# Dynamic versus static stretching in the sports warm-up

Submission date	Recruitment status	Prospectively registered
01/02/2010	No longer recruiting	Protocol
Registration date	Overall study status	Statistical analysis plan
09/02/2010  Last Edited	Completed  Condition category	Results
		Individual participant data
09/02/2010	Signs and Symptoms	Record updated in last year

### Plain English summary of protocol

Not provided at time of registration

### Contact information

### Type(s)

Scientific

#### Contact name

Dr Gayle Silveira Rebello

#### Contact details

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### Additional identifiers

**EudraCT/CTIS** number

**IRAS** number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

# Study information

### Scientific Title

Dynamic stretching in the warm-up enhances both static and dynamic hamstring flexibility while static stretching only impacts static flexibility: a randomised controlled trial

### Study objectives

- 1. Static flexibility measurements will not correlate with dynamic hamstring flexibility measures
- 2. Static stretching exercises will only improve static flexibility and will have no impact on dynamic hamstring flexibility
- 3. Dynamic stretching exercises will improve dynamic flexibility and will have no impact on static flexibility
- 4. The intervention treatments will be gender dependent, i.e., females will achieve greater changes in hamstring flexibility following each of the stretching intervention

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Committee for Ethics in Human Research approved from 8th December 2004 until 8th December 2006 (ref: CEHR 04-94)

### Study design

Randomised cross-over controlled trial

### Primary study design

Interventional

### Secondary study design

Randomised controlled trial

### Study setting(s)

Other

### Study type(s)

Treatment

### Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

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

Hamstring flexibility/hip flexion range of motion

#### **Interventions**

The final sample consisted of 12 students of which five females and seven males served as participants.

Participants (n = 12) were randomly assigned to three intervention treatments of 225 seconds on separate days in a cross-over study design:

Treatment 1: No stretching
Treatment 2: Static stretching
Treatment 3: Dynamic stretching

Each participant presented for testing for a duration of approximately 15 minutes on a designated day - once every week for three weeks (three sessions in total).

### Intervention Type

Other

### **Phase**

Not Applicable

### Primary outcome measure

Change in hamstring flexibility (hip ROM in degrees) after each intervention (Treatment 1, 2, 3) from pre-test to post-test

### Secondary outcome measures

No secondary outcome measures

### Overall study start date

01/01/2005

### Completion date

01/07/2006

# Eligibility

### Key inclusion criteria

- 1. Drawn from a variety of sporting backgrounds which predominantly involved the lower body
- 2. Trained lightly for a minimum of three times a week
- 3. Did not use any routine muscle flexibility training in their regular training program of their specific sport
- 4. Free of any bony or soft tissue injury to the spine and lower limbs, and no history of the same in the past one year
- 5. Adults (aged 18 years and over), either sex

### Participant type(s)

**Patient** 

### Age group

Adult

### Lower age limit

18 Years

#### Sex

Both

### Target number of participants

### Key exclusion criteria

- 1. Those who had an designated period of stretching in daily warm-up routine
- 2. History of lower limb/lumbosacral spine injury in the last year
- 3. Inability to be present for testing sessions every week

### Date of first enrolment

01/01/2005

### Date of final enrolment

01/07/2006

### Locations

### Countries of recruitment

Australia

# Study participating centre Unit 4, 5 Adelaide Terrace

South Australia Australia 5039

# Sponsor information

### Organisation

Individual Sponsor (Australia)

### Sponsor details

c/o Gayle Silveira Rebello Unit 4, 5 Adelaide Terrace Edwardstown South Australia Australia 5039 +61 (0)4 3172 1469 gaylerebello@yahoo.com

### Sponsor type

Other

# Funder(s)

### Funder type

Other

### Funder Name

Investigator initiated and funded (Australia)

# **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