

# The effect of Virtual Reality on Anxiety and Pain in patients undergoing Orthopedic surgery

## A prospective Randomized controlled Trial

Published: 31-08-2020

Last updated: 08-04-2024

The aim of this study is to determine whether VR used in the postoperative period after elective orthopedic surgery will decrease pain scores.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Joint disorders
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON49532

### Source

ToetsingOnline

### Brief title

ViRA-PORT

### Condition

- Joint disorders

### Synonym

artificial hip, total hip arthroplasty. artificial knee, total knee arthroplasty

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Zuyderland Medisch Centrum

**Source(s) of monetary or material Support:** Er zijn geen financieringen voor deze studie. Het is een investigator initiated studie; waarbij het ziekenhuis optreedt als sponsor

## Intervention

**Keyword:** anxiety, pain, Virtual Reality

## Outcome measures

### Primary outcome

The primary endpoint of this study is to evaluate the effect of VR on pain and anxiety sensation pre- , peri- and postoperative compared to standard care without VR in patient operated for TKA or THA.

### Secondary outcome

The secondary endpoints of this study are to evaluate the effect of VR on analgesic use (daily use of paracetamol, NSAIDs, opioids) and length of hospital stay

## Study description

### Background summary

Lack of postoperative acute pain management is associated with increased morbidity, longer recovery time, more opioid use and subsequently increased health care costs. There is increasing evidence virtual reality (VR) is effective in the reduction of acute pain.

### Study objective

The aim of this study is to determine whether VR used in the postoperative period after elective orthopedic surgery will decrease pain scores.

### Study design

A prospective randomized -controlled trial.

## **Intervention**

n.a.

## **Study burden and risks**

Directly following arthroplasty, the joint will be painful, but this effect normally disappears in the first weeks after TKA. The study population experience a negligible medical risk when participating to this study. They can experience side-effects of VR like for example dizziness or nausea

## **Contacts**

### **Public**

Zuyderland Medisch Centrum

dr h vd Hoffplein 1  
Sittard-Geleen 6162 BG  
NL

### **Scientific**

Zuyderland Medisch Centrum

dr h vd Hoffplein 1  
Sittard-Geleen 6162 BG  
NL

## **Trial sites**

### **Listed location countries**

Netherlands

## **Eligibility criteria**

### **Age**

Adults (18-64 years)

Elderly (65 years and older)

## Inclusion criteria

- \*Written and orally given informed consent
- \*18 years and older
- \*Native Dutch speaker
- \*Indication for elective total hip or total knee replacement surgery under spinal anesthesia

## Exclusion criteria

- \*Chronical use of pain medication (opioids)
- \*Known car sickness
- \*Epileptic insults in previous history
- \*Claustrophobic
- \*Blindness

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)

**Primary purpose:** Prevention

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	19-10-2021
Enrollment:	60
Type:	Actual

## Ethics review

Approved WMO

Date:	31-08-2020
Application type:	First submission
Review commission:	METC Z: Zuyderland-Zuyd (Heerlen)

## 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	NL72705.096.20

## Study results

Date completed:	28-07-2022
Actual enrolment:	60