

BE WELL

Supercharge Brown Fat to Burn Calories

By Debbie DeAngelo
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Did you know that we have diverse types of fat cells in our bodies and that they function differently? Enter the science of fat. Adipose tissue, to be exact, and yes, it's at the center of much medical research.

There are three primary forms of body fat – brown, white, and beige. The ratio of this trio changes as we grow and age. Since babies are born without the ability to shiver, it's more difficult for them to regulate their body temperature, so they

rely on brown fat to keep warm. That's why we have the greatest stores of brown fat as infants.

Children have quite a bit, too. Brown fat burns more calories than white, so it generates more heat. Also, it stabilizes blood sugar levels. Most of these brown fat stores are located around the neck, shoulders, and upper spine. It's only been within the past few decades that scientists have realized that adults still retain some brown fat stores; however, it's substantially less.

White fat is the type that most of us are trying to lose. While it does serve many purposes, from keeping us warm to hormone production and vitamin storage, an excess is deleterious to our health. White fat cells don't stimulate calorie burn like brown fat cells do.

Beige fat is like a hybrid. This is when white fat cells are transformed into tissue that behaves in a similar fashion to brown cells.

While scientists are pursuing methods of stimulating brown fat activity in adults, as well as bumping up the amount of beige fat, here are some ways we can support this process.

Cool down. Research indicates that our reliance on indoor heating and cooling systems, as well as less overall time spent outdoors, has contributed to our lack of temperature variation. This may lead to less brown fat. As unappealing as it may seem, spending time outside in the cold weather, taking a cold shower, and keeping the thermostat in the low to mid 60s may boost brown fat activity. The benefits gradually increase over time.

Move around. Animal studies, along with a few human ones, have shown that exercise stimulates the production of beige fat. Physical activity increases the protein, irisin, which prompts white fat cells to behave like brown fat cells. It aids in controlling body weight and blood sugar levels, too. It's yet another reason to resist sedentary living.

Eat to satiety. Meaning ... don't starve or stuff yourself. Many of us have lost touch with our hunger and fullness signals. When we overeat, we don't know how much our body actually requires. The trick is to eat enough to feel satisfied but not stuffed. This sensitizes us to our appetite stimulating and suppressing hormones, ghrelin and leptin. They also play a role in maintaining brown fat.

Sync circadian rhythms. For several reasons, lack of sleep can make it more difficult to lose weight. Recent animal studies indicate that higher levels of melatonin appear to be linked to brown fat. To live in accordance with your inherent biorhythms, which naturally regulate melatonin levels, get more sunlight exposure during the day, go to bed and get up at the same times daily, and avoid blue light from electronic devices before bed.

There's much left to be discovered about brown fat and ways of holding onto more of our childhood supply. While scientists continue to study the metabolic activity and health benefits of brown fat cells and take these studies from the lab to the real world, we can remain aware of any new findings and the best ways of applying them to our lives.

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