



What You Should Know About Body Fat

Taking the
Steps Toward
a Healthier Life

How Can I Control My Weight?

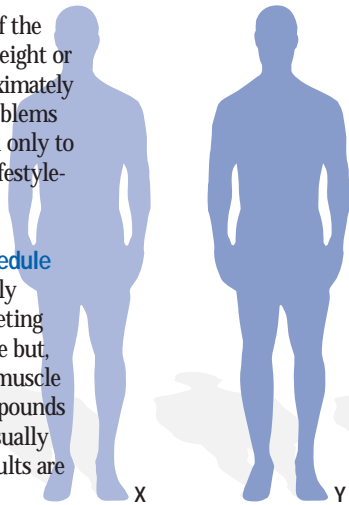
If you or a loved one has thought about this over and over again, don't feel isolated; you're not alone! A recent survey of American adults¹ revealed that 71% of women and 62% of men were trying to lose weight. The problem is that when we recognize we have a problem, most of us aren't sure what exactly we can do to reduce and then control our weight, short of some drastic diet and workout scheme. We need a solution that will fit into our own busy daily schedules and will allow us to gain permanent control of our bodies.

Bad News From the Doctor!

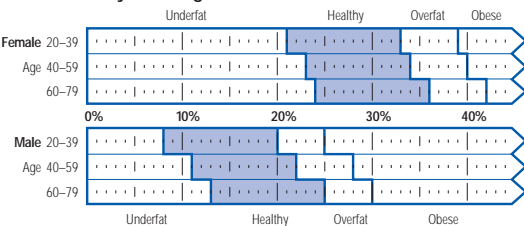
More and more of us are being told, "For the sake of your health, you've got to lose weight, probably 20 pounds or more!" The doctor is right because excess body fat can contribute to medical conditions such as hypertension, heart disease, high cholesterol, diabetes, digestive diseases and even some forms of cancer. And we're not alone! According to the Centers for Disease Control and Prevention (CDC), more than half of the American adult population is overweight or obese (too much body fat). And approximately 300,000 Americans die of health problems related to obesity each year—second only to cigarettes as a leading preventable lifestyle-related cause of death.²

Managing Weight With a Busy Schedule

Contrary to popular opinion, radically reducing calorie intake by drastic dieting may not promote the loss of fat alone but, instead, can cause increased loss of muscle and water. Many people try to shed pounds in such crash programs, but these usually cause much mental anguish and results are rarely permanent.



Body Fat Ranges for Standard Adults^{1,2}



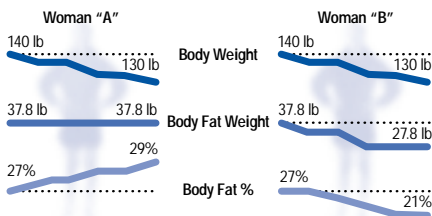
¹ Based on NIH/WHO BMI Guidelines.

² As reported by Gallagher, et al., at NY Obesity Research Center.

To determine the percentage of body fat that is appropriate for your body, consult your physician.

Losing Weight Can Make You Fatter

"A" and "B" were the same height, weight and had the same percentage of body fat. Each lost 10 lb over the same period of time. Although their weights are identical, "A" is now fatter. She simply cut calories, resulting in the loss of muscle tissue, meaning her percentage of body fat increased. By combining a low-fat diet with a program of exercise, "B" lost 10 lb and her body fat dropped to 21%.



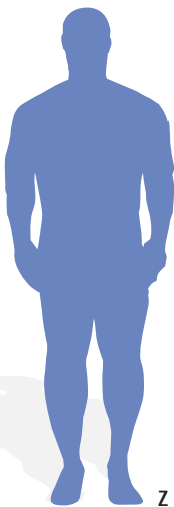
Unfortunately, many are not aware that there is a healthy, permanent course of action. To lose (and keep off) excess body fat, a person has to be convinced of the benefits of leading a healthy lifestyle. This can be attained by modifying eating patterns and committing to a regular, but reasonable, exercise program. Then by the regular monitoring of their body fat, a person can see progress—reinforcing their commitment to continuing the effort.

