



## The Scales Can Lie: Hidden Fat – by Ron Winslow

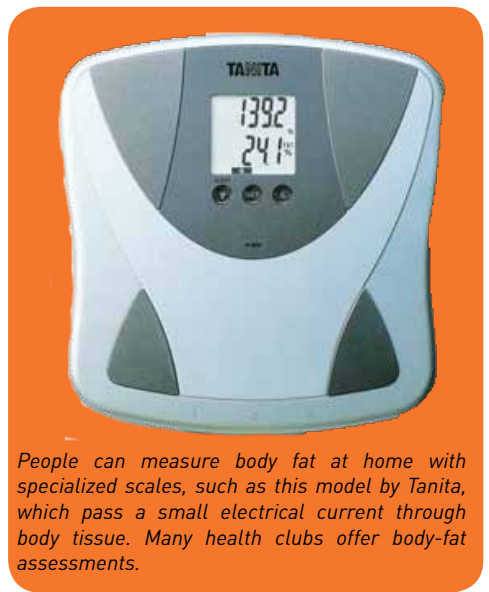
### *New Study Argues Even Thin People Can Face Health Risks From Fat; It's 'Normal Weight Obesity'*

Can you be normal weight and fat at the same time?

That's the implication of a provocative recent report from the Mayo Clinic, which suggests that fat in your body can get you and your heart into trouble even if you don't look fat and if the scale tells you you're healthy.

The Mayo researchers, led by cardiologist Francisco Lopez-Jimenez, have coined a term for the phenomenon: normal weight obesity. In a study that looked at data from 6,171 Americans with normal body size, as measured by body mass index, those with a high percentage of body fat were at significantly greater risk of future heart problems than those with low amounts of fat. Their bodies "behave like they are obese, but they are not," Dr. Lopez-Jimenez says.

People don't have to be overweight to have excess body fat. Instead, these people have a higher ratio of fat to muscle tissue than do people with low body fat. Indeed, even people of the same weight, or those with comparable body mass index, which factors together weight and height, can have different body-fat percentages.



People can measure body fat at home with specialized scales, such as this model by Tanita, which pass a small electrical current through body tissue. Many health clubs offer body-fat assessments.

Based on results of the nine-year study, as well as U.S. Census and obesity data, Dr. Lopez-Jimenez and his colleagues estimate that as many as 30 million Americans may fall into the normal-weight-obesity category, many of them unaware they may be at increased heart risk.

Still, body-fat assessment is a common feature at many gyms. At Equinox Fitness Club, a national chain based in New York, members get a body-composition test as part of an initial assessment before they begin a training regimen. "This is a culture obsessed with weight, but very little attention is paid to

### **Fit Versus Fat**

*BMI, or body mass index, is a key indicator of healthy weight.*

- Calculate by dividing your weight in kilograms by your height in meters squared. Or go to [www.nhlbisupport.com/bmi](http://www.nhlbisupport.com/bmi) for an online tool and plug in your particulars. Body fat can still be high, even when weight is healthy.
- Calculate body fat percentage using a process known as bioelectrical impedance analysis, which passes a small electrical current through body tissue. Specialized body fat bathroom scales for home use are available for purchase at drug stores or online, but offer varying levels of reliability. Skinfold tests are another technique. While some doctors may offer such tests, you're more likely to find them at health clubs.
- Generally, body fat percentages over 25% for men and over 35% for women are considered high. Preferred targets are considerably lower. But there isn't a professional consensus on an optimal level.

Source: WSJ research

The study "drills down on a population where we're making assumptions that everybody is healthy. It may well be that they're not," says Robert Eckel, an obesity and metabolic-syndrome expert at the University of Colorado, Denver, who wasn't involved with the study.

But Dr. Eckel and other medical experts caution that the findings need to be validated with additional research. Big epidemiological studies such as the Mayo report are useful for spotting important trends and raising hypotheses for further inquiry. But they are not necessarily reliable for prescribing specific remedies for individual patients.

Indeed, Dr. Eckel says he doesn't think the study's results mean people should have their body fat measured to assess their cardiac risk. Generally, a little extra weight around the middle among normal weight people should be a sufficient wakeup call, other doctors say. More research is needed to determine whether reducing body fat percentage in such people would lower risk of heart disease.

the composition of that weight," says GERALYN COOPERSMITH, an exercise physiologist and senior national manager for Equinox's training program.

