

Oswego East Distance

Nutrition for Peak Performance



Why is it important to fuel your body with the right stuff?

It may seem that eating is just a small part of how you perform in competition, but it is actually very beneficial if you fuel your body with the right stuff.

- Nutritious food will give you the energy to run faster and to jump/throw further
- Vitamins and minerals play key roles in converting your food into energy
- Helps you recover quicker from hard workouts and strenuous competition
- Will facilitate muscle growth
- Will more likely prevent illness
- Better for your long term health

Calorie Needs

Your body is like a car. If you don't fuel your car with enough gas, the car is going to stop sooner. Your body follows the same principles. If you don't eat enough, your body won't reach as far as you want it to. Eating too many calories may result in unwanted weight gain. It is important to find the right balance of calories for the type of event you compete in and your individual needs. Everyone is different in regards to their body shape, size, and metabolism, so work with what you have and not against it. Not only do you burn calories because you are athletes, but you also need energy just to exist. On top of that, you are in school ALL DAY (Not fun, I know), you may deal with stress from everyday life, and surprisingly some of you are still growing.

- High-school distance runners will need 2,500-3,000 calories
- Sprinters will need 2,200-2,500 calories
- Throwers/Jumping events-2,000-2,400 calories

Most of your calories should come from nutritious food sources since they will provide vitamins and minerals that help you use energy. As athletes, the bulk of your diet should consist of carbohydrate. It's ok to have junk foods, but don't make it the main part of your diet. The key to any healthy diet is:

BALANCE
MODERATION
VARIETY

If you don't eat enough calories, your body will start breaking down muscle to use as energy. This will result in decreased strength and performance. Plus, your body will start to think you are starving and will conserve more fat while continuing to burn muscle. Not a good combination, so PLEASE eat 😊

Carbohydrates

Carbohydrates are the main source of energy for an athlete. Carbs will turn into glucose when your body digests it. Glucose is the gas that fuels your muscles, especially in an all-out activity.

- Distance runners will need about 70% of foods as carbohydrate
- Sprinters 65-70%
- Throwers/Jumpers 60-65%

Eating enough carbs throughout the day will be stored as glycogen in the muscles, so glucose will be readily available to be broken down into energy. The liver also stores glycogen and will release glucose if blood sugars start to get low.

Whole grains and starchy foods are preferred over pure sugar since sugary foods don't have as many vitamins, minerals, and fiber. Sugary foods tend to raise blood sugars quickly. Blood sugars then drop resulting in the "sugar crash." This can make you feel really bad while you are working out or competing. Also, if not used right away sugar will be stored as body fat.

*** Carbohydrates***

Whole grain pasta

Brown Rice

Whole grain cereals

Baked potatoes

Sweet potatoes

Whole grain bread

Corn tortillas

Fruits

Beans

Pretzels

Bagels

Yogurt

Milk

Fruit Juices

Oatmeal

Granola Bars

Protein

Protein is essential in the diet, which means that you need to consume it in order for the body to function properly. Some athletes think they will build more muscle by eating tons of protein, but that is not the case. You build strong muscle by working the muscles out (push-ups, lifting, etc) and eating carbohydrate to provide the energy you need to do 60 push-ups instead of 30. Protein is important for athletes because it repairs muscles after intense exercise. It also helps keep your blood sugars level so you don't feel like crashing, and keeps you feeling fuller longer since it is harder to digest. Your body will use protein as a last resort for fuel if you didn't consume enough carbs. However, it will take it from the muscle. Your protein needs are calculated by your body weight. For a growing athletic teenager you will need:

0.7-0.9 grams of protein per body weight pound

To make it easier, just make sure that most of your meals consist of carbs with about 12-20% of that meal as protein.

Protein

Grilled, broiled, roasted, baked chicken

Turkey

Lean ham

Lean pork

Lean ground beef (85-95%)

Steak

Fish

Beans

Soy

Milk

Yogurt

Cheese

Nuts

Peanut butter

Eggs

Cottage cheese

Fat

Fat can be scary for some people because they believe that eating fat will lead to unwanted weight gain. That is true to a point, but fat is still an important part of the diet. Fat does many things for our body including:

- Production of hormones
- Provides structure and function for cells to work
- Protects organs
- Helps regulate temperature

Long distance athletes train their bodies so that they use more fat while exercising instead of carbohydrates. This is beneficial because the body will conserve glycogen for when the body needs to do more intense exercise (like your kick at the end of a race). Your diet should consist of 25-30% fat.

