

# **FLYING KICK NUTRITION AND FITNESS GUIDE**

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## FAT FACTS

*Does body fat serve any useful purpose?*

Absolutely. The primary purpose of body fat is the storage of energy to be used by muscles. Subcutaneous fat (under the skin) also helps provide warmth and protection for our bodies. Internal fat helps support and provide protection for the spinal cord, heart and vital organs. Body fat is also crucial in the utilization of vitamins A, D, E, and K by the body (these vitamins are fat soluble). In short, you wouldn't be able to survive without some body fat. The real problem isn't body fat, it's **excess** body fat.

*What are some of the health risks with having too much body fat?*

Excess body fat is associated with increased chances for heart disease, high blood pressure, high cholesterol, diabetes, stroke and some cancers. Emotional health and well being are also unfortunately of ten at risk due to societal pressures on being thin.

*Can you also have too little body fat?*

Yes. Just as with having too much body fat, there are also health risks associated with having too little body fat. Some of these include hypothermia, vitamin toxicity, and cessation of menstrual cycle and osteoporosis for women. Remember, some fat is necessary. The fat that surrounds the spinal cord, heart and vital organs is called "essential" fat and is necessary to sustain life. Essential fat makes up approximately 9-10% of total body weight in females and 2-3% in males. The difference in the amount of essential fat between men and women is due to reproductive and hormonal factors.

## HOW TO LOSE BODY FAT - DIET AND EXERCISE

Your eating and exercise habits determine whether you lose (or gain) body fat. They determine how many calories you take in and how many you use up. To lose body fat, you need to control the number of calories you eat from a balanced diet and increase the amount of calories you burn through exercise.

Research shows overwhelmingly that combining the proper diet with exercise is much more effective for losing body fat than dieting alone. Even the most nutritious low calorie diet without exercise will cause some of your losses to be from muscle. A pound of muscle has only 600 calories – or about 1/6 the calories in a pound of fat – and, therefore, can be lost much quicker than fat. Since a pound of fat has 3500 calories, you should expect to lose no more than ½ to 1% body fat per month or 1-2 pounds of fat per week. If you lose any more than that, you're losing muscle too. You simply can't rush fat loss. You don't gain fat overnight, and you don't lose it that way either; but the losses you do get will be permanent. And with the accompanying changes that exercise will make to your body, the results can be remarkable.

Remember to consult your doctor before starting a reduced-calorie diet and exercise program, especially if you have a history of heart problems, haven't had a physical checkup recently, or are pregnant or lactating.

## THE RIGHT WAY TO DIET

Eating properly to lose body fat is easier and more enjoyable than you might think. Most people think of a diet as a temporary way of restricting food until they reach a certain weight goal. It's not. You don't need to go on a specific diet that forbids certain foods or tells you exactly what foods to eat each day. That's something people can stick with for a while; but when they inevitably go off that type of rigid diet, they tend to go back to their old eating habits and gain back any weight they lost. You should never think of being on or off a diet

Instead, you should make your **own** choices within the guidelines of a normal, healthy diet that you can enjoy and continue for life. Eating fewer high fat foods and more fruits, grains, and vegetables is not only the best diet to lose fat, but also for your lifetime.

To lose body fat, there are two things you should think about in deciding how and what to eat:

- ~ Follow a balanced, healthy diet by eating some foods from each food group. Diets which eliminate certain food groups never last long because they don't provide the nutrition you need to stay healthy. The ideal diet should improve your health while you lose fat.
- ~ Reduce the amount of calories in the foods you choose. This doesn't mean you have to count calories or give up your favorite foods. It means choosing low calorie foods more often, without sacrificing the nutrients you need.

A diet based on these two principles – “balance” and “calories” – is the closest thing you can get to a “magic” diet for losing body fat. Eat a variety of foods and don't eat too much of anything

*So what's a healthy diet?*

It's simply following basic dietary guidelines. At a time when we seem to be overwhelmed by what and what not to eat, it's best to look to the experts. The following guidelines have been established by the USDA and Department of Health and Human Services and are also recommended by the American Heart Association and National Cancer Institute. They are the bases of Federal Nutrition Policy and represent the best, most up-to-date advice from nutrition scientists. They also represent the best way to reduce calories when trying to lose body fat:

- **Eat a variety of foods**
- **Choose a diet low in fat, saturated fat, and cholesterol**
- **Choose a diet with plenty of vegetables, fruits, and grain products**
- **Use sugars in moderation**
- **Use salt (sodium) in moderation**

*How do I put these guidelines into action?*

A great way is to follow a system called the Food Guide Pyramid. The Pyramid is a research-based food guidance system that goes beyond the “basic four food groups” to help you put the Dietary Guidelines into action. It is based on USDA’s research on research on foods Americans eat, what nutrients are in these foods, and how to make the best food choices for you.

