

# EAT TO LOSE

The other day I found myself standing in a line at the grocery store, my cart laden with supplies to stock my refrigerator for the next week. As I waited for the checker to total the customers ahead of me, eyes wandered over the covers of the many magazines next to the register. These magazines covered many different subjects and were targeted for many different types of people, but one element was present on every cover. Without exception, each sported a glaring headline: "Lose Weight Overnight," "90 Pounds in 90 Days." If they only knew, I thought. I put the headlines out of my head as the checker finished manhandling my rations. I loaded the car and drove home.

As I put the groceries away, I switched on the television. "Give us a week and we'll take off the weight," the commercial promised me. I changed the channel. Moments later a commercial touted, "Willpower in a Pill." I turned off the set. Our over-nourished, under-informed society believes the diet fallacies which dominate the media. This contributes to the remarkable statistic that 50% of Americans are overweight. This statistic is according to the authorities who also endorse 25% body fat as average for women and 15% for men. America will continue to be one of the fattest nations in the world until people understand that the only way to lose fat is by eating.

The first thing to understand is that the body has very efficient survival mechanisms. Fat is the body's long term energy source. Fat is a non-metabolically active storage form for energy; fat requires no calories to exist. In times of starvation, the body can live off these stores, however, the body will most likely choose an alternate store - your muscles. Lean body mass, which is mainly comprised of muscle, is metabolically active. Lean body mass (LBM) requires calories just to maintain itself. Even when you're sleeping. So, in times of starvation (or a low-calorie diet), your body will generally choose to break muscles down for energy (catabolism) in order to keep ahead of the famine cycle.

Your body adapts incredibly well to changing environments. During the course of low-calorie dieting, the body first utilizes the small amounts of calories consumed for energy, but soon that source is depleted. The body then burns muscle tissue for energy. When the body finds a feast (i.e.: going out for a big Friday night dinner) the body thinks it's still in a famine state and immediately stores these extra calories as fat. Your Basal Metabolic Rate (BMR) plays a key role in regulating this storage by changing the ratio of lean to fat. The BMR, or the amount of calories your body uses at rest to survive, is extremely sensitive and will quickly adapt to changes in its environment. So, if you require 2500 calories to survive at your current lean body mass, and you cut your calories to 1000 in order to lose weight, your body will view this as a famine. Within a week it will start to slow its metabolism down until you have a new BMR of 1000 calories. It is able to slow down because it actually uses muscle as a fuel source, not the fat. Thus, your lean body mass decreases and you've kept the same amount of fat. You've lost weight on the scale, but actually increased your proportion of fat. Now your body only requires 1000 calories to survive at the body weight it previously required 2500 calories to maintain. When you stop dieting and return to 2500 calories you will gain fat from the excess calories. Each subsequent diet will lower the BMR a little more, trapping you in a vicious up and down cycle commonly referred to as the Yo-Yo Syndrome.

People do lose weight on the quick schemes and pills commonly advertised. However, of what is this weight composed? You are made up of three main elements: Water, Muscle and Fat. Most people do not want to lose the water and muscle of their bodies. They want to lose the fat. But water and muscle is just what they loose in the initial stages of any starvation diet. The body even releases enzymes to protect its fat stores and burns muscle tissue for fuel. Soon even muscles and water loss will cease as a new BMR is established and the dieter plateaus. They then lose negligible amounts of fat. Not only this, but they lose the very elements which shape the body and make it look and feel good: muscle tissue and water.

How do I get off the diet Yo-Yo? (Screams the chubby woman with the ice-cream cone.)

The first key to losing body fat and maintaining lean body mass is as easy as balancing a scale: a scale of calorie expenditure and deficit. You want the weight you lose to be fat, not muscle. Body composition is determined by a complex set of genetic and behavioral factors: there are many contributing variables. However, your body weight and what that weight is composed of (muscle, fat or water) is largely determined by caloric balance. This balance is the ratio between caloric intake and caloric expenditure. If caloric intake exceeds caloric expenditure the excess energy will be stored mainly as adipose tissue (fat). There must be a caloric deficit, but reducing calories to drastically low levels (under 1200 for women and under 1500 for men) will not result in increased fat loss because your body will establish a new BMR reflecting these decreased calorie levels. Caloric deficit should be approximately 500 less than the expenditure. Hence if you burn 2500 calories per day, you need to consume no less than 2000 calories.

The second key is to consume calories in smaller quantities, more frequently. Instead of three big meals, have three moderate meals with three snacks per day. This keeps the metabolism high and prevents calories that cannot immediately be used from being stored as fat. You should eat at least every 4 hours to keep your body from going into starvation mode and producing fat storing enzymes.