Choose healthy fats more often such as, monounsaturated and polyunsaturated fats. Saturated fats are linked to many diseases, so try to limit in the diet.

Healthy Fats

Olive oil

Canola oil

Peanut oil

Sesame oil

Soybean oil

Safflower oil

Corn oil

Fish

Nuts

Low-fat salad dressing

Avocados

Peanut butter

Seeds

Tofu

Soymilk

Vitamins and Minerals

Vitamins and minerals are found in all types of “natural foods,” and found in minimal amounts in processed foods. Fruits, vegetables, whole grains, lean meats, nuts, low-fat dairy are all excellent choices. The more natural the food, the more vitamins and minerals the food probably has. Vitamins and minerals aid the body in metabolizing food for energy. Certain vitamins are antioxidants, which can prevent many diseases and aid in soreness after working out.

Iron

Iron’s main role in the body is to bind oxygen to the blood cells to transport the oxygen to the muscles. Without oxygen, it would be very difficult to perform at your best. Distance athletes are more likely to have low iron for the following reasons:

- Blood cells breaking due to foot striking ground
- Lost through sweat and urine
- Not eating enough iron rich foods in diet
- Drinking too much tea and coffee – Caffeine

It’s a good idea to get ferritin levels checked at least once a year. Low ferritin levels can affect athletic performance even if you are not considered anemic. Vitamin C helps absorb iron into the blood, so eat iron rich foods with vitamin C to maximize absorption.

Iron

Lean red meats

Chicken

Fish

Pumpkin seeds

Black strap molasses

Enriched cereals

Enriched grains

Green leafy vegetables

Vitamin C

Citrus fruits

Tomatoes

Strawberries

Red peppers

Dark green vegetables

Potatoes

Calcium and Vitamin D

Calcium and Vitamin D work together to build strong bones and teeth. Other roles include proper muscle functioning and blood clotting. High-school females in general need more calcium than the general population since they're still growing. Strong bones will prevent stress fractures and vitamin D has shown to prevent a lot of diseases.

Calcium

Milk

Yogurt

Cheese

Cottage cheese

Green leafy vegetables

Ice cream

Pudding

Soy milk

Fish with bones

Fortified orange juice

Vitamin D

Milk

Yogurt

Fish

Fortified orange juice

Sunshine ☺

Hydration

Being properly hydrated will make you feel stronger and faster while competing. Water cools the body, replaces fluid loss, prevents heat stroke and dehydration, and allows for cells to work properly. Your performance can be severely impaired if not properly hydrated. Speed and strength both decrease and you will feel less energetic. Drinking too much water is not good either. So how do you know if you are properly hydrated? The key to staying hydrated is to never feel thirsty and that the color of your urine is pale yellow and odorless. Electrolytes should be replaced if you sweat a lot and on hot days. Electrolytes help in neuro-function and chemical balance.

Eating before Exercise

The goal is to eat an adequate amount of carbohydrates each day to be stored as glycogen in the muscles. Carbo-loading is a good idea a couple days before competition, not just the night before. Carbo-loading doesn't mean you stuff your face with pasta the night before because it can leave you feeling sick the next day. You should be eating enough carbs everyday.

Each day you should be:

- Eating 3 meals with 2- 3 snacks in between
- Eat breakfast
- Eat at least 3 different food groups at each meal
- Try to eat regularly throughout the day (every 2-3 hours)

Everyone is different with how they handle certain foods so you need to find what works for you. Never experiment with new foods the day of competition unless you want to take the chance of getting sick. Try eating foods before practice to see how your stomach handles it instead. Not only are certain foods better for some people, but the timing of when they eat their meals can be different.

A general guideline is:

- Eat a larger meal 3-4 hours before competition (about 300-600 calories)
- Eat smaller meals 2-3 hours before competition (200-400 calories)
- If you feel hungry 1 or 2 before competing, eat a small carbohydrate snack such as handful of pretzels or fruit snacks.
- Sip on water throughout the day. Don't over drink water since you will be going to the bathroom frequently and it might upset your stomach.
- Put a small amount of electrolyte beverage mixed with water so that the sodium retains more water in your body for hydration.

