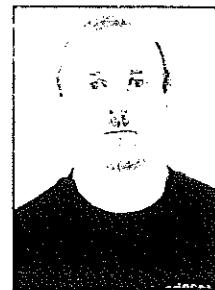


Five Facts About Fat

By Matt Brzycki



In order to compete at an optimal level, you should strive to maintain a desirable amount of body fat (or adipose tissue). Indeed, having too much body fat can adversely affect your performance on the mat.

There are several misconceptions about body fat. Understanding the facts about fat will help you to plot an effective course of action to keep it at desirable levels.

FAT FACT #1:

Fat has several important functions.

While muscle cells are very active, fat cells are very inactive. Nevertheless, body fat does have a few important functions. First, fat serves as a major source of energy during low-intensity activities such as sleeping, reading and walking. Second, it helps in the transportation and absorption of fat-soluble vitamins (namely, vitamins A, D, E and K). Third, fat cushions impact and protects vital organs. Fourth, it provides insulation in cold weather. Be that as it may, having too much body fat is not

really beneficial for athletes. In fact, there are probably only two activities in which an athlete would gain an advantage from having an excessive amount of body fat. One is long-distance swimming in cold water . . . and it would be swimming a very long distance in very cold water. The other is Sumo wrestling. So, having a high percentage of body fat is not desirable – unless, of course, you plan on swimming the English Channel (in January) or competing against a yokozuna in Japan.

FAT FACT #2:

Fat is located throughout the body in different storage sites.

There are two main categories of fat deposition: essential and storage. Essential fat is stored in your muscles, central nervous system and vital organs such as your heart, lungs, kidneys and liver. In addition, essential fat includes gender-specific fat such as that found in a woman's hips, thighs and breasts. For the most part, gender-specific fat is used during pregnancy and

Harold Nichol's Open.
Photo by John C. Johnson



breastfeeding. Storage fat consists of subcutaneous fat and visceral fat. Subcutaneous fat lies in relatively small amounts directly underneath your skin; visceral fat is more internal and is used to cushion impact and protect vital organs.

Individuals tend to deposit fat in certain areas of their bodies more than in other areas. The reason for this is because the accumulation of fat is an inherited characteristic just like the color of your eyes, the shape of your nose and the distribution of your hair. When it comes to storing fat, people are very similar to their ancestors. So if your ancestors tended to deposit fat in their abdominal areas, it is likely that you will as well. Although there are individual differences, a male tends to store fat in his mid-section and upper back; a female tends to store fat in her hips and thighs.

Also consider this: Fat is lost in the reverse order in which it is deposited. In other words, if you have a tendency to deposit fat first on your arms and then on your legs, you will lose fat first from your legs and then from your arms.

FAT FACT #3:

Fat does not turn into muscle.

It is a fairly common belief that you can

change fat into muscle. In truth, you cannot change fat into muscle – or vice versa – any more than you can change lead into gold. Adipose tissue is composed of spherical cells that are specifically designed to store fat. It is about 22% water, 6% protein and 72% fat. Conversely, muscle tissue consists of special contractile proteins that allow movement to occur. Muscle tissue is about 70% water, 22% protein and 7% fat. (The remaining 1% or so includes inorganic salts such as calcium, potassium and sodium.) Since muscle and fat are two different and distinct types of biological tissue, fat cannot turn into muscle if you begin lifting weights (or doing any other type of physical activity); similarly, muscle cannot turn into fat if you stop lifting weights. The fact is that muscles hypertrophy (or become larger) from physical activity and muscles atrophy (or become smaller) from physical inactivity.

FAT FACT #4:

Fat cannot be selectively reduced from specific areas of your body.

In exercise-physiology parlance, the belief that exercise causes a localized loss of

body fat is known as “spot reduction.” A litmus test for evaluating the notion of spot reduction is to examine whether a significantly greater change occurs in an active or exercised bodypart compared to a relatively inactive or unexercised bodypart. In one study, researchers evaluated the effects of a 27-day sit-up program on the fat-cell diameter and body composition of 13 subjects. Over this four-week period, each subject performed a total of 5,004 sit-ups (with the legs bent at a 90-degree angle and no foot support). Fat biopsies from the abdominal, subscapular and gluteal sites revealed that the sit-up program reduced the fat-cell diameter at all three sites to a similar degree. If spot reduction was possible, exercising the abdominal muscles would have preferentially decreased the fat in the abdominal area more than the gluteal or subscapular areas.

While on the subject, the abdominal area probably gets more attention than any other bodypart. Many individuals perform countless repetitions of sit-ups, crunches, side bends, torso twists, knee-ups and other abdominal exercises – sometimes more than once per day – with the belief that this will give them a highly prized set of “washboard abs.” It is important to realize that everyone has “washboard abs.” But whether or not these muscles are seen

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depends upon the thickness of the fat that covers the abdominal area. If your abdominal area has a low amount of fat, your "abs" will appear very defined or "toned"; if your abdominal area has a high amount of fat, your "abs" will not appear very defined or "toned." This does not mean that your abdominal muscles are not developed. Rather, they are camouflaged with a pesky layer of fat. Abdominal exercises certainly involve your abdominal muscles. However, the exercises have little effect on the subcutaneous fat that resides below your skin and over your abdominal muscles. Years ago, I knew one well-meaning individual - a former professional wrestler - who regularly performed 1,500 crunches during each workout, yet he looked as if he just swallowed a Volkswagen! The reason why you cannot selectively lose fat from a specific area is that when you exercise, fat (and carbohydrate) stores are tapped from throughout your body as a source of energy - not just from one specific area. So, you can do abdominal exercises until the sun runs out of fuel and explodes - about five billion years from now - but these Olympian efforts will not automatically trim your mid-section. Quite simply, spot reduction is physiologically impossible.

Your abdominals should be treated like

any other muscle group. Once an activity for your abdominals exceeds about 70 seconds in duration, it becomes an increasingly greater test of aerobic endurance instead of muscular strength. Your abdominals can be targeted effectively in a time-efficient manner by training them to the point of muscular fatigue within about 8 - 12 repetitions (or about 50 - 70 seconds).

FAT FACT #5:
Fat is not decreased significantly if weight is lost too rapidly.

Losing weight is a simple matter of mathematics. To lose weight, you must produce a caloric deficit: You must expend more calories than you consume. Actually, you can achieve a caloric deficit by decreasing your caloric consumption (eating less), increasing your caloric expenditure (exercising more) or a combination of the two. In fact, proper weight loss should be a blend of consuming less calories and expending more calories.

Understand that the rate at which you lose weight determines how much of the caloric expenditure actually came from fat. The daily caloric deficit should not be more

than about 500 - 1000 calories below the normal daily needs. If the weight loss is more than about 1% of your bodyweight per week, it is likely that some of this weight reduction will be the result of decreased lean-body mass and/or water rather than body fat. However, if the weight loss is less than about 1% of your bodyweight per week and is the result of a rigorous training program in conjunction with a reduced caloric intake, then it will probably be in the form of decreased body fat.

So, losing weight too rapidly is not very desirable... nor is it very healthy. Keep this in mind when you are trying to lose weight and fat.

FACE THE FACTS

Remember that in order to wrestle at your best, you should not carry too much body fat. You can increase the likelihood that you will achieve a desirable level of body fat by following a realistic approach that is based upon the facts about fat.



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