

Taste, hormones and diseases

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Mechanisms for food intake control mainly involve the interaction between intestine, brain and adipose tissue. The first part of the lecture will be devoted to the principles of this hormonal regulation. The second part will deal with the issue of taste. Taste affects food intake. After ingestion, taste receptors send signals to the brain that segregate, evaluate, and differentiate stimuli, leading to an experience known as "taste." The lecture will discuss not only the anatomy and physiology of human taste buds, hormonal modulation of taste functions and the importance of genetic chemosensory variation, but in particular the influence of taste functions on the choice of macronutrients and eating behavior. This is very important for practice because individual genotypic variations result in specific phenotypes of food preferences and nutrient intake. The lecture focuses on the presentation of how taste and its affection are related to metabolic diseases – obesity, bulimia, mental anorexia to tumor cachexia. At the same time, you will learn how taste and hormones change during the treatment of metabolic diseases through diet, medication or bariatric surgery.