

# The effect of different delivery methods of the FIFA 11+ soccer warm-up program on coach and player adherence in Canadian female youth soccer players

<b>Submission date</b> 20/09/2012	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 25/09/2012	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 30/10/2013	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

Background and study aims:

Previous studies have shown that for youth sports, muscular warm-up routines can reduce injury risk. A study in Norway showed The FIFA 11+ program in reduced the risk of all injuries by 32%, and leg injuries by 29%. In the same project, it was also shown that there is a greater protective effect in players who keep up with the FIFA 11+ program, meaning a risk reduction of all injuries by 35% for those players participating.

A similar injury prevention warm-up program yielded a protective effect of a 38% reduction in injuries in Canada. To maximize the benefit of effective injury prevention programs, we investigated the behavioural change required to increase the number players starting to use the program, and continue to use the program in the long term.

Who can participate?

Female soccer players, aged 14 to 18 years from 29 minor soccer teams from the Premiere Division, in Canada and playing in the 2011 outdoor season.

What does the study involve?

A total of 385 female soccer players (14 to 18 yrs) from 29 teams were randomly allocated to one of 3 groups. The first group participated in the FIFA 11+ program, and were followed up weekly. The second group participated in the FIFA 11+ program and access to a personal contact every 2 weeks. Control group were only given the link to the FIFA 11+ website. Each player was assessed to see how well they used the FIFA 11+ program, if they experienced injuries and were followed-up weekly.

Adherence (how well the players continued with the program) was based on the number of sessions completed with the FIFA 11+ out of the total amount of sessions possible, as well as the time spent on the warm-ups completed by the team. Before the start of the study period and after the final game of the study period, all head, assistant and conditioning coaches and players

in were asked to complete a survey to evaluate coach and player attitudes and knowledge to injury prevention. In addition, all players were asked to participate in assessments examining functional balance and jumping abilities.

What are the possible benefits and risks of participating?

Participants who experience a soccer injury during the study may be offered a free onfield assessment by a physiotherapist. Further more, participants with serious injuries where time loss from soccer is greater than 7 days may be referred to a sport medicine physician for an assessment at no charge. There are no expected risks of participating in the study as the program has previously shown a protective effect against injury. However there is a risk of injury or muscular soreness due to poor technique, or rapid increase in exercise level.

Where is the study run from?

Calgary , Edmonton, and Red Deer Alberta, Canada

When is study starting and how long is it expected to run for?

The study took place between April and September 2011

Who is funding the project?

Federation Internationale de Football Association (FIFA)

Who is the main contact?

Dr Carolyn Emery  
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## Contact information

**Type(s)**

Scientific

**Contact name**

Dr Winne Meeuwisse

**Contact details**

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## Additional identifiers

**Protocol serial number**

N/A

## Study information

**Scientific Title**

The effect of different delivery methods of the FIFA 11+ soccer warm-up program on coach and player adherence in Canadian female youth soccer players

### **Study objectives**

Does the comprehensive delivery of the FIFA 11+ injury prevention warm-up program have a more significant effect in maximizing team and player adherence and improving neuromuscular performance among youth soccer players, than a self-regulated delivery among teams with unsupervised access to FIFA 11+ program resources?

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Conjoint Health Research Ethics Board, The University of Calgary, 07 April 2011 ref: 23791

### **Study design**

This is a single-centre RCT with co-investigators from other international centres. Teams were block-randomized into one of three groups

### **Primary study design**

Interventional

### **Study type(s)**

Prevention

### **Health condition(s) or problem(s) studied**

Adherence to the FIFA 11+ neuromuscular warm-up program and its affect on lower limb and overall injury risk, performance and injury prevention beliefs

### **Interventions**

Control group teams: were given online access to the FIFA 11+ website

Regular intervention group teams: in addition to online access of the FIFA11+ website (as per Control group) this group was provided with hardcopies of educational material given through the FIFA 11+ website (DVD, cards, and posters). Coaches from these teams also were required to attend a 1-2 hour pre-season coaching workshop where the FIFA 11+ program was delivered to them by research personnel.

Intervention group teams: As well as being given online access to the FIFA11+ website (as per Control group), program resources and attendance to a coaching workshop (as per Regular intervention group), teams in this group were assigned study personnel (physiotherapist, athletic therapist or trainer) to teach the intervention program to the coaches and players, and participate weekly in a team session to correct technique and progress through the program components.

### **Intervention Type**

Other

### **Phase**

Not Applicable

**Primary outcome(s)**

Team adherence to the FIFA 11+, based on the total number and the proportion of the total number of possible sessions completed, warm-up components completed and the total time for warm-up sessions completed (i.e. target 20 minutes per session warm-up).

**Key secondary outcome(s)**

1. Coaches and players' attitudes to and knowledge of injury prevention, which will be assessed pre and post-season. Measured qualitatively and quantitatively through Theory of Planned Behaviour Model
2. Changes in neuromuscular performance measures carried out as field-tests on all intervention and control players pre-and post-season. These include unipedal balance test (s), Star Excursion Balance Test (cm), triple single leg hop (cm), jumping over a bar (#)
3. Injury rates (per 1000 hr of exposure) as well as injury rate ratios

**Completion date**

30/09/2011

**Eligibility****Key inclusion criteria**

Female youth soccer players (ages 14 to 18 years) participating in a minor soccer team within Alberta at the commencement of the 2011 outdoor soccer season (Premiere Division Tiers 1-3, U16, U18).

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

Female

**Key exclusion criteria**

1. Recent (within 6 weeks) history of back or lower extremity injury requiring medical attention or the inability to participate in soccer for at least one day and preventing the player from participating fully at the commencement of the 2011 outdoor season
2. History of systemic disease (e.g. cancer, arthritis, heart disease), neurological disorder (i.e. head injury, cerebral palsy), preventing the ability to participate fully at the commencement of the 2011 outdoor soccer season
3. History of bone fracture or surgery in the past year, preventing the ability to participate fully at the commencement of the 2011 outdoor soccer season

**Date of first enrolment**

01/04/2011

**Date of final enrolment**

30/09/2011

## Locations

**Countries of recruitment**

Canada

**Study participating centre**

**University of Calgary**

Calgary

Canada

T2N 1N4

## Sponsor information

**Organisation**

Federation Internationale de Football Association [FIFA] (Switzerland)

**ROR**

<https://ror.org/0381nq624>

## Funder(s)

**Funder type**

Other

**Funder Name**

Federation Internationale de Football Association [FIFA] (Switzerland)

## 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?
<a href="#">Results article</a>	results	01/05/2013		Yes	No