 calories. **For example:** Body weight-250x19 calories (standard number used) =4750. 4750+500=5250 calories for the next seven-day period. To gain an additional pound next week, and each succeeding week, you must recalculate the formula based on your new body weight.

You **MUST** also:

• Eat 5 to 6 meals that include 2 to 3 snacks a day (**FEED THE MUSCLE**). • Start a meal with food, not liquids, so have the sandwich first, and then the shake. • Replace low-or no-calorie beverages with juice, lemonade, milk, and sports drinks instead of water. • Try to eat one-quarter more at every meal and snack. • Keep snack food around to nibble on. • Add higher calorie foods to every meal: granola instead of sugared cereal. • Add nuts to cereal or snacks. • Eat bagels instead of bread. • Add more protein, but only four ounces more a day, through food, not supplements. Choose cheese, low-fat lunchmeats, and an extra piece of chicken, milk, and yogurt. Peanuts are not a very good source of energy.

Does this mean you should not eat peanuts, or any food high in fat? The answer is **no!** You can eat any food you want if you balance the percentage of calories you consume by the end of the day, the week, and the year. If you eat a meal high in fat, you should decrease your fat intake the rest of the day.

Remember, the ideal ratio of calories is 60% carbohydrate, 25% fat, and 15% protein. When you shop for food check the labels. Look for food that is low in fat and high in carbohydrate. Bring your calculator and figure out how many calories come from fat if it is not provided on the label.

Fast Foods

Fast food restaurants are a popular part of American cuisine. The goal of most fast-food chains is to satisfy the palate. Many of the foods are fried. If you stop at McDonalds on the way home and order a Filet-O-Fish Sandwich for your dining pleasure you might assume that fish is low in fat and a wise choice.

Fish is low in fat and a wise choice if prepared properly. Unfortunately, the Filet-O- Fish Sandwich is cooked in grease. It contains 26 grams of fat. That is 234 calories (26 x

There is nothing wrong with eating a Filet-O-Fish sandwich. With the rest of your meal try and balance your fat intake to a total of 25%. If you cannot do it that meal, try to balance your fat intake by the end of the day. If you eat out frequently you must be more selective in the foods, you eat and how the food is prepared.

Observe our sample menus. They were generated by a computerized nutrition program Nutritionist IV. They are provided only to give you some idea how much food can be consumed to meet a caloric goal. Below are sample menus to demonstrate the amount of food needed to compose a 2500, 3,500, 4,500, and 5,500 calorie menu.

2500 CALORIES	Serving /Cal	2500 CALORIES	Serving /Cal
Breakfast		**Breakfast**	
raisin bran cereal	2 cups 315	waffles w/butter & syrup	2 237
2% milk	4 oz. 60	2% Milk	4 oz. 60
orange juice	8 oz. 112	banana	1 104
Lunch		**Lunch**	
turkey sand. on wheat	2 588	Tuna sand. On wheat	1 365
pretzels thin twist	8 185	Vegetable beef soup	2 cups 160

Gatorade Sports Drink	20 oz. 140	orange	1 71
Dinner		**Dinner**	
Baked chicken breast	2 282	Spaghetti w/meat sauce	1 cup 334
Baked potato w/butter	2 500	Tossed garden salad	1 cup 35
Tossed garden salad	1 35	Lite Italian dressing	3 tsp. 15
Lite Italian dressing	3 tsp. 15	Italian bread	3 slices 255
Iced tea/sweetened	12 oz. 132	Gatorade Sports Drink	24 oz. 180
Snacks		**Snacks**	
apple	1 80	Fresh fruit salad	1 cup 131
Graham crackers	2 112	Baked potato w/butter	1 250
Popcorn air pop w/butter	1 cup 86	Peanut butter & jelly sandwich	1 321
TOTAL	**2,502 calories**	**TOTAL**	**2,518 calories**

