

# ABSTRACT

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**Title:** Available alternatives to pharmacological and non-pharmacological non-invasive treatment of low-back pain

**Form:** Master Thesis

**Name of University:** Charles University in Prague, Faculty of Pharmacy in Hradec Králové

**Degree:** Pharmacy

**Background:** The main objective of the thesis was to compile a list of available pharmacological and non-pharmacological alternative non-invasive treatment of low-back pain.

**Main findings:** Low-back pain is a major health problem in all developed countries and it is considered to be the most painful condition. The diagnostic and therapeutic management of acute as well as chronic low-back pain seems to vary substantially among general practitioners, medical specialist and physical therapists. It is necessary to differ from the management of acute and chronic conditions. There is consensus that paracetamol is preferred as the first choice medication for low-back pain, nonsteroidal anti-inflammatory drugs are the second choice; there is some variation in recommendation of muscle relaxants, weak opioids and adjuvant analgesics. Although physical therapy is often indicated, there is no evidence for the effectiveness. Despite of scientific evidence, there is insufficient emphasis on the exercise therapy focused on the strengthening of the deep stabilizing system of the spine in patients with chronic low-back pain.

**Conclusions:** Although many trials regarding the effectiveness of management of the low-back pain have been published, there is still place for more future evidence-based studies.

**Key words:** low-back pain, deep stabilizing system, exercise therapy, pharmacotherapy.