

Brown fat burns calories in adult humans

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Brown adipose tissue (often known as brown fat) is a specialized tissue that burns calories to generate body heat in rodents and newborn humans, neither of which shiver.

Recently, adult humans have also been found to possess [brown fat](#). This fact piqued the interest of researchers seeking to combat the [obesity epidemic](#), the thought being that if they could develop ways to increase the amount of brown fat a person has that person will become slimmer. One hitch to this idea is it has never actually been shown definitively that brown fat in adult humans can burn energy.

Now, a team of researchers - led by André C. Carpentier, at Université de Sherbrooke, Sherbrooke, Quebec; and Denis Richard, at Université Laval, Quebec City, Quebec - has provided this evidence, showing that when healthy adult men are exposed to cold their brown fat burns energy to generate [body heat](#). However, it did not burn energy at warm temperatures.

As Barbara Cannon and Jan Nedergaard, at Stockholm University, Sweden, discuss in an accompanying commentary, these data have significant implications for the human obesity epidemic. In particular, they note that the data generated by Carpentier, Richard, and colleagues indicates that developing ways to increase the amount of brown fat a person has is unlikely to make that person slimmer, what is needed is a way to make sure that the brown fat is active and burns calories.

More information: Brown adipose tissue oxidative metabolism

contributes to energy expenditure during acute cold exposure in humans,
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