

GEISINGER

SPORTS MEDICINE

Sports Nutrition: Making it Practical

The following guidelines will assist you in better nutrition:

- Eat more times per day.
- Be consistent with meal times and keep plenty variety in food selection.
- Broil, bake, or grill all meats.
- Eat more chicken (without skin) and fish.
- Eat lean cuts of meat only (or trim the fat).
- Consume low-fat dairy products.
- Consume low glycemic fruit choices 2-3 servings per day. See: <http://www.glycemicindex.com/>
- Eat raw, steamed or boiled vegetables daily. See: <http://www.allrecipes.com/advice>
- Regulate the amount of butter, mayonnaise and condiments high in saturated fat.
- Regulate the amount of red meat consumption.
- Drink appropriate amount of water daily.
- Use sweets sparingly, not as a meal.
- Avoid processed foods whenever possible i.e. Cold cuts, chips, pre-packaged meals, and more.

Some high carbohydrate (CHO) foods:

- Breads and rolls
- Cereals (good quality, no sugar added)
- Pancakes and waffles (diet butter)
- French toast
- Pasta
- Rice (brown rice is preferable)
- Vegetables (potatoes, sweet potatoes, lima beans, peas, corn, etc.)
- Fruit and fruit juices
- Jellies and jams

By consuming more of the foods listed above, you can:

- Increase energy storage in the muscle.
- Increase protein sparing effect, therefore the protein will not be used for energy, but rather growth and repair.
- Increase in endurance.
- Increase rate of recovery from a practice session.

Low Fat Substitutes List

Fats are very important to your diet regardless of your goals. But, be sure your getting the right type of fat. Your total fat intake should consist of less than 20% saturated fats.

Decrease your saturated fats:

Choose more:	Choose less:
Skinless chicken	Fried chicken
Baked ham	Salami and Bologna
Mustard	Mayonnaise
Mozzarella cheese	American cheese
Skim or 1% milk	Whole milk
Pretzels	
Sweet potato	

Pre Competition Nutrition

Pre-competition meals are a vital part of an athlete's training program. It is recommended that the meal consist of appropriate level of Glycemic Index carbohydrate foods, small amount fat and protein for balance. Carbohydrates can be converted quickly to glycogen and used by the muscles. Fats and protein, on the other hand, usually slow intestinal motility and can take hours to digest. Fat does not provide a rapidly usable source of energy and high levels in the bloodstream can reduce carbohydrate uptake into the muscles.

A pre-game meal should be approximately 2-4 hours prior to competition to allow adequate digestion. The closer you are to the game time the smaller the meal or portion sizes should be.

Refer to **LOW and MODERATE** glycemic index foods @ www.nutricoach.net/low_gi_foods.html
Or visit www.glycemicindex.com

- ✓ ***Having 2 choices from the FOOD GROUPS AND PORTIONS attached would be great pre-workout snacks.***

Some low-GI foods would include

- Multi grain or whole wheat bread or pita rice
- any low fat/light dairy product: light yogurt, sugar free pudding, 1% or skim milk
- bananas, grapes, oranges, apples, peaches, pears
- any vegetable, bean or legume

Or some other meal ideas

A sandwich with slice of cheese, 2-3 slices of deli meat, on 2 slices of whole wheat bread with a piece of fruit and a glass of low fat milk.

1 cup/container of vanilla Greek yogurt with a piece of fruit and granola

1 container of yogurt, a piece of fruit, Lender's Bagel

1-2 slices of pizza, 2 cups of salad with light dressing and hard boiled egg on top

1 cup spaghetti, meatballs, marinara sauce and 2 cups of salad with light dressing.

1 Pita, ½ cup hummus, 1 piece of fruit, 1 cup of low fat milk.

- ✓ ***The key to prevent cramping is avoiding large meals less than 4 hours prior to event/workout, avoiding high sugar and fat foods and beverages.***

FLUIDS

Dehydration decreases your performance and energy levels significantly. It can even cause constipation! To prevent dehydration, you should drink fluids before, during and after exercise.

You should drink enough fluid to balance your fluid losses.

Prior to Exercise: 14-22 ounces

During Exercise: 6-12 ounces every 15-20 minutes

After Exercise: 16-24 ounces for every pound lost during exercise (Yes, athletes should weigh yourself before and after exercise).

Athletes should limit the amount of sugar sweetened beverages, carbonated beverages or even sports drinks PRIOR to exercise. Water is the best way you can hydrate your body!

- ✓ ***Please refer to Geisinger Sports Medicine's hydration material for more on fluids for sports.***

Post Competition Nutrition

CARBOHYDRATES

What you eat and drink after practice/competition CAN affect your recovery rate. This is the case with daily training, one intense competition, or multiple events in one day. Post-exercise food and drink selections should be chosen as carefully as your pre-exercise foods. Exercise depletes muscle glycogen, therefore, it is important to consume **high carbohydrate foods afterwards**. Resynthesis of muscle glycogen will be facilitated to help you recover from the previous exercise session and prepare you for the next exercise session. Long term muscle glycogen depletion may result in fatigue and/or headaches and a decrease in performance level. It is recommended that you eat after training, and preferably within **45 minutes (maybe up to 60) after a workout**. This period, known as the golden hour, is when the muscles absorb the most nutrients and when glycogen, an energy reserve in your muscles, is replaced most efficiently. Again, composition of the post-workout meal should be mostly healthy carbohydrates, with protein (at least 10 percent of the meal) is needed for muscle repair, glycogen replacement and growth.