3,500 CALORIES	**Serving /Cal**	**3,500 CALORIES**	**Serving /Cal**
Breakfast		**Breakfast**	
French toast w/but. /Syrup	2 pieces 319	Scrambled eggs	2 222
Orange juice	16 oz. 224	Wheat toast w/jelly	2 slices 201
banana	1 104	Apple juice	16 oz. 208
Lunch		**Lunch**	
Turkey sand on wheat	2 588	Cheese pizza	4 slices 704
Tossed garden salad	1 35	Lite Italian dressing	3 tsp. 15
Seedless grapes	1 cup 113	Gatorade Sports Drink	20 oz. 140
Fruit punch drink	12 oz. 177		
Dinner		**Dinner**	
Baked white fish w/lemon	12 oz. 308	Baked chicken breast	2 282
Baked potato w/butter	2 500	Mashed potato w/gravy	1 cup 217
Long grain white rice	1 cup 267	Corn whole kernel	1 cup 302
Green string beans	1 cup 60	Whole wheat roll	2 191
2 % milk	8 oz. 120	Sports Drink	20 oz. 140
Snacks		**Snacks**	
Corn flakes	1 cup 120	Sports Drink	24 oz. 180
2% milk	4 oz. 60	apple	1 160
Fresh fruit salad	1 cup 131	Graham crackers	4 224
		Peanut butter & jelly sandwich	1 321
TOTAL	**3,512 calories**	**TOTAL**	**3,565 calories**

4,500 CALORIES	**Serving /Cal**	**4,500 CALORIES**	**Serving /Cal**
Breakfast		**Breakfast**	
Frosted Flakes	2 cups 298	Pancakes w/but. & Syrup	4 520
2% Milk	8 oz. 224	Boiled Eggs	2 164
banana	1 104	English Muffin w/jelly	1 187

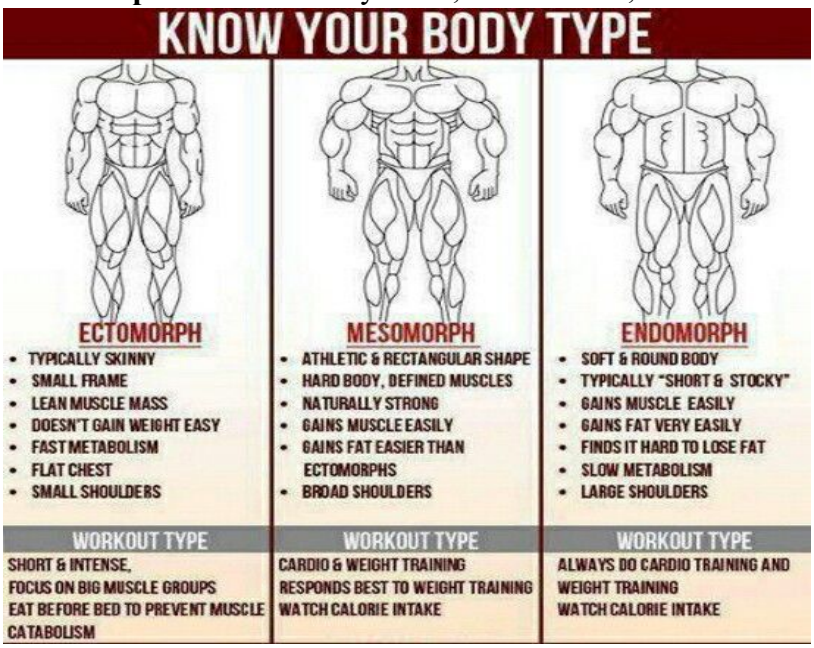
Orange Juice	16 oz. 224	Orange	1 71
Lunch		**Lunch**	
Roast Beef Sand. w/Gravy	1 421	Tuna Sandwich on wheat	2 730
Baked Beans	1 cup 236	Chili	1cup 170
Thin Twist Pretzels	15 344	Ritz Crackers	15 270
Apple	2 160	Fresh fruit salad	1cup 131
Gatorade Sports Drink	24 oz. 180	Iced tea/sweetened	16 oz. 176
Dinner		**Dinner**	
Spaghetti w/meat sauce	2 cups 668	Meat Loaf	½ lb. 435
Tossed garden salad	1 108	Mashed potato w/gravy	1 cup 217
Whole wheat roll	4 381	Mixed Veg. w/butter	1 cup 164
Iced tea/sweetened	16 oz. 176	2 % Milk	8 oz. 120
Snacks		**Snacks**	
Seedless grapes	2 cups 226	Grape/Tart Cherry Juice	12 oz. 255
Chunky Chicken soup	1.5 cups 267	Banana	2 208
Raisin Bagel w/peanut butter	1 292	Animal crackers	20 160
		Peanut butter & jelly sandwich	1 321
TOTAL	**4,502 calories**	**TOTAL**	**4,509 calories**
5,500 CALORIES	**Serving /Cal**	**5,500 CALORIES**	**Serving /Cal**
Breakfast		**Breakfast**	
Pancakes w/but. /Syrup	4 pieces 520	Wheaties Cereal	2 cups 202
Scrambled Eggs	2 222	Banana	1 104
Wheat Toast w/Jelly	2 201	Orange juice	16 oz. 224
Grape Juice	12 oz. 255		
Lunch		**Lunch**	
Turkey sand on wheat	2 588	Cheese pizza	4 slices 704
Potato Salad	1cup 253	Lite Italian dressing	3 tsp. 15
Banana	1 104	Gatorade Sports Drink	20 oz. 140
Gatorade Sports Drink	24 oz. 180	Tossed garden salad	1 35
Orange	1 71	Fresh fruit salad	1 cup 131
Dinner		**Dinner**	
Sirloin Steak	8 oz. 688	Baked white fish w/lemon	12 oz. 308
Baked potato w/butter	2 500	Baked potato w/butter	2 250
Mixed Veg. w/butter	1 cup 164	Long grain white rice	1 cup 267
Tossed garden salad	1 35	Corn on the cobb w/butter	2 236
Ranch Salad Dressing	2 tbls. 108	Cornbread	2 pieces 210
2 % milk	8 oz. 120	2 % milk	16 oz. 240
Snacks		**Snacks**	
Blueberry muffin	1 110	Peach	2 90
Fresh fruit salad	2 cups 262	Chocolate pudding	1cup 320
Cheese pizza	2 slices 352	Tuna sandwich on wheat	1 365
Seedless grapes	2 cups 226	Raisin bagel w/peanut butter	2 564
Fig newton cookies	6 318	Grape Juice	24 oz. 510
		Peanut butter & jelly sandwich	1 321
TOTAL	**5,509 calories**	**TOTAL**	**5,501 calories**

