



















## THE MAAC NUTRITIONAL GUIDE

**The most important part of our training program is our nutrition plan. Over the past several months, the coaching staff has been building a training plan centered on nutrition and ensuring that our swimmers are getting adequate recovery. Use this plan as a guideline for preparing meals and shopping. This is a starting point and is meant to be a working document. Let's committ ourselves to implementing a thoughtful and meaningful nutrition plan.**

## Energy Content

Calories cal)	Energy content	( 1kcal =1000 cal)
50-60% carbohydrates	(not below 50%)	4cal/g
10-15% protein	(not above 25%)	4cal/g
25-30% fat	(not above 30%)	9cal/g

### One Serving Looks Like...

Grain Products		Vegetable and Fruit	
1 cup of cereal flakes	 Fist	1 cup of salad greens	 baseball
1 pancake	 Compact Disc	1 baked potato	 Fist
1/2 Cup of cooked rice, pasta, or potato	 1/2 baseball	1 medium fruit	 baseball
1 slice of bread	 Cassette Tape	1/2 cup of fresh fruit	 1/2 baseball
1 piece of cornbread	 Bar of soap	1/4 cup of rasins	 large egg
Dairy and Cheese		Meats and Alternatives	
1 1/2 oz. cheese	 4 stacked dice	3 oz. meat, fish, and poultry	 deck of cards
1/2 cup of ice cream	 1/2 baseball	3 oz. grilled/ baked fish	 checkbook
1 tsp. margarine or spreads	 1 die	2 Tbsp. peanut butter	 ping pong ball



### Grams/day breakdown of a healthy diet

Energy Intake (kcal)	Carbohydrate (50-60%)	Protein (10-15%)	Fat (25-30%)
1600	200-240g/day	40-60g/day	44-53g/day
2000	250-300g/day	50-75g/day	56-67g/day
2200	275-330g/day	55-83g/day	61-73g/day
2600	325-390g/day	65-98g/day	72-87g/day
2800	250-420g/day	70-105g/day	78-93g/day

## CARBOHYDRATES

*1.2- 1.5 g/kg body wt*

### **Oats, whole grains, bagels, starchy veggies, pasta**

- \_ eat foods high in fiber
- \_ eat throughout the day
- \_ eat some before practice (juice counts)
- \_ carb-electrolyte drinks during practice (Gatorade, PowerAde...)

### **EXAMPLES : meals with 100g carbs**

- 1 bagel with peanut butter and 2/3 cup of raisins
- 1 cup of low-fat yogurt, 1 banana, and 1 cup of orange juice
- 1 turkey sandwich with 1 cup of applesauce



THE MAAC NUTRITIONAL GUIDE, 2014

2 cups of spaghetti with meat sauce and 1 piece of garlic bread

8 oz. of skim milk, 1 apple, 1 orange, 2 slices of bread, and 3 pancakes

1 serving of sports drink and 1 bagel

**PLEASE REVIEW THE FOLLOWING LINK RE: GOOD VS. BAD CARBS:**

<http://online-nutrition-degrees.com/good-carbs-vs-bad-carbs-infographic/>



## **FIBER**

*25-35g a day*

<b>Fiber intake</b>	<b>Serving size</b>
Fresh, whole, dried fruit	2g/ serving
Whole grain breads	2g/slice
Whole grain cereals	3-12g / serving
Veggies	1-4g/ serving

<b>Fiber Intake</b>	<b>Servings/Day</b>	<b>Benefits</b>
Dairy	3 to 5	calcium
Protein	2	protein & iron
Veggies	5	vitamins, minerals & fats
Fruit	4	energy, minerals, fiber & vitamins
Bread & whole grains	4	energy, minerals, fiber & vitamins

### EXAMPLES:

Whole wheat bread and flour

Brown rice



## THE MAAC NUTRITIONAL GUIDE, 2014

Fresh fruits and veggies

Grain breads and cereals

Legumes (beans & peas)

