**Basics of Eating to Improve Energy and Athletic Performance**

Eat to improve your energy BEFORE, DURING and AFTER you swim. What you eat 24 hours a day can affect your overall energy level and performance. As a swimmer, you burn more calories (energy) than most athletes, so giving careful thought to your food choices and how much you eat is critical.

To maintain the best energy level and hunger control, you should eat at **minimum 5 times per day**. With your heavy activity level, you **ideally should eat 8 times per day**. If you’re awake for an average of 16 hours per day, you should eat something about **every 2 hours**.

Eat larger meals at least one hour before swimming to avoid nausea or cramping during your swim. Keep to snacks or smaller meals right before or during your swims. Before early morning meets or practices (when you may not be awake and able to eat more than an hour before swimming), keep it simple and light but packed with energy.

Ideally, eat something within 20 minutes after you swim to replace the energy you spent and to help your body recover faster. Make sure you always have a stand-by snack or two ready to go for these instances.

Drink a lot of water during and after your swims. Stick to water or vitamin waters, not sugary, sodium-filled or calorie-filled drinks.

* During each of your 8 meals and snacks: Drink at least 8 ounces – totaling at least 64 ounces
* Before practices or meets: Drink at least 16 ounces
* During your practices (based on 2 hours in the pool): Drink at least 45 ounces
* **Total Daily: 125 ounces (approximately 1 gallon)**

**Nutrition Basics**

All foods that you eat are made up of ***Macronutrients.***  Macronutrients are chemical compounds that help with your well-being and provide you with the bulk of your energy. These macronutrients are commonly known as **Carbohydrates, Proteins** and **Fats**.

* **Carbohydrates** – the body’s main source of energy, should make up 50% of your daily diet

Examples: Cereals, Breads, Pastas, Fruits, Veggies

* **Proteins** – grow and repair muscles and cells throughout your body; should make up 25% of your daily diet

Examples – Eggs, Dairy, Fish, Chicken, Turkey, Pork, Beef, Nuts, Beans

* **Fats** – provides you with energy needed for your brain, heart and nervous system; should make up 25% of your daily diet

Examples – Nuts, Seeds, Oils, Seafood, Avocados, Dairy, Meats, Packaged Foods (packaged foods often have manmade fats that are not healthy for us)

When your body breaks down and gets energy from the food you eat, it uses carbohydrates first. They break down the fastest. Next, it turns to proteins. Lastly, it turns to fats. In order to feel your best and to get long-lasting energy**, eat proteins and fats with your carbohydrates.** For example: Instead of eating a large banana by itself for a snack, eat a smaller banana and nuts to go along with it.

**High Energy Foods**

|  |  |
| --- | --- |
| **Oatmeal** | complex carbohydrate (digests slower, gives long-lasting energy) |
| **Nuts** | offer great mix of carbs, protein and healthy fat |
| **Eggs** | ideal source of protein & help rebuild muscle |
| **Dark Chocolate** | high in antioxidants which help your body fight disease |
| **Beans** | high in fiber and complex carbs |
| **Spinach** | high in iron which helps with lack of energy and anemia |
| **Oranges** | full of Vitamin C which helps with energy and iron absorption |
| **Bell Peppers** | full of vitamin C |
| **Berries** | full of vitamin C |
| **Kiwi** | full of vitamin C |
| **Sweet or Baked Potatoes** | complex carbohydrate |
| **Brown Rice** | complex carbohydrate |
| **Apples** | high in fiber and digest slowly |
| **Reduced-fat Cheese**  | offers great source of protein and fat |
| **Greek Yogurt** | full of magnesium (which helps with energy) and protein |
| **Salmon** | full of protein and healthy fatty acids which help with brain and nervous system  |
| **Whole Grain Cereals** | good source of carbs and nutrients Stay away from high sugar cereals which have > 9 grams of sugar per serving |
| **100% Fruit Juices** | rich in nutrients and calories with no added sugar |
| **Peanut Butter** | offers great mix of carbs, proteins and fats |
| **Soups with Added Veggies** | rich in nutrients and very filling |
| **Pastas** | high in fiber and complex carbs |