POSITION SPECIFIC (BODY TYPES)

Endomorphs- 40% Carbohydrates, 30% Protein, 30% Fats

Ectomorphs-60% Carbohydrates, 30% Protein, 10% Fats

Mesomorphs- 50% Carbohydrates, 30% Protein, 20% Fats



Athletes come in all shapes and sizes. Each position requires different sizes, strength levels, and skills. In addition, height, weight, and body composition has been shown to play a role in player performance and injury risk. Endomorphic body types such as Offensive and Defensive Linemen in football, Forwards in Rugby or a Goalkeeper in Lacrosse come to mind. Out of all the playing positions, the experts agree that this body type is in the greatest need of nutritional guidance. Because of their larger size, they tend to have poor flexibility and agility. Heavy athletes with higher percentages of body fat can compromise their speed and agility and may not be able to endure four quarters of high intensity competition. High school athletes with higher body fats have a 2.5 times greater injury risk than leaner players. During games, these athletes will use 70 percent of their immediate energy system and 30 percent of their anaerobic glycolysis system. Since the calorie needs of bigger athletes of this body type can often exceed 6,000 calories a day, it may be a challenge to consume all the calories in whole foods. High calorie mass-gainers and pre- and post-workout shakes, or bars are essential supplements to have on hand.

MORE CALORIES, LESS FAT

These athletes need to consume a lot of calories, but many need to curtail their fat intake. Some suggestions for these players:

- High calorie sub sandwiches with lean meats, cheese, veggies, and light mayonnaise

- Trail mixes with almonds, pistachios, walnuts, and dried fruits.
- Peanut butter and jelly sandwiches
- High calorie cereal like granola with dried fruits, nuts, and low-fat milk
- Lasagna and casseroles prepared with lean meats and low-fat milk cheese
- Breaded white meat chicken cutlets or chicken parmesan with melted low-fat cheese and red sauce.
- Corn bread prepared with healthy oils and real corn.
- Hearty chowder soups and chilies prepared with beans, corn, and potatoes
- Super-sized smoothies with fresh high calorie fruits like bananas, 100% fruit juices, nut butters, and whey protein powders.
- High calorie sports bars with healthy fats from nuts, flax, whole soy, or whey protein, and fruit, brown rice syrup, or agave sugars.