Why Monitoring Body Fat Is So Important

Body fat is vital to daily body functions; it cushions the joints and protects the organs, helps regulate body temperature, manufactures hormones, stores vitamins, provides a source of energy when food is scarce and helps maintain normal reproductive function. Everyone needs some body fat to operate efficiently and be healthy.

Occasional weighing on a bathroom scale or looking in the mirror may not indicate a "fat" problem. A person may have an acceptable weight and figure, but if their body contains too much or too little body fat, their health could be at risk. By comparison, someone who works out every day may weigh-in at the same weight, but their body is composed of dense, lean muscle and less fat. Neither appearance nor weight alone can tell you your fat-to-muscle content.

The problem is that most people think their weight, when in fact, fat content is a better indication of fitness. But during a well-rounded diet and exercise regimen, weight may fluctuate while body fat will decline in a slow, steady rate. Monitoring changes in both body fat and weight gives a more dependable picture of fitness and is more encouraging because it is a true indication of positive healthy change, compared to monitoring only weight or appearance.



Appearances Can Be Deceiving

"X", "Y" and "Z" are the same height. "X" and "Y" are the same weight, and "Z" weighs considerably more. "Z" appears to be fat. But after analyzing body fat levels, "Y" and "Z" have acceptable percentages, while "X" has above the recommended range and is at a higher risk of developing health problems.

Getting Started



Chances of success are improved by setting up a regimen compatible with your own lifestyle that will reach three goals:

- **Reduce your daily intake of calories** and eat a healthier diet, including more whole grains, fruits, vegetables—all naturally low in fat. Learn the principles of portion control, but don't skip meals or deprive yourself;
- **Complete a moderate series of exercises** each week; and
- **Monitor your body fat** on a regular basis.

Watching Calories and Nutrition

Most people have become aware that eating right will result in maintaining a healthier body and living longer. To lose weight—or more precisely, body fat—the USDA recommends that we lower our total daily caloric intake. Furthermore, it is recommended that no more than 30% of our calories come from fat, and less than 10% from saturated fat³—which does the most damage to heart health. Also your total diet should limit the number of calories, regardless of where they come from (protein, carbohydrates, etc.) to what you actually need. All calories not used through the day are stored in the body as fat. You can ask your doctor, dietician, or personal trainer to recommend a diet tailored for your particular lifestyle and food preferences.

Reading and understanding the nutritional labels⁴ that appear on nearly all packaged foods is the right place to start. Use the labels to help you choose what you buy. And keep them in mind when you go out to eat—although more and more menus are showing some caloric and nutritional information. The nutritional facts on a label can include calories per serving and are further separated into categories such as total fat and saturated fat. Choose foods that are moderate in calories, low in fat and high in fiber. •

Nutrition

Nutrition Facts

Serving Size 1/2 cup (114g)
 Servings Per Container 4

Amount Per Serving

Calories 91 **Calories from Fat** 27

% Daily Value*

Total Fat 3g	5%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 300mg	13%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 3g	

Vitamin A	80%	•	Vitamin C	60%
Calcium	4%	•	Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

		Calories	2,000	2,500
Total Fat	Less than	65g	80g	
Sat. Fat	Less than	20g	25g	
Cholesterol	Less than	300mg	300mg	
Sodium	Less than	2,400mg	2,400mg	
Total Carbohydrate		300g	375g	
Dietary Fiber		25g	30g	

Calories per gram:
 Fat 9 • Carbohydrate 4 • Protein 4

Serving size
 Number of servings

Calories, total fat in grams, saturated fat in grams, cholesterol in milligrams, etc.

Here, the label itemizes the amounts for the different nutrients in one serving. Use it to help you keep track of how much fat, saturated fat, cholesterol and calories you are getting from different foods.

% Daily Value
 This shows how much of the recommended amounts for one day are provided in a serving. For example, if you plan to eat 2,000 calories per day, one serving of this food gives you 5% of your total recommended fat for that day.

