

# Long-term outcomes and development of chondropathy after tibial tubercle distomedialisation for patellar maltracking and patella alta without instability: 10 year follow-up of a prospective cohort

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<b>Ethical review</b>	Approved WMO
<b>Status</b>	Completed
<b>Health condition type</b>	Joint disorders
<b>Study type</b>	Observational invasive

## Summary

### ID

NL-OMON53862

### Source

ToetsingOnline

### Brief title

TTT Follow-up study

### Condition

- Joint disorders
- Bone and joint therapeutic procedures

### Synonym

anterior knee pain, patellar maltracking

## Research involving

Human

## Sponsors and support

**Primary sponsor:** Noordwest Ziekenhuisgroep

**Source(s) of monetary or material Support:** onderzoekssubsidie vanuit de raad van bestuur van Noordwest Ziekenhuisgroep

## Intervention

**Keyword:** chondropathy, long-term follow-up, patellar maltracking, tibial tubercle transposition

## Outcome measures

### Primary outcome

Degree of retropatellar chondropathy as classified by the Modified Outerbridge

Classification using the MRI-scan of the involved knee

### Secondary outcome

Patella height which is determined using standard routine X-ray examination,

and scores on three PROMs: the Knee Injury and Osteoarthritis Outcome Score

(KOOS), the Kujala, and the visual analogue scale (VAS) for pain.

## Study description

### Background summary

Anterior knee pain is a common complaint, especially in younger and active adults. An obvious source for anterior knee pain is patellar maltracking, which is often associated with patella alta (a high-riding patella). Due to maltracking, the cartilage of the patella can face a greater amount of pressure, which can cause cartilage damage. When conservative treatment fails, a surgical intervention can be considered. One of the surgical options is performing a tibial tubercle transfer (TTT), where the patella is being distalized and medialized. As a result, the improvement in patellar tracking will reduce the pressure on the retropatellar cartilage. The TTT has been proven effective in patients with patellar instability but less is known about

patients without instability. Specifically, whether these patients face a higher risk of developing retropatellar cartilage damage (\*retropatellar chondropathy\*) due to this intervention is currently unknown.

## **Study objective**

The primary aim of this study is to determine the incidence and the degree of retropatellar chondropathy 10 years after a TTT in patients with anterior knee pain without patellar instability. The secondary aim is to evaluate the long-term patient reported outcomes (PROMs) 10 years after a TTT in patients with anterior knee pain without patellar instability.

## **Study design**

This is a 10-year follow-up of a prospective cohort.

## **Study burden and risks**

Patients included in the study will be asked to fill out few PROMs. This will cost no more than 15 minutes in total. In addition, patients will have one MRI scan and standard routine radiological assessment of the involved knee performed. The study will not provide personal benefits to the participating patients, but future patients may benefit from the results of the study performed. Ultimately, this study will gain more insight in the long-term effects after a TTT.

## **Contacts**

### **Public**

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

Age between 18 and 80 years

Participated in an earlier cohort study

Underwent a tibial tubercle transposition between 2012 and 2015

Preoperative MRI available

### Exclusion criteria

No preoperative MRI is available

Patellar-related surgery after the initial surgery

Female patients that are (expecting to be) pregnant

## Study design

### Design

**Study type:** Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

### Recruitment

NL

Recruitment status:	Completed
Start date (anticipated):	18-11-2023
Enrollment:	32
Type:	Actual

## Ethics review

Approved WMO	
Date:	08-06-2023
Application type:	First submission
Review commission:	METC Amsterdam UMC

## Study registrations

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

No registrations found.

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

No registrations found.

### In other registers

Register	ID
ClinicalTrials.gov	NCT05629754
CCMO	NL82613.029.22