Among some of the Mayo Clinic study's findings: High body fat among normal-weight men and women was associated with a nearly four-fold increase in the risk for metabolic syndrome—a cluster of abnormalities including elevated blood sugar and blood pressure. This syndrome is common among people who are obese and is an increasingly important precursor to diabetes and cardiovascular disease. For women, high body fat meant a heightened risk of being diagnosed with cardiovascular disease over the course of the study. Both men and women had a higher risk of abnormal cholesterol and men with high body fat were more likely to develop high blood pressure.

The research suggests that body mass index, or BMI, the tool doctors and researchers often use to determine whether a person is obese,

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may fall short in some cases as an indicator of good health. BMI is obtained by dividing your weight in kilograms by your height in meters squared. People with a BMI between 18.5 and 24.9—the range for the participants in the Mayo study—are considered to be normal weight under government guidelines. A BMI of 30 or higher indicates obesity, while people in the range from 25 to 29.9 are considered overweight. The overweight category in particular has generated controversy because many people who exercise regularly and are considered fit have BMIs above 25.

Dr. Lopez-Jimenez says that measuring body fat could help identify previously unappreciated risk in the normal-weight population. He likens the issue to cholesterol. Total cholesterol below 200 has long been considered a heart-healthy target, but research has also shown that people can have “healthy” total cholesterol but low levels of HDL, or good cholesterol, and high levels of LDL, or bad cholesterol, that put them at heightened risk for heart attacks.

Monika Sumpter, a 34-year-old training manager at Equinox Fitness in New York City, says she once weighed 170 pounds and had a body fat percentage of “a little over 30%,” a high reading. She says she lost 45 pounds with diet and some aerobic exercises, but reduced her body fat percentage only to about 25%. So, over the past 18 months, Ms. Sumpter says she added strength training and other exercise to her cardio workout. Although she has put 20 pounds back on, her body fat percentage is down to 14%, she says.

For consumers, conversations about body fat and body composition are more likely to happen during a workout with a personal

trainer than at a doctor’s office during an examination. The test isn’t a widely accepted clinical measurement. And there isn’t a consensus among medical experts about what percentage of body fat is “normal” or what level indicates higher risk.

Some gyms have their own guidelines. At Equinox Fitness Club, trainers consider body composition and waist circumference—another indicator of body fat—more important in assessing fitness of many members than weight. The club’s Ms. Coopersmith says that, based on data from the American College of Sports Medicine and the American Council on Exercise, Equinox considers body fat percentages between 25% and 31% for women, and 18% to 26% for men, as “acceptable.” Women with body fat of 21% to 24%, and men with 14% to 17%, are “fit.” People who reach even lower levels of body fat are considered “athletic,” she says.

The findings of the Mayo study, which was published in November in the *European Heart Journal*, suggest that reducing heart risk requires increasing the percentage of lean muscle mass at the expense of body fat. That underscores the importance of exercise in maintaining cardiovascular health—including weight lifting and other resistance training, which helps build lean body mass.

Eating a healthy diet is important in reducing body fat, too, but Dr. Lopez-Jimenez observes

that if you only restrict calories, you risk losing an equal amount of body fat and lean muscle tissue and thus you could end up weighing less without significantly reducing the percentage of body fat.

Sara Bakken Lee, a 39, a Mayo Clinic staffer, is stepping up her weight training as part of an intense regular exercise program in an effort to get her body fat percentage to 23% from about 26% in December.

When she began to target body fat in her exercise program two years ago, her BMI was 26, just slightly into the overweight category. “I didn’t like being in that category when I didn’t think of myself as being overweight.” Her body fat at the time was 33.7%.

This December, after losing weight on a diet and continuing with a six-day exercise program, her BMI was 23.4, with body fat at 26%. “I’m in the moderately lean category, which makes me very happy.” She hopes to reach a body fat level of 23% by June by adding a third day of weight-lifting to her workout routine.

“If you’re at a sloppy normal weight, that’s not going to be good for you,” says John M. Jakicic director of the physical activity and weight management research center at University of Pittsburgh, who wasn’t involved with the study. “It argues that exercise is the intervention we should be targeting.”



