

Muscle vs. Fat

Muscle vs Fat: What's the Difference?

Weight is weight, right? Does what makes up the weight actually make a difference? Surely a pound of muscle is the same as a pound of fat, right?

Well, it's not that simple.

What makes up the weight you carry can have an impact on your health, appearance, physical abilities, and general well-being.

Muscle and fat could not be more different in terms of both structure and role.

Let's Talk About Muscle:

Some muscles attach to your skeletal system. Others are key to the circulatory and digestive systems. Your heart is a muscle, and so is your bicep. Muscles are vital to the way your body runs!

Muscles use up calories in order to function, and they generally use up more calories than fat does (1). According to a paper published in the *Exercise and Sport Sciences Review*, "exercise improves the capacity of muscle to oxidize fat" (2). Since "reduced rates of fat oxidation [...] have been shown to predict weight gain" (2), regular exercise can give muscles a boost in their fat oxidation, making it easier for you to control your weight.

Muscle is also denser than fat, which means that a pound of it will take up less space than a pound of fat. This can impact your physical appearance.

Let's Talk About Fat:

Your body does need some fat, but it doesn't need a ton of it. Fat helps store energy, insulate organs, and can even help the messenger systems in your body function. It also stores some nutrients, like vitamins A, D, E, and K.

Fat doesn't use up as many calories as muscle does. Meanwhile, fat cells store more calories than muscle cells do (1).

In terms of appearance, a person with a higher body fat percentage will appear larger than a person with a lower percentage, even though they weigh the same.

Sources:

1. "Muscle cells vs fat cells" *Medline Plus* <http://www.nlm.nih.gov/medlineplus/ency/imagepages/19495.htm>.
2. "Exercise improves fat metabolism in muscle but does not increase 24-h fat oxidation" *Exercise and Sport Sciences Review* <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2885974/>.