The third and vital point in dieting is to eat foods in the correct ratio. Read your labels. Stay between 10-30% fat content with the foods you eat. Eat all the turkey you want, but skip the gravy. Eat all the bread you want, but skip the butter. The rest of the calories should be comprised of approximately 30-75% carbohydrates and 15-40% protein. To find the correct ratio, look for satisfaction & good energy levels. If, after you eat, signs of sluggishness or cravings appear, adjust the ratios. Several small, low fat meals a day at moderate calorie reduction will prevent metabolic derangement. Simple, right?

So what role does exercise play? You cannot just diet. Exercise will help you to burn more calories per minute. As you exercise, and as you gain muscle mass, you will actually increase your daily metabolic needs. Given equal body weight, even at rest, the individual with more lean body mass will burn more calories. Muscle requires calories to exist even at rest. Fat never requires calories.

Two types of activities will help you lose fat: Anaerobic and Aerobic. Anaerobic exercise is exercise where oxygen is not available to process fuel to the muscles, such as weight training. This type of activity increases your muscle mass. Aerobic activity is exercise where oxygen is available to process fuel. Since fat can only be burned in the presence of oxygen this

type of activity burns fat as a fuel source. Aerobics include biking, running, walking, etc. Muscles give the shape to your body, therefore, to shape your body you need anaerobic work. To reveal this shape, which is often hidden beneath layers of fat, you need aerobics. With the 500 calorie deficit in your diet, exercise should burn an additional 500 calories over your BMR. This will allow you to have a 1000 calorie deficit per day, equaling two pounds of fat loss per week (one pound of fat equals 3500 calories). This is the maximum fat loss physiologically possible.

I have often heard it said that diet is die with a t, and everyone is familiar with No Pain; No Gain. But the key to looking and feeling the way you want to cannot be found in the clichés. Dieting should not entail starvation or strict limitation. You must eat in order to lose fat. Mild restriction of calories, correct ratios of proteins, carbohydrates and fats, and increased frequency of meals creates a program you can stick with and results you can live with. Couple this with aerobic and anaerobic exercise and you have nothing to lose but body fat. Don't try to fool your body. Play by its rules.

Lose 90 Pounds in 90 Days, the ad said. That's 7 pounds per week, and it's not 7 pounds of fat. Ignore the glossy appeal of such magazines and their printed words. Open up and have a big bite of pasta. **You have to eat to lose.**

## EAT TO GAIN

If you continue to look at ads, after being led astray in your efforts to lose body fat, you will find some interesting things; "Gain 30 Pounds of Muscle in 60 Days", is not an uncommon headline to see. Neither is "Add 50 Pounds to Your Bench in One Month!" There is misleading information on the weight gain side of the spectrum also. Is this type of muscle gain possible? Now that you've come down in body fat, and can actually see the muscles showing, you certainly don't want to put the fat back on. Just as you can't let yourself be fooled by weight loss ads, you can't let yourself be fooled by weight gain claims. One pound of muscle per month is a very good gain for beginners, and five pounds of muscle in a year is great gain for advanced lifters. So, what's next: Well, if you're happy with the way you look, you can go to a more moderate way of doing things to maintain your appearance. If you're after a more athletic look, a slightly more drastic change in the diet is needed.

The first step is to cut back on the aerobic activity. This does not mean to eliminate it, but cut back on the duration and frequency slightly. This will allow more of the calories you are consuming to be used for the repair and growth of your body, instead of being used for energy.

Your next step is to modify your diet. This means raising your caloric intake. Now you want to be eating approximately 150-200 calories more per day than needed for a maintenance level (BMR plus activity level). You can find your maintenance calorie level by monitoring your body weight on a weekly basis. If there is no change in body weight, the calories are at a maintenance level. If you are gaining weight, cut back on calories until you find your maintenance level to help assure that any gain is not fat. Then add an additional 150-200 calories per day to this. These additional calories should still be in the correct ratio.

The increased calories should come primarily from low fat protein, such as turkey or fish. The increased protein is going to help build the muscle by supplying the necessary amino acids. Your daily protein intake should be approximately 15-40% of your total calories. There will need to be some individual variances to this figure. I would suggest eating at least six times per day and having a little protein with each meal. The body can only digest and assimilate roughly 25 to 35 grams of protein at any one time.