EATING ON THE RUN

Breakfast: • Pancakes, waffles, or French toast w/syrup – no butter • Egg sandwich – no cheese • Unbuttered English muffin, bran muffin, bagels or toast w/preserves, jelly, or apple butter • Low-fat milk or yogurt w/fresh fruit and a bagel • Low-fat granola bars – Kellogg's or Nature Valley • Dry or cooked cereals w/or w/o milk w/fresh or dried fruit • Pita bread stuffed with peanut butter (high in calories) and raisins and cottage cheese, or veggies and low-fat cheese.
Lunch: • Vegetables or chili stuffed potatoes • Salad bars: use low fat dressings, veggies, dried beans, beets, carrots, pasta, and add crackers, rolls, or bread • Pack lunches: Sandwich whole grain bread, fruit, fig bars, and vegetables or soup • Pastas with meat or meatless sauce • Tacos without sour cream • Baked or broiled meats instead of fried • Fantastic soups or pasta meals that can be reconstituted water • Fast Food restaurants: Grilled chicken sandwiches, grilled hamburgers, roast beef sandwiches, baked potatoes, or salad bars (no mayonnaise, special sauce, butter, sour cream etc.) • Thick crust pizzas with veggies – no extra cheese

Dinner: • Meats should be baked, broiled, or grilled instead of fried • Pasta with clam sauce or marinara sauce • Shellfish in tomato sauce or steamed without butter • Chicken breast without the skin with rice and vegetables • Stir fry dishes with lean meats and lots of vegetables in minimal oil • Grilled salmon, tuna, swordfish, or mackerel

Snacks: • Whole grain crackers • Graham crackers • String cheese • Low-fat yogurt • Dry-roasted nuts • Bread sticks • Pretzels • Dry cereal • Fresh fruits • Dried fruits • Fruit juices • Bagels

Watch the caffeine – It lowers blood sugar and can make you hungrier. It is also a diuretic and can be dehydrating.

HYDRATION:

The human body is made up of 45% to 75% water. Most of the water in the human body (70%) is stored in the muscle tissues. Water helps to transport nutrients, rid the body of waste, regulate body temperature, lubricate joints, cushion vital organs, and provides structure to the skin and

body tissue. Most athletes live in an under-hydrated state, which significantly decreases the efficiency of all systems in the body.

Drink Up! All athletes benefit when the body is optimally hydrated. This is not just a game day issue, but a daily priority. To prevent dehydration, especially in hot, humid environments, athletes need to drink often and enough.

• You **MUST** rehydrate your body by drinking **80%** of your body weight per day. For example: If you weigh 200 pounds you must drink 160 fluid ounces per day. Non-caffeinated, Non-carbonated and Non-alcoholic fluids. Remember, alcohol is a diuretic, which will cause the recovery process to take 3 times as long.

Recommend sports drinks over water, because sports drinks taste great, contain electrolytes, like sodium, and may help prevent cramping. Players prone to cramping should use extra salt during periods of abnormal sweating. At their testing laboratory in Chicago, Gatorade researchers have discovered that we lose sodium in significantly greater amounts than other minerals. Salty snacks (pretzels) and additional table salt are recommended during periods of high heat and humidity.

You also need to drink during cold weather. Often the urge to drink when you are cold is suppressed, but proper hydration is still critical.

• Weigh players before and after practices to determine individual fluid losses and monitor them to replace every pound lost by drinking at least 20 ounces of fluid. • Ask athletes to bring their own sports bottles and drinks so their favorite fluid is readily available. • Remind athletes that spitting out fluids does not hydrate the body! • It is important that you **see what you pee!** The goal is light-colored urine and lots of it!

Often at dinner parties the topic of conversation turns to fitness and supplements. You can join in and tell your friends that the best supplement you take is water. Recommend sports drinks over water, because sports drinks taste great, contain electrolytes, like sodium, and may help prevent cramping. • Players should weigh-in before and after practices to determine individual fluid losses to replace every pound lost by drinking at least 20 ounces of fluid. • Ask athletes to bring their own sports bottles and drinks so their favorite fluid is readily available. • Remind athletes that spitting out fluids does not hydrate the body!

Dr. Pat Mann, former nutrition consultant for the Washington Capitals Hockey Team, states, “There is no fountain of youth, no magic pill or potion to enhance performance. But there is water.” She adds, “...few things cripple athletes faster than dehydration.”

