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Lecture outline: The fashionable theories of science change over time and what was stress for a few decades now metabolic changes is considered to be the cause of all diseases. However, we must not forget that stress adaptation includes metabolic alternations. Even the name of glucocorticoids, the main endhormones of the stress axis, refers to sugar. However, we have to admit that not glucocorticoids but activation of the sympathetic-adrenomedullary system is responsible for hyperglycaemia during acute stress. However, in the long run glucocorticoids are essential for many aspects of metabolism either directly or through influencing the expression of catecholamine receptors. Nevertheless, the negative feedback effect of glucocorticoids can be mimicked by sucrose drinking. Similarly, the enhanced negative feedback provided by peripheral energy stores might be beneficial to prevent long term consequences of a trauma e.g. inhibit the appearance of symptoms of posttraumatic stress disorder. Nevertheless, the interaction of stress and metabolism is bidirectional. In this sense diabetes mellitus is a chronic stress load and constantly provokes our stress system leading to its exhaustion and development of comorbid disorders e.g. anxiety and depression. Take into consideration this complex interaction between stress adaptation and metabolism we should take into consideration both at the same time.