

THE POSTER COACH™

DEFINITIONS

FOOD

Food is our source of energy and constructive components known as nutrients. All food can be divided into three groups known as Macronutrients. These Macronutrients have specific values of calorie and nutrients.

Fats • Carbohydrates • Protein

Why should I know this?

Understanding food is the most important key to your health and fitness success.

The nerd's 2 cents

To eat successfully you must consume the proper ratio of fat, carbs, and protein, 4-7 times a day. How many times a day, and in what ratio depends on three factors:

What is your specific goal?

Who are you genetically?

What is your daily lifestyle and workout routine?

The average calorie requirement for a person seeking fat loss is 10 calories per pound of Lean Body Mass (LBM) with an average macronutrient ratio of 60% of those calories coming from carbohydrate foods, 20% from protein and 20% from fat foods.

FAT

Fat has 9 calories per gram and 3 nutrient compound categories: triglycerides, phospholipids, and sterols (cholesterol). Fat is the most concentrated form of energy! Fat transports fat soluble vitamins (A, D, E and K), constructs hormones, regulates and excretes other nutrients, slows digestion, and signals the release of the CCK hormone. CCK gives our brain the satisfaction signal which makes us consume less calories!

Why should I know this?

FAT IS NUTRITIOUS not just caloric. Most people consume the wrong ratio and quantity of fats, which is why we only hear about cutting back our fat intake. If Americans constantly ate less than 10% of their daily calories from fat, which by the way is very unhealthy, we would constantly hear how wonderful and nutritious fats are. Remember eating fat doesn't make you fat, unburned calories make you fat. Fat just happens to be the most concentrated form of food energy at 9 calories per gram. That is why our body stores any excess energy (calorie) in the form of body fat. It is very compact and concentrated. Can you imagine how huge people would be if we stored all of our excess energy in the form of carbohydrate, or protein tissue? Actually, we would be 2 1/4 times the size we are now as protein carbohydrates have only 44% of the energy that a gram of fat does!

The nerd's 2 cents

Fats are more formally known as lipids. The first category of fats, triglycerides, can be further broken down into saturated and unsaturated fats, and the third category of fats, sterols (cholesterol) can be broken down into 3 categories of lipoproteins – VLDL, LDL and HDL which stand for very low-density, low-density and high-density lipoprotein.

CALORIE

A calorie is a measurement of energy (heat to be exact). We use calories to measure how much energy is in the food we eat and how much energy is burned by the activities we do. Lean Body Mass is the only part of our body that burns this energy.

Why should I know this?

Because if the food we eat brings in more calories than our Lean Body Mass burns, the left over calories are stored as fat.

The nerd's 2 cents

There are actually two kinds of calories or measurements of energy (heat). There is a gram calorie and a Kilogram Calorie (K-Calorie). A gram calorie is the amount of heat required to increase the temperature of 1 gram of water 1 degree. A K-Calorie is the amount of heat required to increase the temperature of 1 kilogram of water 1 degree. All food is measured in K-Calories.

CARBOHYDRATE

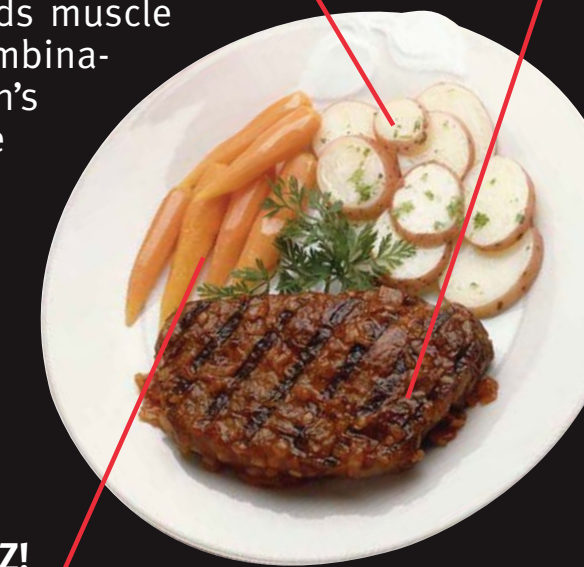
Carbohydrates have 4 calories per gram and deliver the majority of the vitamins and minerals our bodies need on a daily basis. Carbohydrates have three categories – sugars (simple), starches (complex) and fibers. Carbohydrates are also a primary source of a little nutrient known as... water! This is why *hydrate* is part of the word *carbohydrate*. Carbohydrates break down into blood sugar, more officially known as glucose. Glucose is the *only* source of energy for our brain and nervous system. Glucose is also the primary source of energy for our Lean Body Mass. We analyze and further categorize "carbs" by the rate at which they raise blood sugar levels and therein affect insulin release. This rating system is known as the **Glycemic Index**.