The Pyramid and accompanying information will help you choose what and how many foods to eat from each food group to get the nutrients you need without getting too many calories – or too much fat, saturated fat, cholesterol, sugar, or sodium.

## YOUR FOOD GUIDE PYRAMID

Your Food Guide Pyramid provides a framework of what to eat each day. It’s not a rigid prescription, but a general guide that lets you choose a healthful diet that’s right for you from foods that are readily available in your supermarket.

The Pyramid calls for eating a variety of foods to get the energy, protein, vitamins, minerals, and fiber you need. Your body needs more than 50 different nutrients for good health. Variety also prevents your diet from becoming boring. The way to assure variety – and with it, an enjoyable and nutritious diet – is to choose foods each day from the food groups shown



## **HOW TO MAKE THE FOOD PYRAMID WORK FOR YOU**

*How many servings are right for me?*

The Pyramid shows a range of servings for each major food group. To lose body fat, you'll need to gradually reduce your food intake down to the lower end of these ranges. Make sure you don't reduce more than one serving per food group per week, however. Cutting your calories too quickly can make it difficult to control your appetite and cause your energy level to drop. This can also cause your body to go into a semi-starvation mode and lower its metabolism to try to preserve its fat stores.

Regardless of your body fat goals, remember to eat at least the minimum number of servings in each food group. You need them for the vitamins, minerals, fiber, carbohydrates, and protein they provide. Just try to choose the foods lowest in fat from each food group.

The servings are intended to be averages over time. They are illustrations of healthful proportions of carbohydrates, fats, and proteins in your diet, not rigid prescriptions. Don't hesitate to fluctuate your number of servings from each food group from time to time. This will help you from experiencing plateaus by not allowing your body to become accustomed to the same number of calories each day.

Don't skip meals! Research shows that people who skip meals (especially breakfast) don't lose fat as readily as those who don't skip meals. Try to spread your daily servings from the food groups out over five to six small meals a day. This can help increase your metabolism by requiring additional energy to digest and process food. Frequent meals also maintain your blood sugar level, which sustains your energy level and curbs your appetite making you less likely to eat too much later and store the excess calories as fat.

## **MAKING THE PYRAMID FIT YOUR GOALS**

Once you've reached your body fat goals, all that is needed to maintain – as opposed to reduce – your body fat is to stabilize the number of servings you eat to the level that's right for you. In other words, after you lose the unwanted body fat, you'll also have the necessary guidelines to control your body fat in the future. If you find you're gaining body fat, simply cut back on your calories by eliminating some of the foods you don't need to provide the fundamental outline for the healthy diet.

## **OTHER CONSIDERATIONS**

### **FOOD LABELS**

If you aren't already, get into the habit of reading food labels. They're a great source of useful information. Due to recent government legislation, most foods in stores must now have a nutrition label and an ingredient list. Included on the label are such things as the amount of fat, saturated fat, cholesterol, sodium, and other important information allowing you to compare

foods and make the best choices. Foods also have their ingredients listed on the label in order of amount from most to least by weight, which allows you to determine the relative contribution and quality of different ingredients.

One word of caution, however – don't be deceived by fancy advertising claims on the front of some products such as "95% fat free" or "2% fat." The claims refer to the amount of fat these foods have by weight or volume, **not calories**. For example, ham that is advertised as "95% fat free" is 5 percent fat by weight, but fat supplies 60% of the total calories. The fat content in "2% fat milk" refers to 2% fat by volume of liquid, but this fat supplies over 35% of the total calories. Be aware also of foods which are advertised as "low calorie." These foods are often low in total calories simply because the serving size is small. By looking at the nutrition label, you'll find they are often 40-60 percent fat. It's unfortunate that companies are able to get away with such misleading claims especially when they appear to be trying to help you; but you should be aware that a claim on the front of a product can say virtually anything because it's considered a title. Until the Food and Drug Administration (FDA) eliminates this practice (which may happen soon), the best way to protect yourself against such misleading claims is to read the nutrition information on the food label. If you get confused, just remember that you can divide the total calories per serving by the calories of fat per serving on the label (usually near the top), to determine the percentage of fat in what you're eating.

