

Losing Fat and ONLY Fat

Let's pretend freeway signs do not indicate the cities they lead to. You're in San Diego and want to drive to San Francisco. At the very least, you know you need to travel north. If you left now - just winging it by picking highways that go north (sounds like a potentially wild trip) - you could get to San Francisco...but you could also arrive in Sacramento, Reno, or even Salt Lake City. In any of those instances, you accomplished the goal of going north, but you didn't really get to your target.

Weight loss works the same way. People who want to lose weight typically desire leanness AND more visible muscles. That's the specific destination. By looking at your scale, you can see that your weight is decreasing...but are you really getting to your target destination? In other words, are you losing just fat, or are you losing fat along with muscle and other tissues? Going north does not mean you will get to San Francisco, and losing weight does not necessarily imply that you will be leaner WITH better muscle tone.

Improving eating habits has the most influence on losing weight. However, diet by itself leads to indiscriminate weight loss: fat, muscle, bone, water...it all goes. Thankfully, there is a way to minimize or eliminate muscle loss during diet-induced weight loss: strength training.

A 2007 study put overweight and obese women through 25 weeks of a restricted diet that was complimented with either "aerobic" activity, or strength training, or no exercise at all[1]. Both the strength training and "aerobic" groups lost 26 lbs. of fat, slightly more than the women who only dieted. However, here's the difference: the strength training group not only maintained their lean mass (muscle, bone, water, and other organs), but actually gained a little. The "aerobic" and diet-only groups lost two and three pounds of lean mass.

That may not sound like a major difference to you, but it is significant. We all know about the weight loss roller coaster that many struggle with. A person may lose 20 lbs., gain 15, lose 10, etc. Changes in lean mass correlate strongly with changes in resting metabolism, which is 60-70% of the total energy we use (or calories that we "burn").

The women who strength trained demonstrated no statistical difference in resting metabolism before and after the weight loss. On the other hand, resting metabolism decreased 75 and 103 calories per day in the "aerobic" and diet-only groups. With a slower metabolism, maintaining the fat loss will be more challenging for the women in the latter two groups.

The preservation of lean mass with strength training during diet-induced weight loss is not limited to just women. Research shows men following this approach maintain lean tissue while losing just fat [2]. The studies also show that "aerobic" activity generally maintains muscle during weight loss better than not doing any exercise, but not to the same extent that strength training can.

Let's be honest: most of us don't just want a lower scale number. We also want to look toned and defined (with the muscles in our arms, thighs, and abs able to be seen). If we lose muscle while losing weight, we're not getting much closer to those goals. Changing eating habits is the most influential method for losing weight, and strength training is the most effective method ensuring that the lost weight is only fat. To continue the analogy from above, if you want to drive to San Francisco, you want to park your car at the end of the day in San Francisco, not Reno.

References

1. Hunter, Gary R., et al. "Resistance Training Conserves Fat-free Mass and Resting Energy Expenditure Following Weight Loss." *Obesity* 16.5 (2008): 1045-1051.
2. Stiegler, Petra, and Adam Cunliffe. "The role of diet and exercise for the maintenance of fat-free mass and resting metabolic rate during weight loss." *Sports Medicine* 36.3 (2006): 239-262.