Why should I know this?

A healthy body that burns fat and builds muscle must be fed a diet consisting of 40% - 65% calories from carbohydrates spread out over 4-6 meals a day depending on your profile. This means that carbohydrates are the largest food group in our diet. Further, not understanding the Glycemic Index and how carbohydrates work can lead to misconsumption of carbs. This means loss of Lean Body Mass, slower metabolism, calcium depletion and decreased mental and physical performance. Carbohydrate and Glycemic Index knowledge is the most important key to understanding the flawed philosophy behind the no carbohydrate diet. Remember, in the world of health and fitness there is no such thing as opinion or technique, only facts and fiction.

★ The nerd's 2 cents

The only differences between a simple and complex carb is its Glycemic Index. When a carbohydrate is tested for its Glycemic Index, it is unaccompanied by any fat, protein, or fiber. Remember, a healthy body that burns fat and builds muscle is fed 4-6 times a day with meals containing a combination of carbs, fats, and protein specific to a person's profile. When a simple carb is accompanied by the right mix of fiber, protein, and fat, the Glycemic Index drops, but the absorbability stays the same. This means lower blood sugar and insulin levels with simple sugars. Can you say super food? So let's take a **natural simple fruit sugar**, mix it with a pharmaceutical grade whey protein, a blast of fiber and you have got a carbohydrate with the absorbability of a simple sugar, the unduplicated nutrient value of all-natural fruit and no insulin dump or blood sugar spike. Hello... **POWER BLENDZ!**



NUTRIENT

Nutrients are the constructive components of food – the worker bees of what we consume. They actually get things done with the calories. Nutrients maintain, repair, and construct our Lean Body Mass (LBM is our only fat and calorie burning machinery). Nutrients are necessary for the breakdown and transport of energy, creation of hormones, building of muscle tissue, burning of fat, and much more.

Why should I know this?

Because food is your source of nutrients. When most people think of food they think of unwanted calories. We must remember food brings us both calories and nutrients, and nutrients are the only things that allow for the development of muscle, burning of fat and nourishment of the brain. This is why starvation diets don't work. When you starve yourself of calories you starve yourself of nutrients. This normally kills more Lean Body Mass than fat mass.

The nerd's 2 cents

Know your stuff. Strawberries have more vitamin "C" than oranges, and orange juice has more potassium than bananas.

LBM (lean body mass) = body weight - fat mass

MHR (maximum heart rate) = You should never be at your MHR for any reason under any workout program.

THR (target heart rate) = Your THR is the heart rate (beats per minute) that you should be at during a given exercise to achieve a specific result.

PROTEIN

Protein yields 4 calories per gram like carbohydrates. Protein is divided into 22 different nutrient groups known as amino acids. Protein is the major building block of the body. Protein builds and repairs hair, skin, fingernails, blood, and muscle tissue. Eight of the 22 amino acids are considered essential. BCAA's or branched chain amino acids are the three aminos most vital to the maintenance, and growth of muscle tissue. The BCAA's are Leucine, Isoleucine, and Valine.

Why should I know this?

Unlike fat and carbohydrates, our body does not store protein! We must get it from our diet, or our body is forced to break down muscle tissue. Our body's priority is not how we look or how strong we are; rather the priority is organ function and repair. Problem #2, most protein food sources are animal and dairy products which generally have more fat than substantial protein. This becomes quite a challenge considering the protein demand necessary to support Lean Body Mass growth can be as high as 1.5 grams per kilogram of lean body mass. Solution? Dietary supplementation. Supplement manufacturers can engineer protein of the highest quality (100BV), fat free, with low cost and easy to consume texture. That is if they are willing to pharmaceutically manufacture it (look for 100BV and UDA grade).

The nerd's 2 cents

Protein can and will be used as a carbohydrate (glucose) when the body has insufficient carbs. Blood sugar is more important and your body will sacrifice this constructive protein all day long. When a protein is used as a carb several negative things happen.

- 1) Muscles don't get their constructive protein nutrients and in turn not only don't develop but flat out don't recover.
- 2) The body loses fluid (dehydration) from the lack of *carbohydrates*.
- 3) The metabolism slows down to decrease the demand for carbohydrates.
- 4) When a protein is used as a sugar, the nitrogen portion of the molecule is separated and floats around in the blood making the blood acidic. The body must use calcium to balance the PH. This leads to calcium depletion and osteoporosis in elderly folks.

