

# The efficacy of surgical treatment of Jones and stress fractures of the fifth metatarsal in athletes

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To assess functional recovery after treatment with intramedullary screw fixation in athletes with a Jones or stressfracture of the fifth metatarsal.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Fractures
<b>Study type</b>	Observational invasive

## Summary

### ID

NL-OMON36441

### Source

ToetsingOnline

### Brief title

Efficacy of treatment of MT5 fracture in athletes

### Condition

- Fractures

### Synonym

fifth metatarsal fracture; broken 5th metatarsal bone

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Erasmus MC, Universitair Medisch Centrum Rotterdam

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

## Intervention

**Keyword:** athletes, jones fractures, stress fractures, surgical treatment

## Outcome measures

### Primary outcome

The AOFAS midfoot score will be used as our primary study parameter.

### Secondary outcome

Tegner score, VAS FA score, patient satisfaction measured with a Likert scale, if there are complains of the screw and whether the screw has been removed, whether there are complains of the non-injured foot, if refracturing has occurred, whether shoe adjustments where necessary. Furthermore, we will assess the level of pain, swelling, deformity, range of motion (ROM) of the foot/ankle, varus/valgus hindfoot alignment and eversion strength by physical examination. Gait and plantar pression distribution analysis will be done with a footscan and we will assess the degree of fracture healing with an X-ray.

## Study description

### Background summary

Proximal fifth metatarsal fractures, which can be divided into Jones and stress fractures, are frequently seen in athletes. These fractures are most frequently related to chronic stress and are commonly seen in soccer and basketball players. Jones and stress fractures can be treated conservatively or operatively, but the time to union is longer in conservative treatment and the non-union chance is higher compared to surgical treatment. That is why operative treatment is recommended for the athlete. Several operation techniques have been described, but the optimal surgical treatment has not been determined. Intramedullary screw fixation has become a preferred method for treatment of Jones and stress fractures of the fifth metatarsal in athletes.

### Study objective

To assess functional recovery after treatment with intramedullary screw fixation in athletes with a Jones or stressfracture of the fifth metatarsal.

## **Study design**

Cross sectional study.

## **Study burden and risks**

There is no direct benefit for the patient from participating in the study. The burden is primarily time (a sole visit to our outpatient clinic and some questionnaires).

## **Contacts**

### **Public**

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### **Scientific**

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## **Trial sites**

### **Listed location countries**

Netherlands

## **Eligibility criteria**

### **Age**

Adults (18-64 years)

Elderly (65 years and older)

## Inclusion criteria

Athletes who have been treated for a Jones or stress fracture in the period between 2006-2010, with an age of 18 years or older, and have been treated in the Erasmus MC by screw fixation.

## Exclusion criteria

Insufficient command of the Dutch language, spoken and/or written.

## Study design

### Design

**Study type:** Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 15-03-2011

Enrollment: 15

Type: Actual

## Ethics review

Approved WMO

Date: 09-03-2011

Application type: First submission

Review commission: METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

## 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
CCMO	NL34674.078.10