## **Abstract**

**Title:** Case study of physiotherapeutic treatment of patient after total knee replacement.

**Aim of thesis:** the aim of this thesis begins with an understanding of the human knee anatomically, followed by how its anatomy becomes functional by exploring the biomechanics and kinesiology aspects of the knee. This paper will further discuss on what leads to total knee replacement. Practically the aim of this thesis is to bring the knowledge acquired theoretically into practice as it explores the treatment process after total knee replacement surgery.

Clinical findings: patient is a 57 year old man who was two days after total knee replacement surgery of the left knee. The need for replacement was due to bilateral gonarthrosis. He was able to walk with crutches with partial loading on the left leg. Patient present with very low mobility in the left knee and pain (normal two day after surgery).

**Methods:** all methods applied through the therapy where based on literature or lectures from Charles University (Prague) Faculty of Physical Education and Sport. The methods mainly consisted of: soft tissue techniques, Post Isometric Relaxation, stretching and active strengthening exercises. The active exercise had variety and were tailored to the patient's abilities. The patient additionally received other physiotherapeutic methods from other professionals in the hospital such as cryotherapy and hydrotherapy.

**Result:** after the 10 sessions of physical therapy with the patient, he was very functionally independent. He increased range of motion in the left knee and was free from pain.

**Conclusion:** the therapies performed on the patient showed to be very effective.

**Keywords:** total knee replacement, knee joint, weakness, limitation.