

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

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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

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Additional identifiers

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

Study type(s)

Treatment

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(s)

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.

Key secondary outcome(s)

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.

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 within a one hour-driving distance from Brussels

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

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)

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

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