

# Abstract

Caloric restriction has long been known in the scientific world as a life-prolonging condition, and there is growing evidence that the effect of activation of non-selective autophagy is responsible for these effects. In this thesis, the molecular mechanisms of autophagy in the state of caloric restriction will be described, as well as its beneficial effects on the aging of the organism and various health problems associated with aging and the modern way of life will be summarized. Some risks that could result from unprofessional intervention in one's own body will also be mentioned. It is hypothesized that practicing caloric restriction under the supervision of an expert brings prevention of diseases of civilization diseases and diseases associated with aging and prolongs quality of life, which would, among other things, help reduce the cost of health and social care.

Keywords: Autophagy, caloric restriction, molecular mechanisms