

# The relation between quadriceps strength, range of motion, parameters of gait and self-assessment functional outcome (measured with the WOMAC) at patients with end-stage osteoarthritis and after TKA

Published: 17-02-2011

Last updated: 15-05-2024

To investigate the relation between quadriceps strength, range of motion, parameters of gait and functional outcome (measured with the WOMAC) in patients with severe osteoarthritis of the knee 3 months and 1 year after TKA.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Bone and joint therapeutic procedures
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON36251

### Source

ToetsingOnline

### Brief title

Self-assessment functional outcome before and after TKA

### Condition

- Bone and joint therapeutic procedures

### Synonym

degenerative joint disease, osteoarthritis

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Medisch Universitair Ziekenhuis Maastricht

**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** functional outcome, osteoarthritis, total knee arthroplasty

## Outcome measures

### Primary outcome

WOMAC, KSS, ROM, quadriceps strength, parameters of gait, PSK

### Secondary outcome

Zie primaire variabelen

## Study description

### Background summary

Osteoarthritis of the knee causes pain, quadriceps weakness, decreased range of motion and irregularities of gait. TKA reduces pain and improves range of motion in patients with osteoarthritis of the knee. However there is still quadriceps weakness and irregularities in gait in these patients. Several studies investigated the relationship between quadriceps strength and functional performance. Also studies are performed with range of motion or parameters of gait and self-assessment functional outcome. But none studies investigated the relationship between a combination of quadriceps strength, range of motion and parameters of gait and self-assessment functional outcome.

### Study objective

To investigate the relation between quadriceps strength, range of motion, parameters of gait and functional outcome (measured with the WOMAC) in patients with severe osteoarthritis of the knee 3 months and 1 year after TKA.

### Study design

a single-centre open prospective study with a follow-up of 3 months and 1 year

after surgery.

### **Study burden and risks**

The physical tests that take place during the evaluations are part of regular care during physical therapy sessions. The risks faced by the patients are no greater than the risks they face during routine physical therapy sessions. There is no use of invasive interventions. The additional burden placed on the patients, will be three times 20 minutes in which the evaluations will take place.

## **Contacts**

### **Public**

Medisch Universitair Ziekenhuis Maastricht

P. Debyelaan 25  
6229 HX Maastricht  
NL

### **Scientific**

Medisch Universitair Ziekenhuis Maastricht

P. Debyelaan 25  
6229 HX Maastricht  
NL

## **Trial sites**

### **Listed location countries**

Netherlands

## **Eligibility criteria**

### **Age**

Adults (18-64 years)

Elderly (65 years and older)

## Inclusion criteria

- Patients with the diagnosis of osteoarthritis of the knee for whom primary TKA is indicated
- who will be operated in the \*Artrose Kliniek Maastricht\* of the MUMC+
- between 18 and 80 years of age at the time of surgery
- common with the Dutch language
- patients who understand the conditions of the study and are willing to participate for the length of the described follow-up
- patients who are capable of, and have given, informed consent for participation in the study

## Exclusion criteria

- patients with an immobile hip or ankle arthrodesis
- patients with a neurological deficit
- patients who received a UKA instead of a TKA

## Study design

### Design

**Study type:** Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Other

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-03-2011

Enrollment: 150

Type: Actual

## Ethics review

Approved WMO

Date: 17-02-2011

Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)
Approved WMO	
Date:	08-08-2012
Application type:	Amendment
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

ID: 25063  
Source: NTR  
Title:

### In other registers

Register	ID
CCMO	NL33015.068.10
OMON	NL-OMON25063