Fat should still be kept around 10-30% of the total calories each day, with carbohydrates making up the remainder of the calories (approximately 40-75%). Remember, everybody handles these nutrients differently and the ratio of protein, carbohydrate and fat should be adjusted accordingly. Again, most people will need 25% protein, 55% carbohydrate and 25% fat. Again, go by energy levels and satiety, but if you don't feel good with this ratio, adjust your protein and carbohydrate intake and stay within the ranges outlined. It is important to monitor your weight gains with body composition tests to make sure what you are putting on is muscle.

Remember, gaining muscle is a slow process. A lean body mass gain of five pounds in one year is very good. The proper combination of weights, aerobics, and nutrition is very important in achieving your goals. You can take this as far as you want. When you are satisfied with your look you can switch to a maintenance plan. However, that does not mean any of these areas (weights, aerobics, or nutrition) loses importance. With a little effort you will get there. So open even wider and have an even bigger bite of pasta. **You have to eat more to gain.**

## PHILOSOPHY OF SUPPLEMENTATION

Vitamin E Boosts Sex Drive, Vitamin C Cures the Common Cold, Amino Acids, Natural Steroid Replacement; these are just a few of the claims you will find amidst the masses of supplement advertisements. Are they true? Caveat Emptor.

Supplementation is often misunderstood. There is much false and misleading information, as well as bogus product, on the market, which is based on a very simple idea; you are not guaranteed of getting the proper nutrients, in the proper combinations, from your food.

Studies have been performed using various foods to test the nutrient value of each. As an example, oranges were tested to measure their vitamin C content. Some were found to have the Recommended Daily Allowance of 60 mg while others had only trace amounts. Soil quality, shelf life, preservatives, cooking, etc. all have an effect on the nutrient value of foods. This is how proper supplementation is helpful to your diet. Supplements should be from a high quality source. Just because a product has a high concentration of a particular nutrient does not mean that it is in a form that the body can readily digest and use. (You get what you pay for, in this case, and sometimes less.)

Just remember, supplements should be used to supplement your food, not as meal replacements.

## DIET RECOMMENDATIONS

**READ LABELS.** Just because a product says it is low calorie does not necessarily mean it is low fat. Use Percentage of Calories from Fat equation to verify it is low fat.

**AVOID SAUCES.** Even some fat free products contain hidden oils.

Alternatives include: -**BUTTER BUDS** instead of butter or margarine.

-Non-fat plain yogurt or low fat cottage cheese instead of sour cream or mayo.

-**NO OIL/OIL AND VINEGAR DRESSING BY GOOD SEASONS** or **KRAFT OIL FREE ITALIAN DRESSING** (Good on pasta salads, green salad or tuna salad).

-**WEIGHT WATCHERS SPAGHETTI SAUCE AND COCKTAIL SAUCE.**

**COOKING SUGGESTIONS.**

-Bake or Broil. If you must fry, fry in PAM.

-Use MRS. DASH to season.

-Use EGG WHITES not the whole egg.

**SNACK SUGGESTIONS.** Fruits, raw veggies, no sodium pretzels, bagels, unbuttered air-popped popcorn, rice cakes, juice, protein shakes and bars.

**PROTEIN SUGGESTIONS.** Skinned chicken and turkey, fish, egg whites, protein supplements.

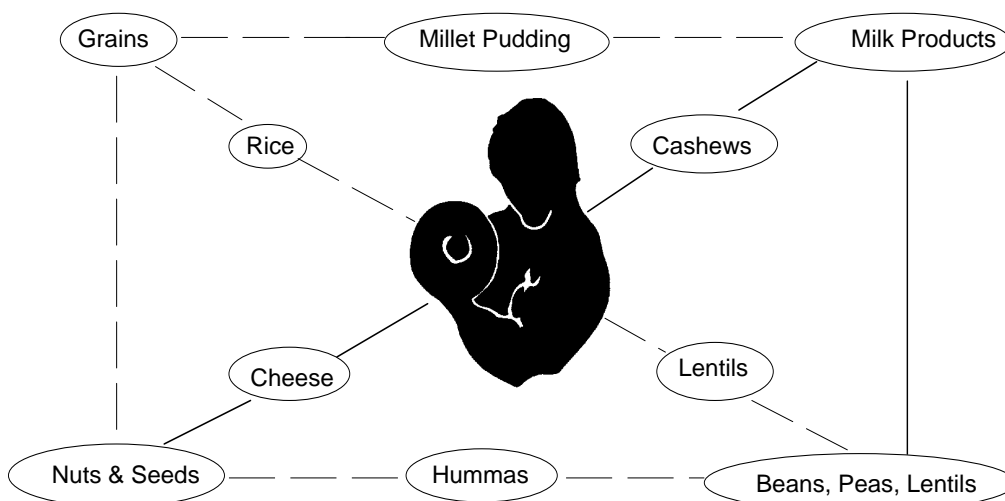
**CARBOHYDRATE SUGGESTIONS.** Rice, pasta, potatoes, whole grain breads and rolls, carbo drinks.