High carbohydrate foods and beverages should be consumed 1 to 4 hours after exercise. (Don't forget about high carbohydrate beverages.) The appropriate intake of carbohydrate is .5 grams/ pound of body weight within the first 2 hours and then repeat this amount 2 hours later.

Example: 150 pound athlete: 150 lb. x .5g Carbos/lb = 75 g carbohydrates

*1 g carbohydrate contains 4 calories
4 calories/g x 75 g Carbos= 300 calories*

Therefore, the 150 lb. athlete would need to consume 75 grams, or 300 calories, of carbohydrates within the first 2 hours and again in the second 2 hours. Ideally, carbohydrate replenishing should occur within 1 hour. Examples of foods that you can acquire 300 calories are:

- 1 cup of orange juice and a bagel
- 2 cups of cranberry juice
- 8 oz. fruit yogurt
- 1 bowl of cereal (healthy) with a banana

Examples of recovery foods:

Refer to HIGH Glycemic Index foods @ www.nutricoach.net/low_gi_foods.html

Pizza	Vegetable soup	Vegetables
Potato	Yogurt	Rice
Banana	Orange Juice	Bread
Pineapple Juice	Raisins	Saltines
Pretzels		

Fist Method for Portions

The fist method for measuring portion sizes for CHO and Protein:

One fist of meat or about 4-6 oz equals about 20-25 grams of protein (i.e. chicken, beef, fish, lunch meat (3 slices))

One fist of CHO equals about 40-50 grams of CHO (i.e. bagel, cup of pasta/rice, cereal)

This method is not exact but will allow you to "make it practical" when calculating your sport specific macronutrients.

Calorie values of foods: http://www.ars.usda.gov/main/site_main.htm?modecode=12354500

✓ **The goal for eating meals after workouts is to include about 1 serving of at least 4 food groups. Choose 1 serving of at least 4 of the following categories.**

FOOD GROUPS AND PORTION SIZES

Fruits:

- 1 cup grapes
- 1 cup sliced mangos
- 2 cups raspberries
- 1 medium apple (size of a fist)
- 1 medium banana
- 1 cup canned peaches (light syrup)
- 1 cup blueberries
- 2 cups strawberries

Dairy:

- 8 oz 1% or skim milk
- 1 oz/slice of cheddar cheese or American cheese
- 1/2 cup cottage cheese or 1 cup low fat cottage cheese
- 1 string cheese stick
- 1 container of light yogurt
- 1/2 cup sugar free pudding

Meat:

- 2 oz of boneless beef steak, skinless chicken, roasted turkey
- 2 slices of bacon
- 2 slices of lean lunch meat
- 15 boiled shrimp
- 1 egg
- 1/2 cup of legumes like chick peas or kidney beans

Starch:

- 1 packet of Oatmeal
- 1 cup low sugar cereal like Cheerios or life
- 1/2 cup cooked rice or pasta
- 1/2 bagel (frozen size)
- 1 small potato
- 1 medium pancake (3 inch)
- 1 slice whole wheat bread
- 40 pretzel sticks
- 15 teddy grahams
- 10 Animal crackers

Vegetable:

- 2.5 cups lettuce, spinach, greens
- 2 cups cooked green beans, cabbage, broccoli, asparagus
- 4 whole tomatoes
- 3/4 cup corn, peas

Eating on the Run: Make the Best Choice

	Bad	Better	Best
Burger King	Double whopper with cheese and mayo 1,010 calories 67 grams of fat	Whopper Junior sandwich without mayo 320 calories 15 grams of fat	Broiler chicken sandwich without mayo 370 calories 9 grams of fat
McDonalds	Big Extra with cheese 810 calories 55 grams of fat	6- piece chicken McNugget 290 calories 17 grams of fat	Chicken McGrill without mayo 340 calories 7 grams of fat
Wendy's	Big bacon classic burger 580 calories 30 grams of fat	Plain single burger 360 calories 16 grams of fat	Grilled chicken without mayo 310 calories 8 grams of fat
Taco Bell	Taco salad in edible shell 850 calories 52 grams of fat	Burrito chicken supreme 430 calories 18 grams of fat	Grilled chicken burrito 390 calories 13 grams of fat

For more information on any of the above information, please see your athletic trainer, visit us at www.geisingersports.com or contact us through email or phone. More resources can be found at these web sites:

www.glycemicindex.com/
www.nutricoach.net/low_gi_foods.html
www.allrecipes.com/advice
www.nal.usda.gov/fnic/foodcomp/search/
www.caloriesperhour.com/

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