## The Hidden Benefits of Exercise

### *Even moderate physical activity can boost the immune system and protect against chronic diseases*

As millions of people flock to the gym armed with New Year's resolutions to get in shape, medical experts are offering an additional reason to exercise: Regular workouts may help fight off colds and flu, reduce the risk of certain cancers and chronic diseases and slow the process of aging.

Physical activity has long been known to bestow such benefits as helping to maintain a healthy weight and reduce stress, not to mention tightening those abs. Now, a growing body of research is showing that regular exercise can boost the body's immune system, increasing the circulation of natural killer cells that fight off viruses and bacteria. And exercise has been shown to improve the body's response to the influenza vaccine, making it more effective at keeping the virus at bay.

"No pill or nutritional supplement has the power of near-daily moderate activity in lowering the number of sick days people take," says David Nieman, director of Appalachian State University's Human Performance Lab in Kannapolis, N.C. Dr. Nieman has conducted several randomized controlled studies showing that people who walked briskly for 45 minutes, five days a week over 12 to 15 weeks had fewer and less severe upper respiratory tract infections, such as colds and flu. These

subjects reduced their number of sick days 25% to 50% compared with sedentary control subjects, he says.

Medical experts say inactivity poses as great a health risk as smoking, contributing to heart disease, diabetes, hypertension, cancer, depression, arthritis and osteoporosis.

Even lean men and women who are inactive are at higher risk of death and disease. So while reducing obesity is an important goal, "the better message would be to get everyone to walk 30 minutes a day" says Robert Sallis, co-director of sports medicine at Fontana Medical Center, a Southern California facility owned by managed-care giant Kaiser Permanente.

Regular exercise has been shown to combat the ongoing damage done to cells, tissues and organs that underlies many chronic conditions. Indeed, studies have found that exercise can lower blood pressure, reduce bad cholesterol, and cut the incidence of Type 2 diabetes.

Building on that earlier research, scientific studies are now suggesting that exercise-induced changes in the body's immune system may protect against some forms of cancer. For example, Harvard Medical School's consumer Web site ([hms.harvard.edu/public/consumer](http://hms.harvard.edu/public/consumer)) notes that more than 60 studies in recent years taken together suggest that women who exercise regularly can expect a 20% to 30% reduction in the

chance of getting breast cancer compared with women who don't exercise. While researchers are still studying the molecular changes caused by exercise and how they affect cancer, the studies suggest the outcome could be due to exercise's ability to lower estrogen levels.

One study of 3,000 women being treated for breast cancer, published in the *Journal of the American Medical Association*, showed that for those patients with hormone-responsive tumors, walking the equivalent of three to five hours per week at an average pace reduced the risk of dying from the disease by 50% compared with more sedentary women.

Researchers are also investigating whether exercise can influence aging in the body. In particular, they are looking at whether exercise lengthens telomeres, the strands of DNA at the tips of chromosomes. When telomeres get too short, cells no longer can divide and they become inactive, a process associated with aging, cancer and a higher risk of death.

In a study published in November in *Circulation*, the medical journal of the American Heart Association, German researchers compared two groups of professional athletes (32 of whom were in their early 20s, and 25 who were middle-aged) with two groups (26 young and 21 middle-aged) who were healthy nonsmokers, but not regular exercisers. The athletes had significantly less erosion in telomeres than their more sedentary counterparts. The study concluded that physical activity has an anti-aging effect at the cellular level, suggesting exercise could prevent aging of the cardiovascular system.

While some patients may have risk factors such as heart conditions that could lead to heart attacks and sudden cardiac death with physical exertion, physicians can screen for such risks before prescribing an exercise program. Also, the [exerciseismedicine.org](http://exerciseismedicine.org) Web site includes videos and self-assessment tools for consumers on how to start an exercise program.

Starting an exercise program can have benefits at any age, but is particularly important for those over 40, when physical strength, endurance, flexibility and balance

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begin to decline, says Pamela Peeke, a Bethesda, Md., physician and fitness expert who is the author of "Fit to Live," an advice book on how to create and stick to a fitness plan.

Naomi Henderson, 66 years old, says Dr. Peeke gave her an exercise prescription several years ago, when she weighed 100 kilograms. The plan called for Ms. Henderson, who owns her own market-research company, to start by walking on a treadmill five minutes a day and gradually increase the duration as her fitness level improved. Eventually she was able to walk in a marathon. Ms. Henderson says she has slimmed down and says she is rarely ill. "I look at exercise as no different than a drug I have to take to stay healthy," she says. Lisa Callahan, co-director of the Women's Sports Medicine Center at New York's Hospital for Special Surgery, says her patients are often only partially aware of the benefits of exercise.

