

Effect of an exercise programme on the prevalence and the risk factors of anterior knee pain in volleyball players

Submission date 10/03/2008	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 15/05/2008	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 05/11/2008	Condition category Musculoskeletal Diseases	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

Study information

Scientific Title

Effect of a preventive exercise programme on the prevalence and intrinsic risk factors of anterior knee pain in volleyball players

Study objectives

Has a preventive exercise programme, designed as a result of systematic literature reviews, an effect on the prevalence and intrinsic risk factors of anterior knee pain in volleyball players?

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics approval received from the Commissie Medische Ethiek (O.G. 016), Reflectiegroep Biomedische Ethiek (Belgium) on the 25th May 2007 (ref: B.U.N. B14320071963).

Study design

Cluster randomised clinical trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Treatment

Participant information sheet

Health condition(s) or problem(s) studied

Anterior knee pain disorders

Interventions

Control group:

Normal training routine

Intervention group:

Normal training routine and exercise programme based on systematic literature reviews. The programme lasts four months and involves the following exercises:

1. Closed kinetic chain exercise for isometric strength
2. Open kinetic chain exercise for isometric strength
3. Eccentric exercise and plyometrics with emphasis on technique

The intervention lasts four months, each month another accent:

1. 1st month: emphasis on closed kinetic chain exercise for isometric strength
2. 2nd month: emphasis on closed kinetic chain exercise for isometric strength
3. 3rd month: also eccentric exercise were included
4. 4th month: also plyometrics with attention of landing technique is added

It is a progressive programme and includes strength exercises for vastus medialis (quadriceps), hamstrings, gluteus medius and adductors. It also includes stretching exercises of those muscle groups.

Intervention Type

Other

Phase

Not Specified

Primary outcome measure

Prevalence of anterior knee pain. All measures will be performed prior to and immediately after the intervention period for both the control and intervention groups.

Secondary outcome measures

1. Intrinsic risk factors:
 - 1.1. Static and countermovement jump
 - 1.2. Hip rotation asymmetry
 - 1.3. Ankle dorsal flexion
 - 1.4. Patellar mobility
2. Quadriceps flexibility
3. Hamstring flexibility

All measures will be performed prior to and immediately after the intervention period for both the control and intervention groups.

Overall study start date

01/08/2005

Completion date

01/05/2006

Eligibility

Key inclusion criteria

1. Senior volleyball teams of the Vlaamse Volleybal Vereniging (VVB) playing in the following divisions: 1st National, 1st and 2nd Regional
2. Players should be Dutch speaking
3. Male and female adults
4. The teams practice hosting are located withing a one hour-driving distance from Brussels

Participant type(s)

Patient

Age group

Adult

Sex

Both

Target number of participants

According to the a priori power analysis the target subject number is 226

Key exclusion criteria

Playing in other divisions than those mentioned in the inclusion criteria and located farther than one hour-driving distance from Brussels.

Date of first enrolment

01/08/2005

Date of final enrolment

01/05/2006

Locations**Countries of recruitment**

Belgium

Study participating centre

Vrije Universiteit Brussel

Brussels

Belgium

1050

Sponsor information**Organisation**

Policy Research Center Sports, Physical Activity and Health (Belgium)

Sponsor details

Studentenwijk Arenberg 1

Leuven

Belgium

3001

Sponsor type

Government

Website

Funder(s)

Funder type

Government

Funder Name

Policy Research Center Sports, Physical Activity and Health (Belgium) - financially supported by the Flemish Government

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	05/06/2008		Yes	No