Your pre-event meal should consist mostly of carbs. Protein and fat rich foods are harder to digest, which might make you feel sick later. Too much protein can increase fluid needs, which might result in dehydration. It's ok to have a little bit of protein and fat in the meal, but a huge cheeseburger or pepperoni pizza is probably not a good idea before competing.

Eating after Exercise

Recovery eating is one of the best things you can do to improve athletic performance. Try to eat at least a small snack within 30 minutes- 2 hours after exercise. Your blood is flowing quickly and the nutrients you eat will be delivered to the muscles more efficiently to start repairing small micro-tears that happened during the exercise. Again carbohydrate is the main food source you should eat after exercise since your muscles need the glycogen stores for tomorrow's workout. Protein is another nutrient that helps recovery since it helps repairs muscles. Fat is not important in the post-exercise recovery process. It actually slows down the recovery process since it slows the absorption of carbs and proteins. The recovery snack should consist of about

4: 1 ratio of carbs to protein.

On hot days and if you are an athlete that tends to sweat a lot, water and electrolytes should be the first nutrients consumed after exercising. You should make sure you drink plenty of water throughout the next couple of days to rehydrate your body. Even in the cold winter months it is important to stay hydrated since we are in buildings all day with the heat turned on. It can make you feel dry.

Post-Recovery Snacks

Chocolate milk

Granola bars

Yogurt

Bagel with peanut butter

Deli meat sandwich

Cheese and crackers

Oatmeal with fruits/walnuts

Smoothies

Injury Healing and Prevention

Stay well-nourished by eating enough and eating healthy. Focus on eating after exercise and staying hydrated. Here are some nutrients for injury healing:

- Calories- energy needed for healing
- Protein- muscle repair
- Vitamin C- joint repair and collagen synthesis
- Zinc- same as vitamin C
- Calcium, phosphorous and magnesium- skeletal repair
- Omega 3- anti-inflammatory

Sample 2,700 Calorie Meal Plan

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast 1 large Banana 1 slc Raisin toast w/ 2 tsp margarine 1 cup Cereal 1 ½ cup skim Milk	Breakfast 1 slc Rye bread w/ 2 tsp margarine or 1 Tbsp fruit spread ¾ cup oat-type Cereal, ¾ cup skim Milk 1/2 Melon, raw 1 cup Grapefruit juice	Breakfast 1 Bagel, sesame seed 2 Tbsp Cream cheese, low fat 1 1/2 cup Oatmeal, cooked 1/2 cup Skim Milk 1/2 cup Peaches, canned, light ¾ cup Grapefruit juice	Breakfast 1 slc wheat bread w/ 2 tsp margarine & 2 Tbsp fruit spread 1 Fried egg 1 oz of cheese 1 link (about 1 1/2 oz) Sausage, lean or turkey 1 Orange ¾ cup Milk, skim	Breakfast 2 Belgian Waffles 2 Tbsp Pancake syrup, low calorie 2 tsp Margarine, tub 1 cup Skim Milk ½ C Strawberries	Breakfast 1 cup Corn flakes cereal 1 cup Skim milk 1 slc Wheat bread w/ 1 Tbsp creamy peanut butter 1 Pear	Breakfast ¾ cup Raisin Bran cereal 1 cup Skim Milk ½ Bagel, cinnamon & raisin 1 Tbsp peanut butter, plain 1 Kiwifruit 1 cup Grapefruit juice
Snack 15 Crackers, wheat, unsalted 2 Tbsp Peanut butter	Snack 1 Cup Chicken gumbo soup 1 ½ C Salad with 2 T light dressing 1 slice bread	Snack 10-18 Pretzel Twists 1 cup Orange juice, calcium fortified	Snack 1 Wheat Tortilla 1 Tbsp jelly or honey 1/2 Grapefruit or 1 Apple	Snack Smoothie ½ C low-fat yogurt 1 C fruit juice ½ C -1 C fruit, fresh, frozen or canned Sweetener as desired	Snack 1 cup Apple juice 1 Peach	Snack 1 cups Apple-grape-raspberry cocktail juice drink Sports Bar or Fruit/Oat Bar
Lunch 1 Apple, sliced, w/skin 1 C Spaghetti, ½ Cup Marinara Sauce 1/2 cup Beans 1 slc Italian bread 2 tsp margarine 1 1/2 cup Salad: 1 cup Lettuce,	Lunch Noodles w/tuna & vegetables: 1 1/4 cup Egg noodles, cooked w/out salt, 1/3 cup Green peas, 1/2 cup Sweet red peppers, 1/4 cup Tuna in water, 1 Tbsp low fat Mayonnaise 1 oz Roll 1/2 cup Strawberries	Lunch 1 Deli sandwich: 1 Hard roll, 4 oz lean turkey or Chicken breast, 1 oz Cheddar cheese, low fat ¾ cup Lettuce, shredded 2 Tomatoes, sliced ¾ cup	Lunch 1 1/2 cup Fresh fruit salad, w/apples, bananas, grapes, oranges & pears Roast Beef Sandwich: 2 Bread, 3 oz lean meat 1 Tbsp light mayo, lettuce 6 oz low fat Yogurt	Lunch 2 pce Cheese pizza (1 pce = 1/8 of 12 in pizza) 2 cups Tossed salad with lettuce, tomato, carrots, cucumber green pepper & radishes 2 Tbsp Vinegar & oil salad dressing 1 Carrot, raw	Lunch 2 slices multigrain bread 2 tbsps peanut butter ¼ C raisins 1 raw carrot 1 cup low-fat or skim milk 2 Oatmeal Cookies	Lunch: 1 Wheat Tortillas ¾ C refried beans 1-2 Chopped Tomatoes, lettuce 1 oz Cheese ½ C Rice 1 Piece of fruit 6oz low fat or skim milk