They may know that it is helpful in reducing their risk of osteoporosis, but they usually don't know that a combination of strength training, aerobic exercise and balance training is most effective at staving off the disease, says Dr. Callahan, who is the author of "The Fitness Factor," a guide for women.

Dr. Nieman, of Appalachian State University, says that during exercise, two types of immune cells circulate more freely in the blood, neutralizing pathogens. Although the immune system returns to normal within three hours, the effect of the exercise is cumulative, adding up over time to reduce illness rates, he says. He compares the process to "a cleaner who comes in for an hour a day, so by the end of a month, your house looks much better."

But, Dr. Nieman says, high-intensity exercise over long periods, like running a marathon, can "take a good thing too far." Such exertion can induce the release of stress hormones

in the body that damp some functions of the immune system temporarily, increasing susceptibility to infection for short periods. He cites a five-year study he conducted on 350 athletes who completed an ultramarathon 160-kilometer race in the Sierra Nevada mountains. Among the contestants, one out of four reported sickness in the two weeks following the races.

Still, says Robert Mazzeo, a professor in the department of integrative physiology at the University of Colorado in Boulder, long-term training in marathoners and other athletes can boost their baseline immunity and ability to respond to the stress of intense exercising.

Rather than worrying about super athletes, however, "my concern is the sedentary people who start out pumping the Stairmaster too hard, then get sick and stop working out," says Dr. Mazzeo. "If you've made a New Year's resolution to get in shape, don't try to do it all at once."

## 6 Tips to Increase Metabolism



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Lately it seems I have been seeing more "under-eaters" than "over-eaters". Giving advice to an "over-eater" is easy in the sense that they just need to find a way to control their eating and burn more calories. An "under-eater" is someone who really has been trying but who has done so much "yo-yo" dieting that their metabolism has shut down and they are no longer losing weight. This article speaks of the under-eaters.



Let's go back to the days of the Neanderthals - living in caves, hunting for food and creating fire. They weren't as knowledgeable as humans today, but Neanderthals understood metabolism. They understood that in order to create and sustain a fire they must continuously fuel the fire. Fire wasn't an easy thing to make without the use of matches so they were constantly feeding the fire what it needed for fuel: wood. As soon as they left the fire unattended the fire would go out and again they would begin the long process of making a fire. Seems simple right? Fuel the fire with wood. Let's relate that back to metabolism.

The fire represents metabolism and the wood represents food. When you consistently fuel your body with food your metabolism is working, stop fuelling and metabolism shuts down. YOU shut down. The fire in your belly goes out. So what happens when metabolism shuts down? You're body goes into something else Neanderthals also understood: Starvation. When you skipped breakfast because you didn't have time; then ate a big lunch at noon because you were starving; and then had a late dinner because you were stuck in traffic on your way home; your body

entered starvation mode. When your body is starving it will convert fuel to fat in order to survive through famine. Yes, your body thinks it's starving so it will store all those calories to fat to use at a later time. This simple process produces weight gain.

To keep lean you must fuel the fire. Here are 6 tips to keep your metabolism boosted:

**1** Strength Training - an increase in lean muscle tissue will speed up your metabolism as lean muscle burns more calories than fat tissue. Strive for 2-3 Strength Training workouts a week.

**2** Eat Breakfast - Eating breakfast tells your body to start using energy and gets it moving before you can enter into starvation mode. On the go - make a smoothie with some protein powder, 1 cup of low-fat milk, 1 tsp of ground flax and ¼ of frozen blueberries. Remember that not eating breakfast can cause a five-percent drop in metabolism.

**3** Smaller & Frequent Meals - to keep your metabolism from entering into starvation mode you must eat 4-6

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small meals a day. Choose lean proteins and whole grains which are high in fibre. This will act as constant fuel and keep your metabolism strong.

**4** Metabolism Boosting Foods - Green tea is said to increase your metabolism. Even if it doesn't do much, it's chocked full of antioxidants as well and is a better option than coffee. Coconut oil, grapefruit, papaya, and apple cider vinegar

may also increase your metabolism naturally.

**5** Eat well – eat foods with lots of roughage and fibre. These will move through your system faster than unhealthy food which our colons struggle to process.

