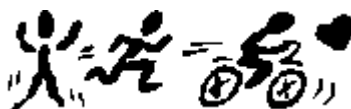


Dynamic Health Services



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EATING FOR PERFORMANCE

Macronutrients

Carbohydrates: Primarily found in plants and their by products. Only animal sources with significant carbohydrates are milk and yogurt. Should be the focal point of your diet for they provide you with the bulk of the energy needed to sustain exercise.

- 40-65% of total calories
- 1 gram = 4 calories
- We store ~ 2000 calories of carbs in our muscles, liver and blood to allow for ~ 3 hours of exercise
- At rest, our bodies utilize ~ 35% carbs for energy, during aerobic exercise ~40% and at race pace intensity ~70%
- Consume ~200-400 calories of carbs 2-4 hours before training or competition
- During exercise, maintain blood glucose levels by consuming 30-60 grams (120-240 calories) of carbs/ hour.
- Post exercise, consume 1.5 grams/kg of bodyweight

Protein: Next important macronutrient following carbohydrates for it will aid in replenishing lost stores that happen during exercise and will provide the amino acids that the muscles need to rebuild.

- 15-30% of total calories
- 1 gram = 4 calories
- At rest and during light exercise, our bodies utilize ~ 2-5% proteins for energy while at race pace ~ 5-8%

Fat: Essential for absorbing fat soluble vitamins, cushioning organs, insulating the body, and making sure nerve impulses are sent and received efficiently.

- 15-30% of total calories
- 1 gram = 9 calories
- On average, our bodies store ~ 80,000 calories of fat or enough energy for a dozen or more marathons!
- At rest, our bodies utilize ~ 60% fats for energy, during aerobic exercise ~ 55%, and at race pace 15%

Hydration

- Water is essential to keep our bodies hydrated but also serves the following functions:
 - Acts in the blood as a transport mechanism
 - Eliminates metabolic waste products in urine
 - Dissipates heat through sweat
 - Helps to digest food
 - Lubricates joints and cushions organs

- 40-60% of our body weight is water with muscle being 65-75% water and fat ~ 25 % water
- Be careful of caffeinated beverages secondary to dehydrating effect. Consume twice as much water as you did in the caffeinated beverage to make up for the fluid loss
- During exercise, consume 4-8oz. of fluid every 15-20 min.

Daily Calorie Consumption

(Bernhardt, G., Training plans for Multisport Athletes, Velo Press, 2000)

To determine daily caloric intake needed to maintain body weight multiply your body weight in kilograms (1kg= 2.2 pounds) by 30 calories.

Modify this formula according to your activity levels:

- Add more calories (100-300) if you lead a highly active lifestyle
- Add about .13-.16 calories per minute, per kilogram of bodyweight for swimming
- Add about .15-.17 calories per minute, per kilogram of body weight for cycling
- Add about .14-.29 calories per minute, per kilogram of body weight for running
- Add about .1 calories per minute, per kilogram of body weight for strength training
- Subtract calories (100-300) if your lifestyle or job is sedentary