



OBESITY SERIES

# TIMELY INFORMATION

## Human Nutrition, Diet & Health

---

Department of Nutrition and Food Science, Auburn University, Alabama 36849-5654

### Questions & Answers about Low-Fat Diets, Heart Disease and Cancer

**A federal study involving almost 49,000 women revealed no link between low-fat diets and a reduced risk of heart disease and certain forms of cancer. Why is this study so important?**

The study provides the clearest evidence yet on a subject that has been hotly debated among medical researchers, physicians and nutritionists for years.

It is also considered the most far-reaching research ever conducted on the effects of low-fat diets in reducing major health risks --- not surprising when one considers the study, which cost \$415 million, tracked 49,000 women between the ages of 50 to 79 during an eight-year period.

#### **Does this mean we should abandon low-fat diets?**

Not exactly. The nation's leading physicians and medical researchers still urge Americans to follow a dietary regimen that emphasizes fewer saturated and trans fats and more grains, fruits and vegetables.

The important point to remember is that it is not so much the types of calories you consume but how many. To put it another way, you can cut dietary fat, but if you still consume excess calories each day from sugars and other high-calorie foods and fail to exercise, you'll continue to gain weight and, ultimately, place yourself at a higher risk of chronic disease.

#### **Why is maintaining ideal weight so important?**

Time and again, studies have shown a strong link between obesity and a number of life-threatening disorders, including diabetes, hypertension, cardiovascular disease and certain forms of cancer.

One study, conducted by Johns Hopkins University Medical School indicated that obese men in their twenties could lose as much as 13 years of life because of their high risk of developing chronic diseases, such as diabetes and hypertension.

## **Does this mean that anyone who is overweight should worry?**

No excessive weight is desirable, and anyone with a body mass index (BMI) slightly higher than 25 (now considered the upper level of normal by the U.S. Centers for Disease Control and Prevention) should try to reduce their weight.

However, the people considered at most risk of early death from obesity-related diseases are those with a BMI of 30 or higher.

Here is how to calculate your BMI:

First, multiply your height in inches by your height in inches. Divide the product into weight in pounds. Next, multiply that number by 703 to obtain your BMI.

For example, a person who weighs 220 pounds and is 6-feet, 3-inches tall would calculate as follows:  $220 / (75 \times 75) = 0.039$ . Then,  $0.039 \times 703 = 27.5$ .

## **How serious a risk to health is being obese?**

One study estimates that roughly 112,000 deaths occurring annually in the United States can be attributed to obesity, placing this condition among the top five causes for premature deaths.

## **Why does a BMI of 30 or higher put people at so much greater risk?**

As medical researchers have learned in recent years, all types of body fat are bad, but some are worse than others.

For a long time, many of these researchers assumed that body fat was inert --- merely a place for storing energy. However, as they are learning, body fat, far from being inert, is an active substance within the body. This is particularly true among people with body mass indexes of 30 or higher. People who fit this profile tend to have large amounts of visceral fat, the intra-abdominal fat located deep inside the body that surrounds vital organs, such as the liver and kidneys.

Researchers now believe that people with large amounts of this visceral fat may face an increased risk of developing as many as 30 diseases, many of which are chronic and life-threatening.

One study, for example, revealed a greater risk of leukemia among older, overweight women.

## **How could excessive body fat possibly cause cancer?**

There is a strong link between obesity and hormone-sensitive cancers, particularly certain forms of breast cancer and prostate cancer.

This is not surprising when one considers that fat mass produces steroid hormones associated with these diseases. If you have lots of fat mass, you produce a lot more of these hormones than someone who lacks this mass. Cells exposed to these hormones can become metabolically active and begin dividing at abnormally high rates, possibly leading to breast cancer among women and prostate cancer among men.

Researchers also suspect a link between body fat and colon cancer, though not in the same way as hormone-related cancers.

## **What does body mass index have to do with metabolic syndrome?**

Actually, the two are closely related. Metabolic Syndrome is one of the potentially deadly effects of a high body mass index, especially among apple-shaped people.

Studies have shown that many of the markers associated with chronic diseases --- hypertension, heart disease and diabetes, in particular --- tend to be present in the blood samples of people matching this profile. These markers include high levels of cholesterol and triglycerides, low levels of the so-called "good" or protective HDL cholesterol and elevated blood sugar levels.

Even without blood tests, a potbelly should be considered strong evidence of metabolic syndrome. Granted, people with excessive abdominal fat may not suffer from all of the problems associated with this condition, but there is a strong chance that they do.

## **How do I know if I suffer from Metabolic Syndrome?**

A good place to start is to measure your waistline. If it is anywhere near 40 inches or more for men or 35 inches or more inches for women you should consult your doctor to see if you actually suffer from any of the conditions associated with metabolic syndrome.

Even if you are not overweight, a tummy paunch may be strong evidence of excessive weight in your abdominal area.

Having at least one sibling or parent who suffers from type II (formerly known as adult-onset) diabetes is another major risk factor.

## **Are all obesity-related diseases potentially life threatening?**

Many of them are, though not all of them. Yet, even those that are not life threatening may be life changing.

A case in point is gallbladder disease. It is unusual to find many thin, physically active people with this condition. Gallbladder disease, in fact, is usually preventable through diet and exercise.

Obese people who develop this condition probably aren't going to die from it, but the disease can be extremely painful and, more often than not, require surgery.

Osteoarthritis, another typically nonfatal but nonetheless crippling disease, also is linked with obesity.

**If low-fat diets now are considered ineffective in reducing these chronic diseases, what else can be done to lower these risks?**

Strive to maintain an ideal body weight, which typically requires eating more responsibly and exercising more.

While medication is available to treat cholesterol, diabetes and other conditions related to metabolic syndrome, no pill has yet been developed to treat all of these problems at once. That is why healthy diets --- low-fat, low-sugar and low-calorie foods, particularly whole grains and fruits and vegetables --- coupled with exercise remains the most ideal way to address the problem.

**What if I don't have the time or inclination to diet or exercise strenuously?**

Exercise is just as important as healthy eating in reducing obesity-related risks. Even so, it doesn't have to be as intrusive as you fear. Even moderate levels of exercise on a daily basis can, along with changes in eating patterns, go a long way toward reducing your level of risks. You may even consider breaking up your exercise into small segments throughout the day --- just be sure to move every chance you get.

Compiled by Jim Langcuster, Extension news and public affairs specialist, Alabama Cooperative Extension System, in cooperation with Dr. Robert Keith, Extension nutritionist and Auburn University professor of nutrition and food science.