

## HOW WOMEN BUILD MUSCLE

**T**here are more myths and misconceptions about strength training than any other area of fitness. While research continues to uncover more and more reasons why working out with weights is good for you, many women continue to avoid resistance training for fear of developing muscles of Herculean proportions.

Other women have tried it and been less than thrilled with the results. "Don't worry," people say. "Women can't build muscle like men. They don't have enough testosterone." This is, in fact, only partly true.

Many women, believing they wouldn't build muscle, hit the gym with a vengeance and then wondered why, after several weeks of resistance training, their clothes didn't fit and they had gained muscle weight.

The truth is, not everyone responds to training in quite the same way. While testosterone plays an important role in muscle development, the answer to why some men and women increase in muscle size and others don't lies within our DNA.

We are predisposed to respond to exercise in a particular way, in large part because of our genetics. Our genetic makeup determines what types of muscle fibers we have and where they are distributed. It determines our ratio of testosterone to estrogen and where we store body fat. And it also determines our body type.

### A Question of Body Type

All women fall under one of three body classifications, or are a combination of types. Mesomorphs tend to be muscular, endomorphs

are more rounded and voluptuous and ectomorphs are slim or linear in shape. Mesomorphs respond to strength training by building muscle mass much faster than their ectomorphic counterparts, even though they may be following identical training regimens.

Endomorphs generally need to lose body fat in order to see a change in size or shape as a result of strength training. Ectomorphs are less likely to build muscle mass but will become stronger as a result of resistance training.

### Building Just Your Heart Muscle

One of the fundamental principles of strength training is that if you overload a muscle, you will increase its size. With aerobic training, the overload is typically your body weight. Activities such as step training or stair climbing result in changes in the size and shape of the muscles of the lower body. Increasing the height of the step or adding power movements increases the overload.

For those concerned about building muscle, it would be better to reduce the step height or lower the impact of the movements. While this may reduce the aerobic value of the workout, it also will decrease the amount of overload on

the muscles, making it less likely that you will build more muscle.

### Training by the Rules

When it comes to strength training, the old rule still applies: To get stronger, work with heavier weights and perform fewer repetitions. To promote endurance, use lighter weights and complete more repetitions.

It's encouraging to note that just like men, most women will experience a 20 to 40% increase in muscular strength after several months of resistance training.

Understanding your body type and how you might respond to exercise can help you set realistic goals and expectations. Avoid comparisons to others you see, at the gym or elsewhere, and remember that no two people are alike.

Focus on how good exercise makes you feel rather than how you would like to look. Accepting our bodies for what they are is a great way to get rid of the guilt or pressure we often feel to look a certain way.

### Additional Resources

Myths of Women's Weight Training and Female Bodybuilding: [www.bodybuilding.about.com/od/womensfitnessttopics/a/womenmyths.htm](http://www.bodybuilding.about.com/od/womensfitnessttopics/a/womenmyths.htm)

Ten Reasons Women Should Lift Weights: [www.sportsmedicine.about.com/cs/women/a/aa051601a.htm](http://www.sportsmedicine.about.com/cs/women/a/aa051601a.htm)

*If you are interested in information on other health and fitness topics, contact: American Council on Exercise, 4851 Paramount Drive, San Diego, CA 92123, 800-825-3636; or, go online at [www.acefitness.org/GetFit](http://www.acefitness.org/GetFit) and access the complete list of ACE Fit Facts!™*



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