

## **Abstract**

**Author:** Vít Horáček

**Thesis supervisor:** Mgr. Michaela Stupková

**Title:** Case Study of Physiotherapeutic Treatment of a Patient after total knee replacement

**Objectives:** The aim of this bachelor's thesis is to summarize the theoretical knowledge of the issue of total knee replacement and to process the case report of a patient who underwent this surgery.

**Methods:** The bachelor's thesis consists of two parts – general and special. The theoretical part summarizes the knowledge about kinesiology and biomechanics of the knee joint, gonarthrosis, knee replacements, physiotherapeutic care and physiotherapeutic methods. The special part includes a case report of a physiotherapeutic care of a patient after total knee replacement. The study was carried out as part of a clinical work placement in January and February 2024 at the Poliklinika AGEL Praha Italská. It consists of a kinesiology initial examination, a description of all therapeutic sessions, an exit kinesiology examination and an evaluation of the therapy effect. Non-invasive physiotherapeutic methods and procedures were used for the examination and the therapy within the scope of knowledge of the bachelor's degree in physiotherapy at the Faculty of Physical Education and Sport at Charles University.

**Results:** The rehabilitation intervention resulted in an improvement of the patient's health, which is confirmed by a comparison of the initial and exit kinesiology examination and also in a separate chapter Evaluation of the effect of therapy (Zhodnocení efektu terapie). The therapeutic procedures used in the course of the therapeutic sessions were effective and the patient was discharged to home care after the rehabilitation stay.

**Conclusion:** The predetermined objectives have been achieved. In the theoretical part, according to the available literature, the information about total knee arthroplasty was presented and, according to the latest scientific studies, the effects of physiotherapy methods used in rehabilitation of patients after knee arthroplasty were summarized. In the special part, a case report of a patient with this diagnosis was developed.

**Keywords:** knee joint, total knee replacement, physiotherapy, gonarthrosis