



### Focus on muscle, fat – not weight

ONLY three days into the New Year, many people have already broken their weight-loss resolutions. On the surface, losing body weight seems simple. Just eat less. Many fad diets capitalize on this, prescribing "special" foods and pills that cause water loss.

The weight loss is rapid but brief. And it comes back just as quickly as it left.

This focus on losing weight misses the mark. People really want to change the amount of fat on their bodies. Fat loss boils down to burning more calories than you eat over a period of time. Of course, this is easier said than done.

A pound of body fat tissue contains a lot of calories, the most common estimate being about 3,500 calories. In other words, you need to burn up about 3,500 calories more than you eat to lose a pound of fat.

To put this into perspective, many adult women and older individuals have calorie requirements equivalent to 3,500 to 4,000 calories for a two-day period. So, eating a calorie-free diet for two days would cause no more than a 1-pound loss of body fat! Weight loss would be greater, due mainly to water loss that comes back

quickly.

To lose a pound of fat through exercise also takes time. It only takes about 100 calories to walk a mile, so a 35 mile walk would burn 1 pound of fat. The only way to lose fat is gradually -- the same way it was gained.

It is time for new approaches that may be slower, but deliver real fat loss -- not just weight loss. They also have great benefits, including a healthier, better-looking body.

ACTIVITIES that use and build muscle can increase daily calorie requirements. Muscle, even at rest, uses a lot more calories than fat tissue. Just having more muscle can increase calorie needs and promote fat loss. From a health perspective, increasing muscle mass can be an important factor in strengthening the immune system.

A person also can change the quality of the muscle. With increased use, a muscle gets better at storing glycogen (carbohydrate) and burning fat.

Building muscle requires strength training and an adequate intake of protein and carbohydrate. With proper resistance exercises such as weight-lifting, muscles gradually build more bulk to adapt to the new demands. Increased

muscle mass adds new "metabolically active" tissue to the body and uses more calories even during inactivity or sleep.

Resistance exercise required for building muscle must be supported by adequate nutrition. It has been estimated that building 1 pound of muscle in a week requires an additional 400 calories per day plus an extra 14 grams of protein per day (2 cups milk, three eggs, 3.5 ounces of firm tofu, or 2 ounces of fish, chicken or meat).

Some of the extra calories needed to make muscle can come from body fat. It is important, however, to eat reasonable amounts of carbohydrate since carbohydrate is the major fuel source used by the body during high-intensity exercise. Remember, if the body runs too low on carbohydrate, it starts breaking down muscle tissue.

Lower-intensity exercises such as walking, dancing, jogging, biking, and swimming train muscles to get better at burning fat for fuel. So this year try the new approach of building muscle and being active. Then next year at this time the only weight-related resolution you will need to make will be to keep up the good work.

---

Alan Titchenal, Ph.D, CNS and Joannie Dobbs, Ph.D, CNS  
are nutritionists in the Department of Human Nutrition, Food and Animal Sciences,  
College of Tropical Agriculture and Human Resources, UH-Manoa.  
Dr. Dobbs also works with the University Health Service.

---