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Clueing in on Carbs

Despite the ebbs and flows in the popularity of various high protein diets, we know that diets rich in grains, vegetables, and fruits (nutritious, high-carbohydrate foods), help prevent disease, maintain body weight and optimize athletic performance. There is no substantial evidence that would support a change in that recommendation. According to the Institute of Medicine, individuals should consume between 45 – 65% of total calories from carbohydrates (1,8), with athletes requiring the higher end of that recommendation (2,6,7). Carbohydrates remain the best and most consistently studied ergogenic (performance enhancing) aid. Read on to find out why carbs still matter and to figure out how much you need in your diet.

Why Do Carbs Still Matter?

Carbohydrates are stored in limited amounts as glycogen in muscles and in the liver. The muscle glycogen is the fuel for your muscles, while liver glycogen maintains a normal blood sugar level to fuel the brain. If your body runs out of glycogen, as in the later stages of a marathon, and you can barely lift your legs you “hit the wall”. If your blood sugar drops too low, your brain becomes fatigued and struggles to control the active muscles. As a result, you experience mental fatigue and “bonk” or “crash”. Athletes require more carbohydrates than sedentary individuals. (1,8)

Are You Getting Enough?

First, estimate your carbohydrate need using Table 1 and then compare your needs with your intake based on some common carb foods in Table 2. Make any adjustments necessary for optimal athletic performance and overall well being.

Some Suggestions

Here are some creative suggestions to help keep your plate interesting and your muscles fueled.

- If you are bored with white potatoes - try baking sweet potatoes or acorn squash.
- Slice boiled new potatoes over salads for a filling lunch.
- Try raw sugar snap peas for a cool summer snack.
- Explore the world of beans - there are over 20 different varieties which, coupled with a grain-based food such as pasta or rice, makes a protein packed, high carbohydrate dish.

- Try wild rice, brown rice, Spanish rice or long grain rice for a change from white.
- Experiment with all the different shapes, sizes, colors and flavors of whole wheat pasta that are available.
- Enjoy different whole grain and multi-grain breads spread with jam, honey or fruit butter.
- Try fruit on top of pancakes or waffles instead of syrup or add raisins, berries, or diced fruit to the batter.

References

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Table 1

Estimating Your Carbohydrate Needs

| Daily Calories Required | 55% Calories (grams of carbohydrates) | 65% Calories (grams of carbohydrates) |
|-------------------------|---------------------------------------|---------------------------------------|
| 1500 | 206 grams | 244 grams |
| 2000 | 275 grams | 325 grams |
| 2500 | 344 grams | 406 grams |
| 3000 | 413 grams | 488 grams |
| 3500 | 481 grams | 569 grams |

Table 2

High Carbohydrate Foods

| Vegetables | Carbs (grams) | Total Calories |
|--|---------------|----------------|
| Baked potato (1 large) | 55 | 240 |
| Stuffing (1 cup) | 40 | 220 |
| Spaghetti, macaroni, noodles (1 cup) | 40 | 200 |
| Rice (white / brown) (1 cup) – parboiled | 35 | 160 |
| Corn (1/2 cup) | 18 | 80 |
| Winter squash (1/2 cup) | 15 | 65 |
| Carrots (1, Medium) | 10 | 60 |
| Peas (1/2 cup) | 10 | 40 |
| Tomato sauce (1/2 cup) | 10 | 18 |

| Dairy | Carbs (grams) | Total Calories |
|-------------------------------|---------------|----------------|
| 1% Milk (1 cup) | 12 | 102 |
| American Cheese (1 slice) | 0 | 114 |
| Lowfat yogurt – plain (8 oz.) | 16 | 143 |
| Cottage cheese (1 cup) | 6 | 183 |

| Selected Cereals | Carbs (grams) | Total Calories |
|------------------------|---------------|----------------|
| Grape nuts (1/2c) | 48 | 200 |
| Raisin Bran (1 cup) | 45 | 190 |
| Shredded wheat (1 cup) | 40 | 160 |
| Waffles (2) | 36 | 259 |
| Oatmeal (1 oz.) | 18 | 102 |
| Pancakes (2) | 35 | 183 |
| All Bran (1 cup) | 45 | 159 |
| Cream of wheat (1 oz.) | 18 | 86 |

| Legumes | Carbs (grams) | Total Calories |
|------------------------|---------------|----------------|
| Baked beans (1 cup) | 50 | 330 |
| Lentils (1 cup) | 40 | 215 |
| Split-pea soup (11 oz) | 35 | 220 |
| Kidney beans (1 cup) | 33 | 204 |
| Lima beans (1 cup) | 28 | 140 |
| Garbanzo beans (1 cup) | 27 | 28 |

| Fruits | Carbs (grams) | Total Calories |
|---------------------------|---------------|----------------|
| Raisins (1/2 cup) | 60 | 240 |
| Fruit yogurt (1 cup) | 50 | 250 |
| Dried apricots (8 halves) | 30 | 120 |
| Banana | 26 | 105 |
| Apple sauce (1/2 cup) | 26 | 97 |
| Ice milk (1/2 cup) | 22 | 120 |
| Apple or Orange | 20 | 80 |
| Grapes (1 cup) | 16 | 58 |

| Grains | Carbs (grams) | Total Calories |
|-----------------------------|---------------|----------------|
| Sub roll (8 inches) | 60 | 280 |
| Bran muffin (large) | 45 | 320 |
| Bagel | 30 | 210 |
| Corn bread (large slice) | 29 | 198 |
| Whole grain (2 slices) | 25 | 150 |
| English muffin (1) | 25 | 130 |
| Graham crackers (2 squares) | 11 | 60 |

Sources: 3,4,5