Abstract

Over the past three decades, it has been confirmed that the alarming increase in number of obese patients is related to the sleep duration and its quality. Neurohumoral response to short sleep duration and poor sleep quality leads to decreased levels of melatonin, leptin and orexin, asto increased levels of cortisol, ghrelin and neuropeptide Y. Such an inaccurate regulation contributes both to excessive intake of energy-dense diet and to the reduction of energy expenditure during physical activity. The bachelor thesis summarizes recent information about the relationship of sleep and obesity, focusing on hormones and peptides involved in the regulation of energy balance processes, including the possiblity to use their mechanisms for weight control.