tomato, carrot, cucumber green pepper & radishes, 1/2 cup Endive, 2 Tbsp light Creamy Italian salad dressing, no oil or salt 10 Pretzel twists		Juice drink, mixed fruit 1 Apple		1 cup Apple Juice		
Snack Sports Bar	Snack Trail mix: ¼ C Peanuts, almonds, raisins	Snack 1 Banana 6-8 oz Low fat yogurt	Snack ½ C Granola 4 oz Skim or low fat Milk	Snack 1 C Fruit Juice Granola Bar (or Sports Bar and 8 oz sports drink)	Snack 1-2 Slices wheat bread, 3 oz deli sliced lean turkey, lettuce, mustard 1 Fruit	Snack 1 Slice wheat bread 1 Tbsp Peanut Butter 1 Tbsp Jelly 1 Piece of fruit
Dinner 1 Burrito, large: 1 Flour or wheat tortilla, 1/2 cup Pinto beans, 3 oz lean meat or chicken 1 oz Cheddar cheese, reduced fat ½ Cup Rice 1/2 cup Carrots 1/2 cup Ice milk	Dinner Baked Potato w/ 1 C veggie chili or beef chili ¼ C onion 1 oz cheese 2 C Salad: Green lettuce, carrots, cucumbers, tomatoes, mushroom 2 Tbsp low fat dressing 1 C low fat cottage cheese	Dinner 3 oz Haddock, baked 1 C Rice 2 Tbsp Margarine 1 cup Squash, winter, mashed ½ C Broccoli	Dinner 1 Large Grilled Chicken salad made with: 1 cup Loose-leaf lettuce, 1/2 cup Garbanzo beans, 3 Tbsp Carrots, shredded, 3 oz grilled Chicken, 2 Tbsp lite dressing 1/2 cup Brussels sprouts 3/4 cup Corn, yellow cooked w/ 1/3 cup	Dinner 1 cup Spaghetti, 1/2 cup Spaghetti sauce 2 Tbsp Parmesan cheese, grated 1 thick slice Italian Bread 2 tsp Margarine, tub, unsalted 1 cup Green beans 1 Cup Corn 8 oz skim or low fat milk	Dinner Mixed vegetables w/linguini & 3 oz salmon: 1 cup Mixed vegetables, broccoli, peppers, mushroom 1 Tbsp olive oil 1 cup Linguini 3 oz Pink salmon 2 spg Parsley, chopped 1/4 tsp Sage, ground 1 C Sweet potato,	Dinner 3 oz Pork chop, center loin, lean only, broiled 1 Potatoes, boiled without skin 1/2 cup Winter squash, mashed ½ C green beans chopped, cooked 1 Tbsp Margarine, tub 3/4 cup Applesauce, unsweetened