BODY FAT FORMULA FOR WOMEN

Factor 1 (total body weight x 0.732) + 8.987
Factor 2 wrist measurement (at fullest point) / 3.140
Factor 3 waist measurement (at navel) x 0.157
Factor 4 hip measurement (at fullest point) x 0.249
Factor 5 forearm measurement (at fullest point) x 0.434
Lean Body Mass factor 1 + factor 2 - factor 3 - factor 4 + factor 5
Body Fat Weight total body weight - lean body mass
Body Fat Percentage (body fat weight x 100) / body weight

BODY FAT FORMULA FOR MEN

Factor 1 (total body weight x 1.082) + 94.42
Factor 2 waist measurement (at navel) x 4.15
Lean Body Mass factor 1 - factor 2
Body Fat Weight total body weight - lean body mass
Body Fat Percentage (body fat weight x 100) / body weight

TARGET HEART RATE

Your THR is the heart rate (beats per minute) that you should be at during a given exercise to achieve a specific result

Formula
Factor 1 (220-age)
Factor 2 factor 1 - resting heart rate
Factor 3 factor 2 x target heart rate intensity (55%-85%)
Target Heart Rate factor 3 + resting heart rate

100% Intensity = Using the amount of resistance (weight) that will prevent you from getting any more reps past your goal number of reps. Give it all you got! This is known as training to muscle failure. Using a spotter is recommended as you should continue to push yourself until you completely fail while trying to complete a repetition. **NOTE:** Keep in mind that the number of sets prescribed in the Poster Coach does not account for warm up sets (any set less than 100%). Warm up sets should be included before going to 100% as prescribed so as to prevent over-training.

BASAL METABOLIC RATE

Basal metabolic rate is the number of calories your body burns at rest to maintain normal body functions regardless of exercise. It changes with age, weight, height, gender, diet and exercise habits.

Why should I know this?

If you can increase your basal metabolic rate, you can increase your body's capability of burning more calories while at rest, making it less likely that your body will store fat. How do we do this? Let's start with your diet. Have you ever consumed a large meal and felt very tired and sleepy afterward? Chances are the meal contained a lot of fat and/or a lot of hard-to-digest foods which decreases your basal metabolic rate. What happens is the body has to break down the food you ate, and if it's a high fat meal and/or food that is hard to digest, it will take a considerable amount of energy and time to break down those fats and/or foods so that they can either be used by the body or stored in the adipose tissue. Look at your body as a machine. By feeding it a high-fat meal and/or hard-to-digest food, you just gave it a lot of work to do, therefore leaving you with not too much energy. This type of meal lowers your basal metabolic rate, increasing the chances of fat storage at rest. It is better to eat whole unprocessed nutritious foods your body can utilize without much effort, meaning the less fat and/or hard-to-digest foods your diet contains, the better.

The most effective way to raise your basal metabolic rate is to juice and/or eat fresh fruits and vegetables. Juicing every couple of hours or so will allow your basal metabolic rate to hit the roof! You will have enough energy to do your daily activities and then some. Some people claim they need only four hours of sleep per night while on this type of diet. Also, the amount of weight loss you can achieve in conjunction with a workout routine is extraordinary.

The nerd's 2 cents

After you consume fresh juice from fruits and vegetables, it takes only a few minutes for the nutrients to enter your bloodstream, making them available for energy almost instantly. Your body's digestive system does not have to work, leaving energy to do other things, like burn fat!

ENGLISH BMR FORMULA

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

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

HARRIS BENEDICT FORMULA

To determine your daily calorie needs, multiply your BMR by the appropriate activity factor, as follows:

If you are sedentary (little/no exercise): Calorie Calculation = BMR x 1.2

If you are lightly active (light exercise/sports 1-3 days/week): Calorie Calculation = BMR x 1.375

If you are moderately active (moderate exercise/sports 3-5 days/week): Calorie Calculation = BMR x 1.55

If you are very active (hard exercise/sports 6-7 days/week): Calorie Calculation = BMR x 1.725

If you are extra active (hard exercise/sports & physical job or 2x training): Calorie Calculation = BMR x 1.9

The BMR formula uses the variables of height, weight, age and gender to calculate the Basal Metabolic Rate (BMR). This is more accurate than calculating calorie needs based on body weight alone. The only factor it omits is Lean Body Mass and thus the ratio of muscle-to-fat a body has. Remember, leaner bodies need more calories than less leaner ones. Therefore, this equation will be very accurate in all but the very muscular (will underestimate calorie needs) and the very fat (will overestimate calorie needs).



The World's Finest Frozen Drink™