# Vitamin D deficiency in patients with a fracture in the upper or lower extremity: a monocenter cross-sectional study

Published: 24-05-2012 Last updated: 26-04-2024

In the present study the prevalence of and risk factors for vitamin D deficiency will be determined in a patient population with a fracture in the upper or lower extremity.

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typeOther condition

**Study type** Observational invasive

## **Summary**

## ID

NL-OMON37454

#### Source

ToetsingOnline

#### **Brief title**

Vitamin D deficiency in fracture patients

## **Condition**

- Other condition
- Fractures

## **Synonym**

shortage of vitamin D, Vitamin D deficiency

#### **Health condition**

Endocrien, vitamine D

## Research involving

Human

## **Sponsors and support**

**Primary sponsor:** Leids Universitair Medisch Centrum

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

## Intervention

**Keyword:** Fracture healing, Vitamin D deficiency

## **Outcome measures**

## **Primary outcome**

Vitamin D deficiency, defined as calcidiol serum concentration < 50nmol/L,

according to international standards.

## **Secondary outcome**

Exposure to ultraviolet radiation: measured in number of hours of exposure to

UV radiation per week.

Blood serum: Calcium, Albumin, phosphate and renal function (MDRD)

# **Study description**

## **Background summary**

A large part of the western population has a vitamin D deficiency, but is unaware of this condition. Vitamin D deficiency is not only common among the adult population, also half of the young people are vitamin D deficient. Vitamin D plays an important role in bone mineralization and during the different stages of fracture healing. There is, however, a lack of data on prevalence of and risk factors for vitamin D deficiency in the relatively young population of patients with a fracture caused by trauma. For this reason, the vitamin D serum concentration of fracture patients in the LUMC will be determined.

## Study objective

In the present study the prevalence of and risk factors for vitamin D deficiency will be determined in a patient population with a fracture in the

upper or lower extremity.

## Study design

A monocenter cross-sectional study

## Study burden and risks

A total of 35cc blood will be taken from all patients, involving only minor health risks. Also each patient will fill out a questionnaire (15min).

## **Contacts**

## **Public**

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## **Trial sites**

## **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

## Age

Adolescents (12-15 years) Adolescents (16-17 years) Adults (18-64 years) Children (2-11 years) Elderly (65 years and older)

## Inclusion criteria

Fracture of the upper or lower extremity, including the shoulder and hip.

## **Exclusion criteria**

None

# Study design

## **Design**

Study type: Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled
Primary purpose: Basic science

## Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-09-2012

Enrollment: 1250
Type: Actual

# **Ethics review**

Approved WMO

Date: 24-05-2012

Application type: First submission

Review commission: METC Leids Universitair Medisch Centrum (Leiden)

Approved WMO

Date: 26-07-2012
Application type: Amendment

Review commission: METC Leids Universitair Medisch Centrum (Leiden)

Approved WMO

Date: 23-08-2012 Application type: Amendment

Review commission: METC Leids Universitair Medisch Centrum (Leiden)

# **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 NL38909.058.12