Health is a value that people in the western societies start to appreciate when they lose it. Health is an outcome of balanced functioning of all our tissues, organs and systems. Thanks to current neurobiology we have an insight into integrative organization and action of human organism. According to prof. Wilfrid Jänig from Christian-Albrechts University in Kiel (Germany), studies on the integrative action of the autonomic nervous system and neurobiology of homeostasis, bring to light modern neurobiological concepts. ANS is the communication interface between the nervous system and the immune system which constantly monitors and reacts to environmental and/or emotional situation. Also the microbiota-gut-brain axis involves both afferent and efferent autonomic pathways such as the vagus nerve and the hypothalamic-pituitary-adrenal axis in order to regulate various aspects of homeostasis as inflammation for instance. Microbiota-gut-brain axis disorder has been shown to be involved in the pathogenesis of various diseases. The aim of the treatment should be to break the neurogenic inflammatory viscous cycle and facilitate tissue recovery. This can be achieved for example by enhancing the parasympathetic influence on the body. There are some studies indicating the influence of osteopathic manipulative treatment on autonomic function. Osteopathic philosophy gains now a scientific support which can explain why OMT has an effect on homeostasis.

**Keywords:** Osteopathic manipulative treatment; Autonomic nervous system; Homeostasis; Microbiota-gut-brain axis
Based on these findings it should be concluded that the aim of the treatment should be to break the neurogenic inflammatory viscous cycle and facilitate tissue recovery. This can be achieved for example by enhancing the parasympathetic influence on the body. There are some studies indicating the influence of osteopathic manipulative treatment on autonomic function [7-9] causing a parasympathetic effect and leading into developing of trophohrophic state that promotes healing. Important is that a sham light-touch procedure didn’t cause a similar effect. It has been also observed that specific osteopathic techniques enhance functioning of the lymphatic and immune systems [10,11] by increasing the number of circulating leukocytes and IL-8 [12]. Osteopathic treatment has been also suggested to be able to reduce the level of proinflammatory agents [13-15]. These observations suggest that osteopathic treatment may influence both acute and chronic sensitization process through interaction with peripheral tissues. The effect of this interaction is a chain of neurological reactions changing interoceptive process and breaking the low grade inflammatory viscous cycle [16]. It is also important to keep in mind that pure exteroceptive touch conducted by low threshold mechanoreceptors is able to modify the efferent autonomic activity - especially local [1]. The current neuroscience offers a better understanding of the integrity of human body and gives more and more evidence that manual treatment has a profound effect on its physiological function. But the primary goal of osteopathic diagnosis and treatment was always to see the body as a whole, as a unity. The two-way interaction of body, mind and spirit postulated in the osteopathic philosophy gains now a scientific support which can explain why interaction of body, mind and spirit postulated in the osteopathic was always to see the body as a whole, as a unity. The two-way

References