Meats

<b>Fruits</b>	<b>Serving Size</b>	<b>Amount of Fiber</b>
apple	1 medium =	4 grams
peach	1 medium =	2 grams
pear	1 medium =	4 grams
tangerine	1 medium =	2 grams
<b>Vegetables</b>		
acorn squash, fresh, cooked	3/4 cup =	7 grams
asparagus, fresh, cooked	1/2 cup =	1.5 grams
broccoli, fresh, cooked	1/2 cup =	2 grams
brussels sprouts, fresh, cooked	1/2 cup =	2 grams
cabbage, fresh, cooked	1/2 cup =	2 grams
carrot, fresh, cooked	1 =	1.5 grams
cauliflower, fresh, cooked	1/2 cup =	2 grams
romaine lettuce	1 cup =	1 gram
spinach, fresh, cooked	1/2 cup =	2 grams
tomato, raw	1 =	1 gram
zucchini, fresh, cooked	1 cup =	2.5 grams
<b>Starchy Vegetables</b>		
black-eyed peas, fresh, cooked	1/2 cup =	4 grams
lima beans, fresh, cooked	1/2 cup =	4.5 grams
kidney beans, fresh, cooked	1/2 cup =	6 grams
potato, fresh, cooked	1 =	3 grams
<b>Grains</b>		
bread, whole-wheat	1 slice =	2 grams
brown rice, cooked	1 cup =	3.5 grams
cereal, bran flake	3/4 cup =	5 grams
oatmeal, plain, cooked	3/4 cup =	3 grams
white rice, cooked	1 cup =	1 gram



## PROTEINS

*6 oz a day (size of 2 decks of cards)*

\_after exercise to provide amino acids for building and repair of muscle tissue

\_Red meats once or twice a week, poultry and seafood the majority of the time

### **EXAMPLES:**

black beans with rice

Peanut butter on wheat bread

Tofu and stir-fry veggies with brown rice

### **Protein Expenditure based on activity**

<b>Activity</b>	<b>Serving size based on body wt.</b>
Endurance	1.2-1.4 g/kg/bw/day
Strength	1.6-1.7 g/kg/bw/day
Regular daily activity	0.8-1.0 g/kg/bw/day

## High Protein Foods List:

Animal Protein Foods	1 gram edible protein per 100g (3.5 oz) in weight	Plant and Dairy Protein Foods	1 gram edible protein per 100g (3.5 oz) in weight
Beef Topround, Lean	36.12g	Pumpkin Seeds	32.97g
Pork Bacon	35.73g	Peanut Butter	25.09g
Beef Brisket, Lean	33.26g	Cheddar Cheese	24.90g
Beef Steak, Lean	31.06g	Monterey Cheese	24.48g
Beef Top Sirloin, Lean	30.55g	Colby Cheese	23.76g
Pork Top Loin	30.48g	Peanuts	23.68
Bluefin Tuna	29.91g	Mozzarella Cheese	22.17g
Turkey Bacon	29.60g	Almonds	22.09g
Chicken, Dark Meat	28.99g	Pistachio Nuts	21.35
Oyster	28.81g	Flaxseed	19.50g
Beef Tenderloin, Lean	28.51g	Tofu	17.19g
Turkey, White Meat	28.48g	Oats	16.89g
Beef Kidney	27.27g	Egg Yolk	15.86g
Halibut	26.69g	Cashew Nuts	15.31g
Cooked Trout	26.63g	Hazelnuts	15.03g
Veal Cooked	25.93g	Walnuts	15.03g
Beef Liver	25.51g	Fried Egg	13.63g
Cooked Salmon	25.56g	Soybeans	13.10g
Goose	25.16g	Whey	12.93g
Caviar	24.60g	Cottage Cheese	12.49g
Lamb Cooked	24.52g	Ricotta Cheese	11.26g
Freshwater Bass	24.18g	Pecans	9.50g
Flounder	24.16g	Lentils	9.02g
Beef T-bone	24.05g	Wheat Bread	8.80g
Hamburger 80% lean	24.04g	Acom Nuts	8.10g
Duck	23.48g	Lima Beans	7.80g
Turkey	23g	Macadamia Nuts	7.79g
Pork Chop	21.91g	Mungo Beans	7.54g
Turkey Gizzard	21.72g	Cranberys	5.54g
Turkey Heart	21.47g	Green Peas	5.36
Anchovy	20.35g	Pinto Beans	4.36g
Lobster	20.50g	Kidney Beans	4.83g
Shrimp moist heat	20.91g	Yogurt	3.47g
Turkey Liver	20.02g	Non-fat Milk	3.37g
Alaska King Crab	19.35g	Whole Milk	3.22g
Chicken, White Meat	16.79g	White Rice	2.69g
		Brown Rice	2.58g
		Fruits	~1g or less





## **HYDRATION**

*2-3 liters (7 to 11 cups a day)*

\_No sodas, energy drinks, coffee and teas because of the sugar content and diuretics

\_Limit sports drinks to physical exercise, water down sports drink ½ water ½ sports drink

## **THREE EASY WAYS TO CHECK FOR DEHYDRATION**

**12/17/2013**

**BY JILL CASTLE, MS, RDN**

Staying hydrated is a constant effort for many swimmers, requiring a hydration plan around exercise and vigilance for signs of dehydration. In young athletes, a 1% dehydration can impair athletic performance (a one-pound weight loss in a 100# athlete).

