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 Weight and Subsequent Puberty""; ""Common Genetic Determinants of  
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 Detected Early in Life""; ""Postnatal Growth""; ""Pathway to Insulin  
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 Adipose Tissues""; ""Abstract""; ""From the Brain to Adipose Tissues"";  
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## Sommario/riassunto

Nowadays, adipose tissue is not only regarded as an organ of storage related to fuel metabolism but also as an endocrine organ involved in the regulation of insulin sensitivity, lipids and energy metabolism. These proceedings cover the nervous regulation of both white and brown adipose tissue mass. Different physiological parameters such as metabolism (lipolysis and thermogenesis) and secretory activity (leptin and other adipokines) are reviewed. The plasticity of adipose tissue (proliferation, differentiation and apoptosis) showing the presence of a neural feedback loop between adipose tissue and the brain, which plays a major role in the regulation of energy homeostasis, is discussed. Merging basic knowledge and various clinical conditions, this thorough review is of great interest to both scientists and physicians, in particular pediatricians, interested in obesity, endocrinology and nutrition.

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