### Pre and Post Fuel Ideas:

These are ideal foods to eat before and after exercise to best optimize your energy levels for peak performances. It is important to eat within 30-60 minutes after exercise, as muscle is sensitive to protein intake and can use them easily.



#### If you have time to eat 4 hours prior to exercise:

You need carbs, protein and fats if you have time to eat 4 hours prior to exercise. Good options are oatmeal made w/milk and brown sugar and fruit, a turkey and cheese sandwich w/soup or salad, or salmon with pasta and a salad.

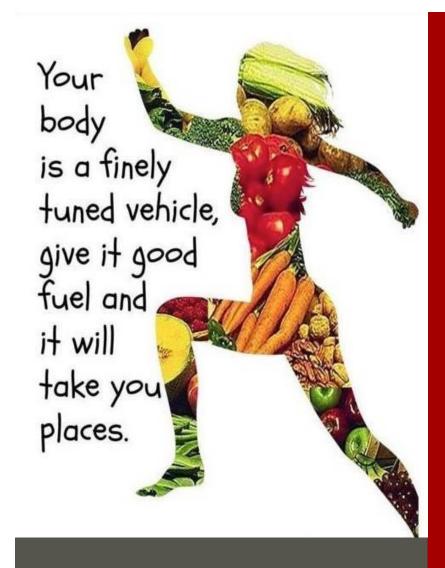
If you only have 2-3 hours prior to exercise:

You need carbs, protein and lower fat intake. Yogurt with granola, fruit and granola or an energy bar, ½ PBJ sandwich, or trail mix are good options.

**If you only have 1 hour or less prior to exercise:** You need easily digestible carbs, and very little fat or protein. Your body won't be able to use these. Try a bagel, fresh fruit, crackers, sports drink, or pretzels.

#### After exercise refueling: try within 30-60 minutes

The main goal after exercise is to replace energy stores, repair and build tissues, and fluid and electrolyte replacement. You need about a 3:1 to 4:1 ratio of carbs (energy replacement) to protein (tissue repair). A quick snack could be a smoothie, sport drink and energy bar, low fat chocolate milk and PB crackers. A meal should include chicken, tofu, or steak stir-fry with veggies and brown rice. Pasta with meat sauce, salad and milk, or grilled salmon with baked or roasted potatoes and a salad are excellent choices as well.



Trainer Dave's Guide to:

# **Sports Nutrition**

## Major Nutritional Needs

#### Carbohydrates

Major source of energy. Your body prefers to use carbs for energy. They are mostly easy to break down and create energy quickly. Comes from whole grains, fruits, vegetables, legumes (peas, beans, lentils), sports drinks and sweets. Your body prefers to use carbs as energy during more quick, high intensity exercises

#### Fats

Another main source of energy for athletes. Fats provide the most energy per gram. Comes from vegetable oils, avocados, peanut butter, nuts, fatty fish, eggs, dairy. Your body prefers to break down fats during low intensity, long duration exercises.

### Protein

Used little for energy, mostly used for repairing and rebuilding your cells and tissues. Comes from lean meats, poultry, fish, eggs, dairy, soy, nuts and legumes.



# Exercise and Energy Breakdown

## Exercise at 25% VO2 Max (low intensity)

Approximately 20% of your energy comes from carbs. Around 80% of your energy use comes from fats.

### Exercise at 65% VO2 Max (med intensity)

Energy is created equally from carbs and fats.

## Exercise at 85% VO2 Max (high intensity)

Less than 25% of your energy is created from fats. Energy is created from your stored carbohydrates.



VO<sub>2</sub> Max is the measure of maximum volume of oxygen that an athlete can use. Maximal oxygen consumption reflects the aerobic physical fitness of the individual, and is an important determinant of their endurance capacity during prolonged, sub-maximal exercise.