

Human brown adipose tissue

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Human brown adipose tissue: metabolic effects and clinical implications

Michiel Moonen, 11-05-2021

1. Improving glucose metabolism in adult humans by cold exposure occurs mainly by skeletal muscle and not by brown adipose tissue activity. (This thesis)
2. While repeated cold acclimation favours carbohydrate oxidation, acute cold exposure favours fatty acid oxidation. (This thesis)
3. Non-shivering thermogenesis does not exert a positive effect on postprandial lipid metabolism in young healthy subjects. (This thesis)
4. In contrast to mice, cold exposure does not lead to reduced post-prandial lipid levels in adult humans. (This thesis)
5. Non-shivering cold exposure is insufficient to decrease obesity and insulin resistance, and should be combined with dietary intervention as well. (Ravussin E, Galgani J.E.; The implication of brown adipose tissue for humans; Annu. Rev. Nutr., 2011)
6. Most humans would not tolerate either or both of severe and prolonged cold environments. (Loh R.K.C., Kingwell B.A. and Carey A.L.; Human brown adipose tissue as a target for obesity management; beyond cold-induced thermogenesis; Obesity Reviews, 2017)
7. Brown adipose tissue is of paramount significance both in the early days of life for all of us, and in the early days of development of our mammalian pedigree. (Cannon B. and Nedergaard J.; Brown Adipose Tissue: Function and Physiological Significance; Physiol Rev, 2004)
8. We should not refuse to eat, even though we do not fully understand the process of digestion. (Oliver Heaviside; 'Mathematics and the age of the earth' in Electromagnetic Theory Volume 2, 1899)
9. Achievement of your happiness is the only moral purpose of your life, since it is the proof and the result of your loyalty to the achievement of your values. (Ayn Rand, The Virtue of Selfishness, 1961)
10. Yes, there were times when I bit off more than I could chew. But through it all, I faced it all and I stood tall. And did it my way. (Frank Sinatra, 1969)