## **WATER**

Everyone knows they are suppose to drink between 8-10 glasses of water per day, but not many people do. Water is considered an essential nutrient and your body's need for water is exceeded only by that for oxygen. Over two-thirds of your body weight is water. On average, you lose about a half-gallon of water per day through activity, excretion, and breathing (even more with exercise or hot weather). Replacing this water daily, keeping it circulating through your system so it can perform critical bodily functions, is one of the best things you can do for your health. Water is especially important when trying to lose body fat. Contrary to the belief that drinking water contributes to water retention, keeping you body well hydrated actually discourages your body from sending out survival signals to retain water. It's the best diuretic on the market! Water also keeps hunger at bay by helping you feel full and helps the digestive system work better. **Try not to let a day go by without drinking at least 8 classes of water (64 oz.).** If you don't like the tap water where you live, buy a water purifier. The taste difference can be dramatic. You can meet your water needs with most of your favorite drinks. But don't count those that contain alcohol or caffeine, which actually cause you to lose fluid.

## **EXERCISE GUIDELINES FOR BURNING FAT**

Exercise is the most critical factor in losing body fat. The other major factor – eating properly – will never be completely effective by itself. Regular exercise forces your body to adapt by becoming less fat and more fit. Although the amount of fat loss varies from person to person, a decrease in body fat always occurs as a result of regular exercise. By becoming fit, losing fat takes care of itself.

### *How does exercise help lose body fat?*

- **Increases metabolism.** Some people mistakenly believe that exercise is not worth the effort because of the relatively small number of calories. For example, walking burns about five calories a minute. Since there are 3500 calories in a pound of fat, it would seem that you would have to walk 11 ½ hours to lose a pound. The truth is, however, that even moderate exercise increases your metabolic rate (calorie burning) 3 to 8 times for hours after the exercise. This residual effect of exercise, not the exercise itself, is its greatest benefit for burning calories.
- **Maintains Muscle.** Since every pound of muscle requires 50-100 calories to sustain itself and since fat is burned almost exclusively in your muscles, maintaining your muscle is crucial to losing body fat. Exercise requires you to use your muscles which allows you to maintain (or even increase) the amount of muscle you have. Without exercise, you'll lose muscle and reduce your ability to burn fat. Remember that exercise may allow you to increase your muscle at the same time you're losing fat, and your weight may not change. You will get all the benefits of an improved fat/muscle ratio though, and that's what counts.
- **Increase Fat-Burning Enzymes.** You can't lose fat except by burning it in your muscles. Muscles have very specific enzymes which burn only fat. Research has shown that people who exercise regularly have far greater fat-burning enzymes in their muscles than people who don't exercise. In other words, exercise causes your body to "beef up" its ability to burn fat more efficiently. This means that the more you exercise, the more you use your muscles, and the more fat-burning enzymes your muscles develop to burn more fat.

The benefits of exercise go way beyond losing body fat. Simply put, a fit body responds differently to things than a fat body. Despite what many people think, fit athletes often have less than an ideal diet. But because of exercise and their high muscle/low fat bodies, the consequences are minimal. Things like fat, cholesterol, sugar, salt, etc. simply don't affect someone who's fit the way they do someone who's fat. From a health standpoint, exercise positively affects every organ in your body. Exercise also improves your sleeping patterns, energy level, mood, mental outlook, and overall feeling of well being. The more you do, the more you will want to do as the benefits continue to increase and you get the results you're after. In short, exercise is a must for losing body fat as well as improving the overall quality of life.

### *How do I exercise to lose body fat?*

Any form of exercise is better than none at all for losing body fat and to benefit from the positive changes mentioned above. Any exercise which requires you to use your muscles will cause your body to burn fat **after** the exercise is over – during the "recovery phase" when your body is rebuilding and recovering. To burn fat **during** exercise, however, certain conditions must be met. Your body has different energy "pathways" which burn either fat or sugar during exercise as the primary fuel. Following the simple guidelines below will ensure that your body burns fat during, as well as after, exercise:

- **Type of Activity.** The best exercises for burning fat are those which can be done continuously and involve the most muscle groups (especially the large muscles of the hips and legs). The more muscles used, the more fat you will burn. Exercises which involve movement for brief spurts followed by rest (even though they may be strenuous), use sugar – not fat – as their primary fuel source.