Regimen

Roaming Through the Food Groups— for Variety and Health

Use the Food Pyramid⁵ (illustrated on the following page) as a guide to picking out different food types to achieve a variety of taste and texture. It is important to note the difference between sizes of “servings.” The serving-size detailed on most packaged foods does not necessarily correspond to the serving-size suggested in the Food Pyramid. Taking a little extra time to plan out your week’s meals will help keep you on your regimen. The longer you stick to a well-rounded diet, the quicker you are going to see results as you monitor your progress.

On Health

Taking the time to include a variety of healthy components in each meal in moderate size servings, as recommended in the Food Pyramid, pays off by keeping you from getting bored (sometimes a problem with eating healthy). The shelves of your local bookstore abound with cookbooks on choosing and preparing good-tasting and healthy meals, as does the food section of your newspaper and most lifestyle magazines. Remember, you are not alone!

Food Groups	Serving per Day
Meat, Poultry, Fish, Beans, Eggs & Nuts	2-3
Milk, Yogurt & Cheese	2-3
Fruits	2-4
Vegetables	3-5
Bread, Cereal, Rice & Pasta	6-11

Eat Right



Source: USDA

Exercise Regularly and Intelligently

2

Exercise

Cutting fat alone does not work. If you maintain or increase your intake of calories, while reducing or eliminating your intake of fat, (which is practically impossible and unsafe to attempt), you would still not reduce your current body fat percentage. Unless your daily activity involves lots of physical activity, you must include a series of reasonable exercises, done on a daily basis, to burn off excess calories and to begin building lean body mass or, in other words, muscle.

The exercise schedule should be one that you can manage on a daily basis, is comfortable for you to stick with, and fits safely into your own lifestyle. Start out modestly—you can always turn up the gas when you begin to feel really fit!

Adopting new daily habits will begin to make exercise an integral part of your life. For example try these:

- Use the stairs instead of an elevator whenever possible.
- Park at the periphery of the shopping center lot.
- Carry your own packages.
- Stand and walk around the office while reading or thinking.
- Don't eat lunch at your desk, walk to a salad bar.
- Forget the cab, walk to the station. Or just walk!

Source: USDHHS—Exercise and Your Health

Establish a Regular Exercise Program

When setting up your exercise regimen, include two types of formal exercise in addition to the informal activities suggested on the preceding page. Aerobic, or cardiovascular, training (rapid walking, running, biking, aerobic dance, etc.) raises the heart rate and strengthens the heart and lungs while burning calories. When engaging in this sort of exercise, the objective is to raise and maintain your heart rate in a “target heart rate zone.” Try to monitor your heart rate when you’ve reached what you think is a comfortable activity level. Your target zone is 50–75% of your maximum rate, which can be roughly estimated by subtracting your age from 220. Start slowly and gradually increase your efforts to higher levels. And before beginning your new routine, discuss your plans with your physician.

You have to set up a schedule of aerobic exercise, choosing from what is available to you in your daily life cycle. The American Heart Association recommends 30 to 60 minutes of aerobic exercise three to four times a week to promote cardiovascular fitness.

The other form of exercise is resistance training, such as weight lifting, sit-ups, etc. These exercises firm the body and tone the muscles. They are not as efficient at burning excess fat directly, but they help muscles to do their job more efficiently. In addition, toning exercises may make you immediately feel better because they release stress without causing fatigue.

Try mixing both types of exercise, starting out with an emphasis on aerobic workouts, and as you near your goal, switch to a more balanced mix of aerobic and resistance exercises.

Activity	Calories Burned per Hour*
Standing	95–120
Cleaning House	240–300
Walking Slowly (2.5 mph)	210–230
Aerobic Dancing	480–625
Swimming	480–625

*for a 150 lb person

Source: USDA/HHS³

Energy

There Are Added Benefits to Exercising

Exercising will not only reduce body fat, but it will also improve circulation, release stress, raise energy level, plus it will improve appearance and one's self esteem. How can you lose? Some tips for designing and getting started with **your own** regimen:

- **Set quantitative goals.** Write down what you want to accomplish, short and long term.
- **Allot the time.** Set a regular workout time each day and stick to it.
- **Variety helps.** Include as wide a variety of exercises as practical.
- **Exercise with a friend.** Make a commitment and stick with it while you have someone next to you for encouragement. Remember, you are not alone!
- **Keep a daily log.** Mark down your activities, your weight and body fat percentage.

m

Why Living

Why Should I Monitor?