A plan for drinking enough fluids throughout the day is the best defense against dehydration. For a recap on how much to drink and when, see [this article](#).

What if you could monitor and correct your own hydration? Ultimately, that is the goal for a self-sufficient athlete—to know your body well enough to make adjustments when things are off.

Here are three easy ways to check your hydration status:

**Thirst:** “If you feel thirsty, you’re already dehydrated.” While the mechanism of thirst is complicated, it can be associated with the level of dehydration. Using a scale of one to nine, with one being not thirsty at all to a nine being very, very thirsty, researchers have found that young athletes falling between a three and five likely had a 1 to 2 % dehydration.

However, thirst may not always work for young athletes as a signal to drink. More recent research has shown that young athletes may not recognize thirst, or they



## THE MAAC NUTRITIONAL GUIDE, 2014

may deny it, being distracted by other events. For this reason, it is important for parents and coaches to remind young swimmers to drink fluids.

**Urine Color:** Urine color charts have been developed to help young athletes know when they are dehydrated. Ideally, swimmers want their urine color to be a pale yellow (like fresh-squeezed lemonade or lemon juice), indicating adequate hydration. A strong yellow, orangey-yellow, or brownish green color (read: Mellow Yellow or Mountain Dew) means the athlete is dehydrated and drinking needs to begin pronto!

Researchers have used [urine color charts](#) in locker rooms to educate about hydration, and have found them to be effective reminders to drink fluids.

**Weight:** A pre- and post-exercise body weight is another method for identifying dehydration after exercise (no, the weight lost is not fat—it is water). For every pound lost, 500 milliliters (1/2 liter or 16 ounces) of fluid should be consumed to replenish your hydration state. For example, if you weigh 110 pounds before practice, and 108 pounds after practice, you have lost 2 pounds of water weight, and need to drink 32 ounces of fluid.

However, if you are following your drinking plan and drinking throughout exercise, you're water weight loss will be less, and so will the amount needed to replenish your hydration status after practice. The goal is to maintain a stable weight after swimming, or to lose very little. This can be accomplished by drinking enough during exercise.

These three simple methods for checking hydration status can help the young swimmer stay hydrated and promote optimal performance in the pool, whether training or competing.

*Jill Castle, MS, RDN is a childhood nutrition expert and co-author of [Fearless Feeding: How to Raise Healthy Eaters from High Chair to High School](#). She is the creator of [Just The Right Byte](#), a childhood nutrition blog. She lives with her husband and four children in New Canaan, CT. Questions? Contact her at [Jill@JillCastle.com](mailto:Jill@JillCastle.com).*



## **Key Points**

- **The 1<sup>st</sup> 15 min after practice is the most important time to eat and critical to maximizing recovery, this is the time to:**
  - **replenish the body's glycogen stores (carbohydrates)**
  - **repair muscle tissue (protein)**
- **Eat a substantial meal within in the 1<sup>st</sup> 2hrs after practice**
- **Eat an array of colorful fruit and vegetables, targeting 5 servings (1 cup) each day.**
- **Incorporate starchy (potato and other root vegetables) and non-starchy vegetables into meals and snacks.**
- **Eat whole grains (cereal, bread, pasta, rice, crackers) over refined grains, at least half of the time.**
- **Drink and eat low-fat dairy products (or dairy substitutes), targeting 3 cups each day.**
- **Scale back on fast foods, desserts, candy, junk food, energy drinks, coffee, teas, processed snacks, soda and other sweetened beverages—keep it to one or two servings (or less) each day.**
- **Strategically use sports drinks during training and competition, not as an accompaniment to a meal or snack.**
- **Meat snacks should include: water, pasta, nuts, fruit (fresh, dried, canned), veggies**
- **Dink plenty of water**
- **Get an adequate amount of sleep (~8hrs) to rest and rebuild muscles**
- **For more information visit Super tracker**  
<http://www.choosemyplate.gov/supertracker-tools/supertracker.html>

# Look Great Feel Great

## Fruits

1. Berries: blueberries, blackberries, raspberries ect.
2. Apples
3. Bananas
4. Oranges
5. Avocados: *The blacker the better*
6. Limes & Lemons: *Find the heavy ones... They'll have more juice*



