

FUEL FOR YOUR STROKE

CARBOHYDRATES

Nutrition Session 1

Food provides three main nutrients-carbohydrate, protein, and fat.

Food is the “gasoline” for your body similar to gasoline in your car.

Nutrition is not just important on the day of the meet, your body needs the proper fuel in order to train.

Why focus on Carbohydrates: 1-Best source of energy for your body for exercise 2-Fruits/Vegetables are a great source of carbohydrates and they provide vitamins/minerals

Carbohydrates are the preferred energy source for a swimmer/athlete *BECAUSE-Carbohydrates are the easiest energy source for your body to use.

When you are swimming hard at practice (probably more than 50% of your workout) oxygen is in high demand, your body needs the oxygen to support the exercise.

Starting exercise with full carbohydrate stores can delay the onset of fatigue and help you train and compete more effectively.

A side effect of exercise is the generation of “free radicals.” Free radicals are molecules that can actually cause damage to muscle tissue above and beyond the damage caused by exercise. The damage by exercise is normal. It serves as part of the stimulus for training adaptation to take place. But damage caused by free radicals is not a desired part of the training process. Damage caused by free radicals circulating in the bloodstream after workout can continue well into the recovery period. Fruits/vegetables contain vitamins and minerals including a sub-group called anti-oxidants. Anti-oxidants “absorb” free radicals, neutralizing their effect in the body before their damage to muscle tissue can amount to much.

Protein is used for building and repairing muscle tissue, hormones, and red blood cells. Recommended examples of protein include: fish, poultry, lean meats, beans, low fat and nonfat dairy foods, and eggs or egg white.

Fats from healthy sources include: vegetable oils, nuts, seeds and avocados.

Foods that come to mind when we say carbohydrates probably include: pasta, rice, and bread-these are good sources of carbohydrates but try whole grain pasta, brown rice, and whole wheat bread or whole grain bread.

Two types of carbohydrates include: simple and complex

Simple carbohydrates-are already very close to being in the digested form so they pass almost immediately into the bloodstream. Examples: FRUIT is the best simple carbohydrate and the only one that will help you perform better at practice and meets. The other simple carbohydrates should be considered occasional foods vs. every meal/day food: candy, sugar, syrup, honey, donuts, sugared cereal, soda, cake.

Complex carbohydrates-provide the most efficient source of fuel for your body- vegetables, whole wheat bread, whole grain cereal, popcorn, brown rice, bagels, pita bread, whole wheat pasta, beans. Complex carbohydrates are converted to glycogen which are “bundles” of glucose and stored in the liver and muscles for use later.

Our goal should be to eat the complex carbohydrates and fruit.

Set your own goals based on what you are currently doing but it would be great to eventually eat 2-4 Fruits and 3-5 Vegetables a day.

Colorful foods are great! Some suggestions include: apples, strawberries, blueberries, bananas, oranges, kiwi, watermelon, raspberries, grapes, mango, papaya, apricots, red peppers, broccoli, corn, squash, carrots, peas, green beans, tomatoes.

Winter in the Midwest is not the best for inexpensive fresh produce so don't forget frozen, dried, and canned (look for canned fruits in its own juice and reduces salt in vegetables).

Ideas/Suggestions:

At meals: Fill $\frac{3}{4}$ of your plate with a variety of carbohydrate-based foods like fruit, cereals, pasta, bread, potatoes, and vegetables. Fill the other $\frac{1}{4}$ of your plate with lean protein foods, such as fish, poultry, lean meats, low-fat or nonfat dairy products, beans, and small amounts of nuts and seeds, which provide healthy fats.

Use salsa or marinara on baked potatoes *Order vegetable pizza*Put beans, raisins/sunflower seeds on salads *Dip vegetables in fresh salsa*Instead of tortilla chips/salsa, use pretzel chips with salsa*If you are used to sugared cereal try mixing the sugared cereal with regular (example: Fruit Loops and Cheerios)

Breakfast should include: whole grains, fruit, dairy, and protein (peanut butter, cheese, hard boiled eggs are examples)

To maximize your body's carbohydrate stores, consume carbohydrates before and after exercise, with a smaller amount of protein.

Athletes can recover more effectively, work out harder more frequently if they not only pay attention to WHAT they eat, but WHEN they eat it. After your evening workout it is important to refuel your body within 30 minutes. This will help your body recover/heal from the stress you placed on your body.

Quick and easy snacks for the car ride home after practice include: dry cereal, whole wheat crackers, peanut butter and honey sandwich, low fat yogurt or cottage cheese (add some peaches/berries if you want), low fat string cheese, nuts (almonds, pistachios, walnuts), fresh or dried fruit, sliced carrots, or other vegetables, 100% fruit juice, graham crackers, teddy grahams, edamame beans.

Since it is important to eat immediately after practice to repair and refuel you may want to try eating two small meals/two large snacks on practice nights. The meal/snack prior to practice should be high in carbohydrate and moderate in protein and low in fat. The meal or snack after practice should contain more protein than the meal/snack before practice. What you eat after a hard practice affects your ability to perform during your next workout.

Lastly, think color a rainbow is great, the brighter the better. Leaf lettuce has a lot more vitamins/minerals than iceberg lettuce.