#### Fat-Burning Exercises

##### **(Continuous)**

Walking  
Jogging/running  
Aerobic dancing  
Jumping rope  
Cross country skiing  
Cycling (stationary or outdoors)  
Swimming  
Stair climbing  
Mini-trampoline  
Rowing  
Hiking

#### Sugar-Burning Exercises

##### **(Stop and Go)**

Sprinting  
Tennis  
Racquetball  
Calisthenics  
Basketball  
Downhill skiing  
Square dancing  
Golf

Keep in mind that the exercises in these categories are not black and white. Some exercises are just more efficient for burning fat than others. Even though tennis is a stop and go activity, it will burn more fat in the “recovery phase” than golf simply because it requires more work. Also, since stair climbing uses only the muscles of the legs, it doesn’t burn as much fat as cross country skiing which involves both upper and lower body muscles. There is no one “best” exercise for burning fat among those listed; anyone who says there is, is probably trying to sell you something. The key is **movement!** To burn fat, you have to use your muscles; and to use your muscles you have to move. Just remember, any exercise is good for you. But, the more muscles you use the more continuous you use them, the more fat you’ll burn.

- **Intensity.** This refers to your level of exertion or “pace” during exercise. Although some people still believe that if an exercise doesn’t hurt, it isn’t doing them any good, the “no pain, no gain” theory doesn’t apply to fat-burning. If you exercise at too high an intensity, your body uses sugar as its primary fuel. To burn fat, you should exercise at a moderate, comfortable pace for you (to get the most benefit from exercise, think longer – not harder). A common way to tell if you’re at the right intensity is to check your heart rate (pulse) during exercise since the rate at which your heart beats is directly related to how hard you’re exercising. You can check your pulse on the inside of your wrist or on either side of your Adam’s apple in your neck. Simply count your pulse for 6 seconds and add a zero (0) to that number to get your heart beats per minute – that way, you don’t have to stop exercising for a full minute. Try to check your pulse several times during exercise to make sure you’re at the right intensity (slow down or stop if you need to). To

determine your “target heart rate”, subtract your age from 220 to determine your maximum heart rate. Then take 65% of that number to determine your lower target limit, and 80% to determine your upper target limit. For example, if you are 30 years old:

$$220 - 30 = 190 \text{ (maximum heart rate)}$$

$$190 \times .65 = 124 \text{ (lower target limit)}$$

$$190 \times .80 = 152 \text{ (upper target limit)}$$

If you count 13 beats in six seconds, you would add a 0 making it 130 beats per minute.

### TARGET HEART RATES BY AGE

Age	Maximal Heart Rate	Target Heart Rate Zone (65-80% Intensity)	Beats Per 6 Seconds
20	200	130-160	13-16
25	195	127-156	13-16
30	190	124-152	12-15
35	185	120-148	12-15
40	180	117-144	12-14
45	175	114-140	11-14
50	170	111-136	11-14
55	165	107-132	11-13
60	160	104-128	10-13
65	155	101-124	10-12

- **Duration.** This refers to how long you exercise. Twenty minutes is generally considered the minimum to get fat-burning benefit and to increase the growth of fat burning enzymes in your muscles. Although many experts suggest exercising for up to an hour, this depends on your fitness level. If you're just starting out, go for 20 minutes and try to work up from there. Don't worry about the distance you travel while exercising; the time you exercise is what's important, not the distance.
- **Frequency.** This refers to how often you exercise. Shoot for a minimum of 3 times per week with no more than 2 days of rest between exercise sessions (so you don't lose conditioning). The ideal range is more like 5-6 times per week. If you want to exercise every day, by all means do it; but this again depends on how fit you are. It may be just as effective for you to increase your intensity slightly or your duration on the days you do exercise rather than to add another day. Even the most highly trained athletes need a day off now and then.

### **3 ZONE 20**

A good way to remember these guidelines and the minimum amount of exercise you'll need to burn fat is called 3 ZONE 20. That is, do continuous exercise at least **3** times per week, with your heart rate in your **ZONE**, for at least **20** minutes.

These guidelines are meant to be flexible enough to allow you to see what works best for you. While one person may choose to exercise for 20 minutes every day at the upper limit of their target heart rate, someone else may prefer an hour of exercise 3 times per week at a lower intensity. What you do depends on your fitness level, goals, schedule, activity, intensity, duration, and frequency of your exercise to add some variety and prevent boredom. This will also help you work different muscles in different ways which will increase your overall progress and development and prevent your body from becoming accustomed to the same thing each time. You simply won't feel like doing the same activity, for the same amount of time, at the same intensity, each time you exercise, so don't think you have to. But remember, although you have a wide range of options, the one thing you must do is exercise consistently to get results. Without consistency, none of the other guidelines do you any good.