Preoperative strength training for patients awaiting total knee arthroplasty.

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Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON27568

Bron
NTR

Verkorte titel
PITSTOP

Aandoening

Total knee arthroplasty
Osteoarthritis
Rehabilitation
Totale knievervanging
Artrose
Revalidatie

Ondersteuning

Primaire sponsor: VU university, Faculty of human movement sciences
Overige ondersteuning: -

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

1. Isometric knee extension force;
2. Voluntary activation of the quadriceps.

Toelichting onderzoek

Achtergrond van het onderzoek

95% of the patients undergoing total knee arthroplasty are diagnosed with osteoarthritis. Osteoarthritis is a joint disease which is characterized by pain, loss of force and problems during activities of daily life. This can result in reduced social participation and quality of life. Current advice on preoperative training is very diverse. Some hospitals advise patient to consult a physiotherapy pre surgery, while others do not. Between physiotherapists there are huge differences in treatment. While some only train walking with aids, others perform intensive strength training. Because there is evidence that intensive strength training is beneficial post surgery, our hypothesis is that preoperative training also leads to increases in muscle strength, voluntary activation, and physical functioning. Further we expect to find indications that positive training status is related to postoperative recovery.

Doel van het onderzoek

95% of the patients undergoing total knee arthroplasty are diagnosed with osteoarthritis. Osteoarthritis is a joint disease which is characterized by pain, loss of force and problems during activities of daily life. This can result in reduced social participation and quality of life. Current advice on preoperative training is very diverse. Some hospitals advise patient to consult a physiotherapist before surgery, while others do not. Between physiotherapists there are large differences in treatment. While some only train walking with aids, others perform intensive strength training. Because there is evidence that intensive strength training is beneficial post surgery, our hypothesis is that preoperative training also leads to increases in muscle strength, voluntary activation, and physical functioning. Further we expect to find indications that positive preoperative effects promote postoperative recovery. This study can help to shorten recovery and increase the quality of life for patients undergoing total knee arthroplasty.

Onderzoeksopzet

All variables will be measured at:

1. 6 weeks before surgery;

2. 0 weeks before surgery;

3. 5 weeks after surgery;

4. 12 weeks after surgery.

Onderzoeksproduct en/of interventie

1. Control group: Usual care according to guidelines for training subjects with osteoarthritis;

2. Intervention group: Usual care plus additional intensive strength training (6 weeks 2 days a week). The strength training consist of 4 legexercises. The number of repeats decreases from 15 to 8, but weight increases.

After surgery, both groups will receive the same exercise program.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Minimum age of 55 yrs;

2. On the waiting list for unilateral TKA.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Contraindications for training the lower limbs;

2. ASA>2 (American Society of Anesthesiologists);

3. Severe cognitive and/or communicative problems, preventing ability to follow verbal instructions;

4. Other problems that would limit the ability to perform the requested tasks;

5. Contra-indications for electrical stimulation (unstable epilepsy, cancer, skin abnormalities, pacemaker).

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Enkelblind
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-07-2010
Aantal proefpersonen:	80

Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	01-04-2010
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL2154
NTR-old	NTR2278
Ander register	CWO MOVE / ABR Nummer : 10.01 / 30715 ;
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A