**6** Water – Drink lots of water; especially if you are exercising and eating lots of high fibre foods. It not only keeps you

hydrated, it helps everything move through your digestive track.

If you have any questions on how to incorporate these tips into your life or any questions at all in relation to health and fitness please feel free to email me at [micaelafitness@gmail.com](mailto:micaelafitness@gmail.com)

## Ankle Sprains

### ***Ouch! You've sprained your ankle.***

Ankle sprains are a common but painful injury that can happen in sports like running, soccer, basketball or volleyball, or simply by stepping unexpectedly onto an uneven surface.

The ankle joint is made up of three bones - the tibia, the fibula and the talus. The talus is held between the other two bones primarily by ligaments. These ligaments are like thick elastic bands and they give the ankle stability. The muscles that move the ankle come from below the knee and are attached to bones in the foot by their tendons, which pass over the ankle joint.

When an ankle is sprained, the ligament has either been over stretched, partially torn or completely torn. Ankle sprains are classified as Grade Type I (mild), Grade Type II (medium), and Grade Type III (severe). Most ankle sprains cause injury to the ligaments on the outside of the ankle.

Initial treatment for all sprains is rest, ice, compression and elevation (RICE), as soon as possible and for 72 hours after injury.

The RICE method helps promote healing, decreases pain, and reduces swelling around the ankle joint. Mild sprains may only require an elastic bandage for compression, while the more severe sprains require a splint or a cast. Similarly, the severity of the injury will determine whether crutches are required and for how long. Most ankle sprains heal in three to eight weeks, but when the injury is more severe it will take longer to regain ankle stability.

Physiotherapy treatment can start very early after an injury. Rehabilitation techniques will help reduce the time that your ankle is painful and ankle movement is restricted so that you can get back to work and activity

more quickly. Early treatment will reduce the swelling and pain, making it easier to walk. Even one treatment and appropriate advice can make a significant difference.

### **Stretch**

Stretching is an important part of the healing process. It helps:

- Regain full movement,
- Increase circulation that aids the healing process;
- Maintain muscle strength; and
- Maintain soft tissue flexibility.

Stretches for the ankle concentrate primarily on the gastrocnemius and soleus muscles (calf) and the hamstrings (back of thigh), but include other muscle groups in the leg such as the quadriceps (front of thigh). Stretching should always be done in the 'pain free range' to get the most benefit. As you gain range, you will be able to stretch further.

### **Move**

The severity of the sprain will determine when you begin moving the joint. It is important to allow adequate healing time to regain the stability the ligaments provide. Avoid damaging the ankle further by doing too much too soon, whether it is exercise, standing or walking. Exercise programs for the injured ankle should progress gradually from range of motion and muscle strengthening in the pain free range to more demanding activities like exercises done while standing. The strengthening program should include exercises for the muscles that work with the damaged ligament(s) to give the joint additional support.

When the sprain has healed enough to tolerate it, exercises done on a wobble board or on a mini-trampoline will help retrain balance.

### **Add it up**

When recovering from an injury, it is

important to take into consideration the effect of the entire day's activities on the injured joint. If you have been doing a lot of walking on a given day, it may be wiser to do non-weight bearing aerobic work for the leg such as swimming, pool running or stationary bike, as cardiovascular fitness is required no matter what sport caused the injury.

Plan your activities so you can build rest into your day. Make sure your rehabilitation program includes exercises that will help you regain your overall conditioning as well as those that are specific for the ankle. Remember to use RICE if you do overdo it on occasion!

### **Reduce strain**

There are a number of things you can do to protect the injured ankle while it is healing and to minimize the risk of re-injury.

- Wear high-top running shoes or a brace in your running shoes. These braces protect the ankle joint by blocking ankle movement in the direction of the sprain;
- A physiotherapist can tape your ankle if this is required;
- Gradually build your level of activity and sport to regain your pre-injury level of conditioning;
- Expect some discomfort as you progress in your rehabilitation but learn to recognize your body's limits. Your ankle should not be sore and swollen for an extended period of time after exercise;
- Avoid activities on slippery or uneven surfaces and in areas with poor lighting; and
- Always warm up before exercise and include a cool down after every session.

If you have any questions concerning your ankle or any other injury, please feel free to contact the health clinic at 514-390-1230.

This excerpt is taken from the Canadian Physiotherapy Association.