3

You're reading your food labels, adjusting your nutritional and caloric intake, selecting a weekly variety of servings from the Food Pyramid and are sticking to your exercise program. You will certainly want to see how you're progressing—and pat yourself on the back, or stomach, accordingly!

Don't be surprised if your weight increases with the addition of dense muscle tissue as your body fat percentage (and size) comes down. And expect the process to be slow. No matter what method you use to monitor body fat, consistency is the key to gauging percentage of change. It is best to take measurements at the same time each day, but whatever time of day you measure your body fat, try to allow about three hours after rising, eating or hard exercise, and be consistent.

Write these weight and body fat percentage numbers in your daily log and note any unusual events that might have effected your results—like that chocolate sundae you indulged in last Friday.

How Do I Monitor My Body Fat?

Body fat can be measured in several ways. Here are three commonly known methods:

- **Hydrodensitometry** estimates body fat by submerging the body in water and is based on the principle of water displacement. While very accurate, this method is complicated, time consuming, expensive and requires special equipment and a trained technician.
- **Calipers** measure skinfold thickness and fat under the skin. The technique *assumes* a correlation between the pinched thickness and total body fat. Furthermore, calipers rely on the skill and training of the technician, the condition of the calipers used, and the placement and strength of the skin-pinch.
- **DEXA** (dual energy x-ray absorptiometry), which uses low-dose x-rays to quantify bone and soft tissue mass, is fast becoming the "gold standard." It is very reliable, repeatable, safe and presents little burden to the subject. But the cost of equipment is very high, and requires a trained technician—limiting DEXA's availability to laboratories and clinical facilities.

Another method that is gaining wide support by medical and fitness experts is bioelectrical impedance analysis (BIA):

- **BIA** — a safe, low-level electrical signal is passed through the body, and body fat percentage is calculated based on the amount of impedance as the current flows from one point to another. The signal passes much faster through lean muscle than fat because muscle contains 70–75% of the body's water (fat contains almost no water). BIA is most consistent and reliable if you are properly hydrated and if you wait three hours after eating or exercise before the measurement. When these factors are recognized and BIA is practiced consistently, the results correlate well with hydrodensitometry.

A new form of BIA offers the easiest and most convenient method of monitoring by integrating advanced technology and traditional BIA into a “normal” bathroom scale. This innovative product by Tanita allows you to determine your body fat percentage on a regular basis in the privacy of your own home. It enables you to see “inside” yourself and evaluate your results.

Healthy living in three easy steps

The Tanita Way is the philosophy behind the product. It's a three step process that will increase your level of awareness about the health of your body. By reviewing eating habits, developing a well-rounded exercise regimen and monitoring your body fat on a regular basis, you have taken the first important steps toward a healthier body and lifestyle.

Monitor
our
Body Fat

For Further Information About Body Fat, Contact:

The American Dietetic Association
216 W. Jackson Boulevard
Chicago, IL 60606, USA
(312) 899-0040

For a Bariatric Physician Referral, Contact:

American Society of Bariatric Physicians
5600 S. Quebec Street, Suite 109-A
Englewood, CO 80111, USA
(303) 779-4833

The above organizations are for reference only and do not represent endorsement or sponsorship by either party.

Bibliography

1. Annals of Internal Medicine,
Vol. 19, No. 7 (Part 2), October 1993.
 2. Shape Up America!,
PR Newswire, Washington, DC, October 29, 1996.
 3. "Dietary Guidelines for Americans,"
Third Edition, 1990, USDA and HHS.
 4. NIH Publication No. 94-2920,
Revised August 1994, NIH, NHLBI, HHS.
 5. USDA, 1992.
-

This brochure is sponsored by Tanita, the leading producer of professional and personal electronic scales, and the first integrated body fat monitor/scale.



For further assistance and information, contact:

Tanita Corporation of America Inc.
2625 S. Clearbrook Drive, Arlington Heights, IL 60005, USA
1-800-TANITA-8
www.tanita.com



Tanita is a proud sponsor of Shape Up America!
www.shapeup.org
