cardiovascular complications. There is an association between the lack of nocturnal dipping and impaired insulin metabolism among obese adolescents. Little is known about this association among obese children. The aim was to analyze the relationship between insulin-glucose metabolism and nocturnal dipping in obese children.
Methods: We reviewed a cohort of severely obese (BMI SDS = 6.4) girls (n = 58) and boys (n = 57) aged 5–12 years, referred between1997 and 2007 to the Centre due to their obesity. All referred children were unselectedly included in the study, Measurements of ambulatory 24-hour blood pressure, glucose metabolism (FSIVGTT), fasting blood sampling, echocardiography and body composition (DEXA) was performed.
Results: Forty percent of the subjects were systolic non-dippers and 17% were diastolic non-dippers. Fourteen percent of the children had an elevated fasting glucose level (range 5.6-6.1 mmol/L). Independently of gender, age, daytime blood pressure and BMI SDS there was a positive association between systolic dipping and P-glucose (β = 0.23, P < 0.05). Systolic dipping was not associated with any other measure of insulin or glucose metabolism.
Conclusion: We found a high prevalence of nocturnal non-dipping among severely obese, but otherwise healthy children. Non-dipping was not associated with the metabolic syndrome. In contrary, there was a positive association between the nocturnal dipping and fasting glucose. We speculate that the non-dipping children represent a subpopulation with a hypothalamic disturbance, leading to a disturbed regulation of blood pressure and plasma glucose levels.
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Paradoxical role of hunger in 'reward-driven' eating: implications for Eating in Absence of Hunger (EAH) phenomenon?

Marsaux C[2], **Finlayson G**[1] and Blundell J[1]
[1]Institute of Psychological Sciences, University of Leeds, Leeds, UK; [2]AgroParisTech – Paris Institute of Technology for Life, Food and Environmental Sciences, Paris-Grignon, France

Introduction: The EAH paradigm focuses on eating behaviour when hunger is suppressed and intake can be stimulated by the presence of hedonic food. We gave satiated subjects the opportunity to eat high reward snack food – with or without prior exposure – and examined the role of hunger under these conditions.
Methods: Twenty-five subjects consumed a two-course test-meal to self-reported satiety. In the exposure condition, a bowl of high reward snack food was present for the duration of the session (35 minutes). After eating to satiety, subjects in both conditions were given access to the snack food while they completed a cognitive task. Snack intake was measured, and hunger was assessed periodically using VAS.
Results: Intake of high reward snack food was observed (Exposure: 223.0 ± 186.1Kcal; Control: 189.3 ± 150.5 Kcal) and greater after exposure compared to control (P < 0.05), despite a large reduction in hunger in both conditions (Exposure: −67.6 ± 19.6 cm, P < 0.001; Control: −66.3 ± 20.8cm, P < 0.001). However, even at these post-meal levels, hunger was significantly correlated with snack intake (Exposure: r = 0.444, P < 0.05; Control: r = 0.496, P < 0.05). The strongest predictor of intake was mean hunger (Exposure: r = 0.634, P < 0.01; Control: r = 0.677, P < 0.001). When subjects were grouped by strength of (very low) hunger, palatable food intake was greater with high hunger only after exposure (t = 2.9, P < 0.05).
Conclusion: Low level of hunger is functional in modulating the eating of palatable food even when people are in a state of satiety after eating. Satiety therefore implies a low level of hunger and not an absence. This low hunger can amplify eating to salient hedonic food stimuli.
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Electron microscopy uncovers nerve fibers close to individual human white adipocytes from subcutaneous depots

Guarna M
Department of Biomedical Sciences, University of Siena, Italy

Introduction: The White Adipose Tissue (WAT) nerve supply and its distribution have been the subject of morphological investigations by histochemical methods,in several animal species .However,study of nerve distribution in human white depots at transmission electron microscopy (TEM)) level wich allows a greater resolution than the different optical microscopy techniques previously employed,have still not been carried out .This is an important issue, being the possible mediation of lipolysis via increases in the sympathetic drive to WAT hinged on strong evidence of the SNS innervation of this tissue.
Methods: For the morphological study,archived skin biopsies,embedded in resin,already examined and tested negative for the presence of patological features of inborn neurometabolic disorders,were used.Semithin sections showing the presence of localized fat accumulation in subcutaneous layer were selected,and ultrathin sections were cut,stained by routinely TEM procedures and observed under a CM 10 TEM (Philips).
Results: Small nerve fascicles made of unmyelinated nerve fibers were scattered in the connettival space among groups of adypocytes and small arterioles. Single unmyelinated nerve fibers made of few axons, only partially covered by Schwann cells, and containing vesicles, mostly of dense core type, were observed quite frequently near to single adypocyte membrane and unrelated to blood vessels.
Conclusion: Our morhological findings, together with previously reported in vivo increase of adipose tissue lipolysis upon nerve stimulation in human inguinal district, suggest that nerve fibres, probably of sympathetic origin, travelling in cutaneous nerve fascicles coud exert regulatory influence on subcutaneous fat tissue in humans.
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Hepatic lipid accumulation was prevented by the fish oil feeding

Hirako S, Kim H-J, Shimizu S, Chiba H and Matsumoto A
Faculty of Pharmaceutical Sciences, Josai University, Saitama, Japan

Introduction: We previously demonstrated that 20% energy fish oil feeding prevented hepatic lipids accumulation in mice loaded 2% cholesterol (Hirako et al. J Nutr Biochem. 2009). In this study, we examined interactive effects of 2 or 5% energy fish oil and 2% cholesterol feeding.
Methods: Female C57BL/6J mice were given free access to the each diet for 8 week; SO diet consisted of 20% safflower oil, 2FO diet consisted of 2% fish oil plus 18% safflower oil, 5FO diet consisted of 5% fish oil plus 15% safflower oil, and SO/CH, 2FO/CH, 5FO/CH are consisted of SO, 2FO, 5FO with 2%cholesterol. Blood