			sweet red pepper, chopped 1 Wheat dinner rolls, small 2 tsp margarine			
Snack 2 small peanut butter cookies 1 C apple juice	Snack 4 Graham cracker halves 1 Tbsp Peanut Butter	Snack 1 cup Frozen dessert, lower fat ice cream or frozen yogurt	Snack ½ Cup chocolate Pudding, 2 Tbsp Frozen nondairy whipped topping	Snack Ice Cream Sandwich	Snack 3 cups Popcorn, microwave, natural flavor, salt free 8 oz mixed juice	Snack Ice cream sundae made with: ½- 1 cup low-fat Ice cream, 1 Tbsp Dessert topping, strawberry, 1 Tbsp nuts, non-fat chocolate sauce

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Clark, Nancy, MS, RD. *Nancy Clark's Sports Nutrition Guide book, 2nd edition.* 1997. Brookline, MA: Nancy Clark.

Sample 2,000 Calorie Meal Plan

DAY 1

BREAKFAST

Creamy oatmeal (cooked in milk):

½ cup uncooked oatmeal

1 cup fat-free milk

2 Tbsp raisins

2 tsp brown sugar

Beverage: 1 cup orange juice

LUNCH

Taco salad:

2 ounces tortilla chips

2 ounces cooked ground turkey

2 tsp corn/canola oil (to cook turkey)

*¼ cup kidney beans**

½ ounce low-fat cheddar cheese

½ cup chopped lettuce

½ cup avocado

1 tsp lime juice (on avocado)

2 Tbsp salsa

Beverage:

1 cup water, coffee, or tea**

DINNER

Spinach lasagna roll-ups:

1 cup lasagna noodles(2 oz dry)

½ cup cooked spinach

½ cup ricotta cheese

1 ounce part-skim mozzarella cheese

*½ cup tomato sauce**

1 ounce whole wheat roll

1 tsp tub margarine

Beverage: 1 cup fat-free milk

SNACKS

2 Tbsp raisins

1 ounce unsalted almonds

DAY 2

BREAKFAST

Breakfast burrito:

1 flour tortilla (8" diameter)

1 scrambled egg

*a cup black beans**

2 Tbsp salsa

½ large grapefruit

Beverage:

1 cup water, coffee, or tea**

LUNCH

Roast beef sandwich:

1 small whole grain hoagie bun

2 ounces lean roast beef

1 slice part-skim mozzarella cheese

2 slices tomato

¼ cup mushrooms

1 tsp corn/canola oil (to cook

mushrooms)

1 tsp mustard

Baked potato wedges:

1 cup potato wedges

1 tsp corn/canola oil (to cook potato)

1 Tbsp ketchup

Beverage: 1 cup fat-free milk

DINNER

Baked salmon on beet greens:

4 ounce salmon filet

1 tsp olive oil

2 tsp lemon juice

a cup cooked beet greens

(sauteed in 2 tsp corn/canola oil)

Quinoa with almonds:

½ cup quinoa

½ ounce slivered almonds

Beverage: 1 cup fat-free milk

SNACKS

1 cup cantaloupe balls

DAY 3

BREAKFAST

Cold cereal:

1 cup ready-to-eat oat cereal

1 medium banana

½ cup fat-free milk

1 slice whole wheat toast

1 tsp tub margarine

Beverage: 1 cup prune juice

LUNCH

Tuna salad sandwich:

2 slices rye bread

2 ounces tuna

1 Tbsp mayonnaise

1 Tbsp chopped celery

½ cup shredded lettuce

1 medium peach

Beverage: 1 cup fat-free milk

DINNER

Roasted chicken:

3 ounces cooked chicken breast

1 large sweet potato, roasted

½ cup succotash (limas & corn)

1 tsp tub margarine

1 ounce whole wheat roll

1 tsp tub margarine

Beverage:

1 cup water, coffee, or tea**

SNACKS

¼ cup dried apricots

1 cup flavored yogurt (chocolate)

(Choosemyplate.gov)

**It's the little things that can make a difference in your
success as an athlete!**