

Fat to muscle? ^[1]

Dear Alice,

I have been told that when you exercise strenuously, fat changes to muscle, and since muscle cells weigh more than fat cells, you will gain weight. Is this true?

?The hulk-ette

Answer

Dear The hulk-ette,

You've touched on two commonly misunderstood components of exercise. Despite what all the late night infomercials tell us, fat and muscle are two distinctly different tissues and one can't be turned into the other. Muscle will always be muscle and fat will always be fat. As to the second thought you mentioned, one pound of either is exactly that ? one pound.

It is indeed a *myth* that fat cells can change into muscle. You can burn fat and build muscle, but a fat cell will never turn into a muscle cell. Body fat is a storage place where our body puts extra energy when we consume more calories per day than we burn. If someone continues to consume more calories than s/he needs, the size of their existing fat cells increases. When we "burn fat" we are actually shrinking the size of our fat cells by using the energy that has been stored there. There are also have a fixed number of muscle cells so when we are building muscle the individual muscle cells are increasing in size (bulking up).

Over time, you can gain muscle mass through a variety of activities including weight lifting and other forms of resistance training. If your main goal is to bulk up, you are likely increase your muscle mass which could increase your overall weight. Remember that your weight also depends on what you eat and if you're doing other types of exercise. For example, if you're doing lots of cardio, then you may ultimately lose fat and decrease your weight.

Instead of stepping on a scale, you may want to consider measuring your body composition. Methods to assess [body composition](#) ^[2] (lean body mass vs. fat body mass) can help give you a more accurate idea of what comprises your body. The related Q&As contain many useful tips to guide your training.

You can always talk with a registered dietitian (RD) or a trainer to help determine the weight and exercise plan that's right for you. You can also check with your local fitness center or health care provider for nutrition and exercise referrals.

Choosing to be active can help you feel better now and for years to come ? thanks for helping us bust some common exercise myths.

Alice!

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