## Nuts & Seeds

Unroasted, Unsalted, Unsmoked Nuts. **RAW.** Store in Fridge

19. Almonds
20. Walnuts
21. Flaxseeds
22. Sesame Seeds



## Meat, Fish, and Poultry

23. Boneless, Skinless Chicken Breasts
24. Roast Turkey Breast
25. Boneless Lamb Loin
26. Wild Salmon
27. Fresh Sole



## Eggs & Dairy

33. Omega-3 Organic Eggs
34. Feta Cheese
35. Plain Nonfat Yogurt



## Staples

40. Almond Butter
41. Cashew Butter
42. Extra-Virgin Olive Oil
43. Green Tea Bags
44. Rice Vinegar, Unseasoned



## Vegetables

7. Baby Spinach
8. Baby Mixed Greens
9. Broccoli
10. Carrots
11. Tomatoes: Vine ripened or hot house
12. Cucumbers
13. Beans
14. Peas
15. Onions
16. Garlic
17. Herbs (bunches): Rosemary, Flat-leaf Parsley, Cilantro, Tarragon
18. Peppers



## Frozen

28. Frozen Shrimp Cooked
29. Frozen Mixed Berries



## Organic Soy Product

30. Plain, Unsweetened Soymilk
31. Plain, Unsweetened Soy Yogurt
32. Tofu



## Whole Grains

36. Brown Rice, Long Grains
37. Whole Rye or Flax Bread
38. Steel-Cut Oats
39. Quinoa



## Drinks

45. Bottled Water



## Extras

46. Dark Chocolate
47. Cocoa Powder





THE MAAC NUTRITIONAL GUIDE, 2014

## Healthy Options For Eating Out

*(all under 480 calories, low in saturated fat)*

### McDonald's

- Premium Caesar Salad with Grilled Chicken and low-fat balsamic vinaigrette plus Fruit 'n Yogurt Parfait; 375 calories, 9.5g fat (4g saturated)
- Grilled Honey Mustard Snack Wrap plus small french fries; 480 calories, 19g fat (5g saturated)

### Taco Bell

- Fresco Steak Burrito Supreme plus black beans; 430 calories, 10.5g fat (3g saturated)
- Fresco Chicken Soft Taco plus Pintos 'n' Cheese; 330 calories, 10.5g fat (4g saturated)

### Dunkin' Donuts

- Egg White Veggie Wake-Up Wrap plus hash browns; 350 calories, 18g fat (4.5g saturated)
- Tuna Salad Sandwich on an English muffin; 390 calories, 23g fat (3.5g saturated)

### Subway

- 6" Subway Club on 9-Grain Wheat Bread with lettuce, tomatoes, onions, green peppers, cucumbers, and Sweet Onion Sauce plus apple slices; 445 calories, 4.5g fat (1.5g saturated)
- Oven Roasted Chicken Salad with tomatoes, green peppers, onions, olives, and cucumbers with honey-mustard dressing plus Yogurt Parfait; 400 calories, 6g fat (1.5g saturated)

### Starbucks

- Chicken & Hummus Bistro Box (hummus, grilled chicken, grape tomatoes, cucumber, and pita bread) plus a banana; 380 calories, 7g fat (1.2g saturated)
- Zesty Chicken & Black Bean Salad Bowl (grilled chicken, black beans, roasted corn, jicama, tomatoes, feta, greens, and quino with chile vinaigrette) plus Seasonal Harvest Fruit Blend; 450 calories, 15g fat (2.5g saturated)

### Chipotle

- 3 Barbacoa (braised beef) Tacos on soft corn tortillas with lettuce and tomato salsa; 405 calories, 10g fat (2.5g saturated)
- Vegetarian Burrito Bowl with brown rice, black beans, fajita vegetables, lettuce, and roasted chili-corn salsa; 385 calories, 7g fat (1g saturated)

### Wendy's

- Large Chili plus Garden Side Salad (no croutons) with fat-free French dressing 375 calories, 9 g fat (3.5 g saturated)
- Ultimate Chicken Grill Sandwich plus apple slices 440 calories, 10 g fat (1.5 g saturated)

### Panera

- Half Smoked Turkey Breast on Artisan Whole Grain Loaf plus Low-Fat Garden Vegetable with Pesto Soup (from the You Pick Two Menu); 320 calories, 6g fat (1g saturated)



## THE MAAC NUTRITIONAL GUIDE, 2014

- Power Mediterranean Chicken Salad (no bacon) plus Baked Lays Potato Chips; 430 calories, 17g fat (2.5g saturated)