**Your Daily Energy Needs**

Your body is fueled by calories. A **calorie** is a measurement that describes how much **energy** you get from the foods you eat. To figure out the number of calories you need per day for top-notch athletic performance, you must do the following:

***Step 1:* Calculate Your Basal Metabolic Rate (BMR)**

Your BMR is the amount of calories you need to live each day (not including activity). The BMR formula is as follows:

**Females: BMR = 655 + ( 4.35 x weight in pounds ) + ( 4.7 x height in inches ) - ( 4.7 x age in years )**

**Males: BMR = 66 + ( 6.23 x weight in pounds ) + ( 12.7 x height in inches ) - ( 6.8 x age in years )**

Examples:

1. Jenny - Female, 120 pounds, 5’9”, 17 years old -> BMR = 1422 calories
2. Scott - Male, 150 pounds, 5’8”, 18 years old -> BMR = 1743 calories

***Step 2:* Calculate Your Activity Calories**

Swimmers burn approximately **500 – 800 calories** **per hour** in the pool.

**Females** tend to be on the lower end of that range, burning approximately **500 calories per hour**.

**Males** tend to be on the higher end of that range, burning approximately **800 calories per hour**.

Example 1: Based on **2 hours per day** in the pool:

* + Females burn about **1000** calories per day.
	+ Males burn about **1600** calories per day.

Example 2: Based on **3 hours per day** in the pool:

* + Females burn about **1500** calories per day.
	+ Males burn about **2400** calories per day.

***Step 3:* Calculate the Calories You Need Everyday**

Take your **BMR** and add that to your **Activity Calories** to determine how many calories you should eat every day.

Examples based on **2 hours per day in the pool**:

* + Jenny: 1422 calories BMR + 1000 calories burned = approximately 2500 calories per day
	+ Scott: 1743 calories BMR + 1600 calories burned = approximately 3400 calories per day

**Your Daily Eating Schedule**

**\_\_\_\_\_\_\_ Calories**

(You can keep track in My Fitness Pal or Lose It apps)

|  |  |
| --- | --- |
| **Pre-AM Practice or Meet Snack** |  calories |
| **Breakfast** |  calories |
| **AM Snack** |  calories |
| **Lunch** |  calories |
| **PM Snack** |  calories |
| **Pre-PM Practice Snack** |  calories |
| **Dinner** |  calories |
| **Evening Snack** |  calories  |

**Foods for the Tough Times in a Swimmer’s Day**

**Pre Swim Snacks**

Peanut Butter To Go Cups – 250 calories

8 oz. Apple + 1 ½ Tbsp Peanut Butter – 255 calories

10 oz. Orange + Greek Yogurt Cup – 220 calories

2 Cheesesticks + 10 oz Pear – 220 calories

Quest Protein Bars – 200 calories

8 oz. Blueberries + Greek Yogurt Cup – 250 calories

2 Cheesesticks + 10 oz Natural Fruit Juice – 250 calories

2 Tbsp Peanut Butter + 6 oz. Celery – 225 calories

1 oz. Dried Fruit + 1 oz. Nuts – 255 calories

**Post Swim Breakfasts**

2 Oatmeal Packets + 2 Hard Boiled Eggs – 440 calories

2 Cups Cereal + Greek Yogurt Cup – 410 calories

2 Quest Protein Bars – 420 calories

2 Mini Bagels + 2 Tbsp Peanut Butter – 400 calories

Naked 100% Juice + 1 oz. Nuts – 480 calories

2 oz. Pretzels + 2 oz. Peanut Butter – 400 calories

**Some “Fun” Snacks**

1 oz. Nuts + 1 Tbsp Dark Chocolate Chips – 230 calories

2 Graham Crackers + 1 Tbsp Nutella – 220 calories

1 oz. Raisins + 1 oz. Nuts – 265 calories

4 Tbsp. Hummus + 1 oz. Pretzels – 210 calories