

## QUALITY OF LIFE IN KNEE OSTEOARTHRITIS

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### Introduction

Knee osteoarthritis is the most common arthritic location and as the population ages, its prevalence rises dramatically and therefore the impact of its symptomatic form affects 240 in 100,000 individuals per annum.

### Keywords

knee osteoarthritis, quality of life.

### Purpose

The goal of this study is to determine the impact of knee osteoarthritis on health-related quality of life.

### Material and methods

Through the databases, Medscape, PubMed, UpToDate, Embase, and others, 50 scientific publications were selected.

### Results

Knee osteoarthritis has a major detrimental influence on overall health and quality of life. It limits the movement of patients in 80% of cases and 25% find themselves unable to perform day-to-day life activities. It is associated with pain, difficulty in walking, climbing stairs, doing household chores, or when sitting upright and this leads in the midst of a decrease in quality of life and a crucial psychological impact. Nonsurgical treatments do not reliably alter the health-related quality of life in patients. Patients undergoing surgical therapies are generally satisfactory to excellent. Early results from clinical trials suggest less invasive joint unloading implants could help patients bridge the therapeutic gap between non-surgical and surgical treatments.



Figure 2. Stemcellsdoc's Weblog. (2011). Kellgren-Lawrence Classification: Knee Osteoarthritis Classification and Treatment Options.

Kellgren-Lawrence grading based on knee osteoarthritis X-ray image.

Grade 1	Grade 2	Grade 3	Grade 4
Doubtful narrowing of the joint space with possible osteophyte formation	Possible narrowing of the joint space and definite osteophyte formation	Definite narrowing of joint space, moderate osteophyte formation, some sclerosis, and possible deformity of bony ends	Large osteophyte formation, marked narrowing of the joint space with severe sclerosis, and definite deformity of bone ends

Figure 1. Niinimäki, E., Paloneva, J., Pölönen, I., Heinonen, A., Äyrämö, S. (2022). Validation of Knee KL-classifying Deep Neural Network with Finnish Patient Data. In: Tuovinen, T., Periaux, J., Neittaanmäki, P. (eds) Computational Sciences and Artificial Intelligence in Industry. Intelligent Systems, Control and Automation: Science and Engineering, vol 76. Springer, Cham.

### Conclusions

Knee osteoarthritis has a significant detrimental influence on a patient's daily activities as well as their expectations for treatment outcomes. To achieve optimised socio-economic quality management in full view of the highest possible quality of life for the patient, continuous improvement of therapy and result quality must remain suited to the patient and must involve the cost carrier in each individual case.