**KEEP IN MIND.** No diet should be below 1200-1500 calories (even women). Eat every 3 to 3 1/2 hours. Eat in the correct ratio. Keep the body guessing, **EVERY FOURTH DAY EAT WHATEVER YOU WANT IN MODERATION**, i.e. red meat or mixed dish items.

# COMPLIMENTARY PROTEINS

Generally Complimentary -----

Sometimes Complimentary \_\_\_\_\_



## ESSENTIAL AMINO ACIDS

ISOLEUCINE (9.1%), LEUCINE (15.1%), LYSINE (5.4%)  
 METHIONINE (2.8%), PHENYLALANINE (2.6%), THREONINE (5.7%),  
 TRYPTOPHANE(3.6%), VALINE (12.7%)

## NON ESSENTIAL AMINO ACIDS

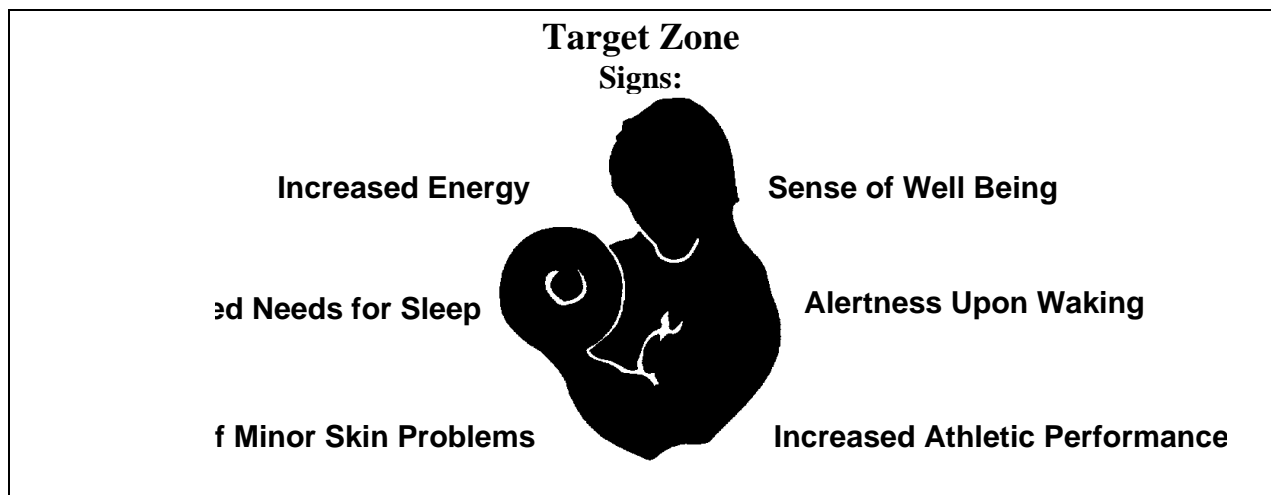
ALANINE (3.6%), ARGININE (2.1%), ASPARGINE (1.4%)  
 ASPARTIC ACID (5.5%), CYSTINE (.2%), GLUTAMIC ACID (13.4%)  
 GLUTAMINE (1.4%), GLYCINE (2.9%), HISTIDINE (1.8%), PROLINE (8.7%),  
 TYROSINE (.7%), SERINE (5.7%), CITRULLINE, ORNITHINE, TAURINE.

\*PERCENTAGE INDICATES THE BEST RATIO FOR MUSCLE REPAIR\*

# ESSENTIAL FATTY ACIDS

Need More Omega 6's and 9's  
(Olive Oil, Nuts, Seeds, etc.)

Signs:  
Increased appetite  
Diarrhea  
Increased urination  
Fatigue  
Nausea



Need More Omega 3's  
(Fish Oils, Flax Seed Oil, Deep Cold Water Fish, etc.)

Signs:  
Constipation  
Fatigue  
Prolonged needs for sleep  
Grogginess upon waking  
Minor skin problems  
Muscle or joint soreness  
Brittle nails  
Brittle hair  
Dry skin  
Headaches  
Lack of appetite  
Anxiety or irritation  
Return of medical problems