You do not need to be in an exhausted state to negatively impact your performance. Dr. Mann states, “A one to two percent drop in body weight due to water loss can cause a 15% decrease in performance.”

Water Tips for athletes.

How do you know if your water intake is adequate? A rule of thumb you can use is the color of your urine. It should be almost clear in color. If it is bright yellow, you are not drinking enough water. Another rule of thumb is to replace each pound of weight lost with a pint of water. A pint of water weighs approximately one pound.

When the body gets hot it perspires in an attempt to cool the blood down. About 50% of your body heat is lost through your head. During hot weather, you should remove your helmet whenever possible (TV time-outs, measuring for a first down). Expose your skin as much as possible (pull your socks down when you are off the field, remove your pads at half-time, replace sweat drenched clothing, do not wear a bandanna).

Thirst is not a reliable indicator of proper hydration; those who work out tend to replace only about two-thirds of the water they have lost during exercise. You also need to drink during cold weather. Often the urge to drink when you are cold is suppressed, but proper hydration is still critical.

An athlete should drink 20 ounces of water two hours prior to kickoff, and about eight ounces every 15 minutes throughout the game.

Tips for Hydration: Athletes perspire profusely every day. You lose additional water by simply breathing. This water must be replaced. You should consume at least two extra quarts (eight 8-ounce glasses) of water every day above and beyond what you sweat to remain properly hydrated.

Before you exercise: Start 1-2 hours before you lift/practice or competition; drink 10-20 ounces of fluid. Fifteen minutes before competition, drink 8-16 ounces of fluid.

During exercise: Drink 4-8 ounces of cool fluid every 10-20 minutes.

After exercise: Keep drinking fluids beyond the “thirsty” feeling, to ensure proper hydration. Sports drinks will help to replenish energy stores quickly after exercise.

1. Always drink cool fluids if available, because it empties from the stomach faster than warm fluids.

2. Urinate clear before practice

3. If you feel or see any of the following symptoms locate a coach or athletic trainer immediately:

• Sudden dizziness, weakness, faintness, and headache. • Warm, blotchy skin and NO SWEATING! • Rapid heartbeat and/or a sudden stomachache (vomiting) • Uncontrollable muscle cramps.

REST & RECOVERY:

- Get plenty of rest

- Sleep is the most important factor in recovery and performance
- Athletes should get 7-9 hours of sleep every night
- It helps if the room is dark and cold.

BENEFITS OF TART CHERRY JUICE:

- Anti-inflammatory: Tart cherry juice contains polyphenolic compounds like anthocyanins, which may help fight inflammation caused by arthritis and gout.
- Exercise recovery: Tart cherry juice may help reduce pain and speed up recovery after exercise.
- Sleep: Tart cherry juice contains melatonin and tryptophan, which may help improve sleep quality and increase sleep time.
- Blood pressure: Tart cherry juice may help lower blood pressure.
- Immune system: Tart cherry juice contains antioxidants, vitamin A, and vitamin C, which may help improve immune health.
- Cancer: Tart cherry juice may help prevent or slow cancer growth.
- Brain function: Tart cherry juice may help improve brain function

Supplements

Supplements are not more effective than the food you eat. If they were, scientists would publish this information for all to see. Unfortunately, few athletes review the scientific literature. Muscle magazines, literature handed out in the health food store, and opinions of other athletes are not very reliable sources.

Can You Pass the Test?

Before taking any supplement, ask yourself the following questions:

1. Do you eat something for breakfast seven days a week?
2. Do you eat at least three meals a day?
3. Do you monitor the number of calories you consume?
4. Do you restrict your intake of fat calories to 25% of your total diet?
5. Do 60% of your calories come in the form of carbohydrates?
6. Do you eat from all food groups?
7. Do you eat at least three to five servings of fruit a day?
8. Do you eat at least one vegetable daily?
9. Do you consume a well-balanced pre-game/workout and post-game/workout meal?
10. Do you drink 80% of your body weight in fluid ounces per day?

If you cannot answer yes to each of the questions listed above, why take a supplement? Do not expect supplements to replace the need for a daily balanced diet. Some athletes eat poorly, do not get enough rest, and assume taking a supplement will compensate for their poor habits. The definition of the word **supplement** is *in addition to*. The definition does not state instead of, which is how many people view supplements.

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