### Burger King

- Whopper Jr. (no mayo) plus Value-Sized Onion Rings; 410 calories, 18g fat (5.5g saturated)
- Veggie Burger plus apple slices; 440 calories, 16g fat (2.5g saturated)

### KFC

- 4 Hot Wings plus Sweet Kernel Corn; 380 calories, 16.5g fat (4g saturated)
- Kentucky Grilled Chicken Breast plus mashed potatoes (without gravy) 310 calories; 10g fat (2.5g saturated)

## RACE DAY MEALS

# 10 NUTRITION STRATEGIES FOR THE BIG RACE DAY

3/11/2014

### BY JILL CASTLE, MS, RDN

At the end of the season when you're laying everything on the line, don't let a misstep in nutrition or poor planning sabotage your goals. Here are a few things to keep in mind as you prepare for the biggest meet of the season:

1. **Eat breakfast.** Start races on the right foot by eating something first thing in the morning. Muscles and metabolism will get the carbohydrate and energy boost they need.
2. **Eat at the meet.** I'm not hungry, or I'm too nervous to eat. These are just two excuses for not eating at competition. Going for long time periods without food (namely carbohydrate) is a bad idea and will chip away at performance.
3. **Be structured with eating.** No skipping, delaying or erratic times for eating (ahem, midnight munchies). Even at the pool, space eating around events, keeping the pre-load/recovery eating cycle going. The body will perform at its best when it is fueled.



2. **4. Don't experiment with food.** Stay with tried and true foods your body can digest and tolerate while swimming.

**5. Focus on carbohydrates.** These are the body's first food resources for energy. Go for slow digesting carbs like oats, whole grain bread or bagels or starchy vegetables. When opting for pasta, hold the fatty sauces like Alfredo. Instead, go for marinara or a low-fat option.

**6. Forget the fatty foods.** These are best eaten later, not during competition weekends, as they will just drag the swimmer down, leaving him feeling full and sluggish.

**7. Be prepared for hunger.** Unexpected hunger can get the best of any athlete. Bring more food than you need. That's better than running to the concession stand for something less-than-ideal. Remember the adage: If you fail to prepare, you prepare to fail.

**8. Keep it clean.** Important races and meets are not the time for fast food, junky snacks, sugary desserts or candy. Stick with wholesome, real food like fruit, whole grain breads and crackers, and nut butter.

**9. Quench the muscles.** Drink plenty of water to avoid dehydration and muscle cramping. Swimmers don't need to get fancy with sports drinks or other sugary beverages during competition, as most races are brief.

**10. Sleep.** Although not a nutrition recommendation, sleep is tightly tied to allowing nutrition to do its thing. Sleep is energizing and restorative, and the time of day when muscles are in major renovation mode, healing, building, strengthening and using all that good nutrition it received during the day. Don't sacrifice sleep!

*Jill Castle, MS, RDN is a childhood nutrition expert and co-author of [Fearless Feeding: How to Raise Healthy Eaters from High Chair to High School](http://www.fearlessfeeding.com) ([www.fearlessfeeding.com](http://www.fearlessfeeding.com)). She is the creator of [Just The Right Byte](http://www.justtherightbyte.com) ([www.justtherightbyte.com](http://www.justtherightbyte.com)), a childhood nutrition blog. She lives with her husband and four children in New Canaan, CT. Questions? Contact her at [Jill@JillCastle.com](mailto:Jill@JillCastle.com).*





## COMPETING AT THE TABLE

The coaching staff has spent many hours working on a nutrition plan and have tried to simplify and clarify the daily eating routine. The key to building strength relies on swimmers receiving adequate rest and nutrition. Rest and nutrition are the most important factors to our success. Here is what we would like a nutrition/eating routine to look like for all of our swimmers:

### School Year Meal Regimen

**1st Meal:**

**Breakfast**

**2nd Meal:**

**Snack**

**3rd Meal:**

**Lunch**

**4th Meal:**

**Pre: Workout Snack**

**5th Meal:**

**Post Workout Recovery Meal/Drink**

**6th Meal:**

**Dinner**

### Summer Training Season Regimen (2 workouts per day)

**1st Meal:**

**Light Breakfast**

**2nd Meal:**

**Post Workout Recovery Meal/Drink**

**3rd Meal:**

**Lunch/Brunch**

**4th Meal:**

**Pre Workout Snack**

**5th Meal**

**Post Workout Recovery Meal/Drink**

**6th Meal**

**Dinner**





THE MAAC NUTRITIONAL GUIDE, 2014