

# Influence of cranial-sacral osteopathic treatment on the performance of young soccer players

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<b>Registration date</b> 06/02/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 05/02/2015	<b>Condition category</b> Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

CSOT is thought to be a complementary approach for the prevention and treatment of dysfunctions and enhancement of health in osteopathy. In sports medicine, cranial sacral treatments have been proposed for the prevention, restoration and optimization of the function of the body. Players' health condition affects every aspect of their performance ability. According to osteopathic philosophy, structure and function are inter-related and by improving the structure, the function should improve, osteopathic treatments might be a valuable tool to optimise physical performance. The aim in this study is to investigate the effects of CSOT on performance and recovery of young soccer players.

### Who can participate?

Healthy boys who play soccer

### What does the study involve?

Participants will be randomly allocated to one of two groups. Group 1 (n=20) will be treated with osteopathic cranial-sacral diversified techniques and group 2 will receive a sham intervention for 8 weeks. The effects after CSOT will be compared with those of the sham intervention.

### What are the possible benefits and risks of participating?

A benefit might be that participants notice some improvements in their performance. The risks might be physical injury and cardiovascular risks.

### Where is the study run from?

Junior Team Futebol Club (Brazil)

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

From February 2015 to April 2014

### Who is funding the study?

British School of Osteopathy (UK)

Who is the main contact?  
Ms Patricia Miyuki Hirai

## Contact information

**Type(s)**  
Scientific

**Contact name**  
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## Additional identifiers

**Protocol serial number**  
N/A

## Study information

**Scientific Title**  
Influence of cranial-sacral osteopathic treatment on the performance of young soccer players: a single-blind randomised controlled study

**Study objectives**  
1. Cranial-sacral osteopathic treatments (CSOTs) can be a valuable tool to enhance training recovery, assessed by the repeated sprint ability test (RSAT), heart rate variability (HRV), heart rate and perceived recovery wellbeing, in young soccer players  
2. CSOTs can positively influence performance in young soccer players

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
British School of Osteopathy Research Ethics committee, 18/06/2014

**Study design**  
Single-blind randomised controlled study

**Primary study design**  
Interventional

## **Study type(s)**

Treatment

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

Training performance of young soccer player

## **Interventions**

Soccer players will be randomly assigned to one of two treatments for 8 weeks:

1. CSOT: motion analysis of cranial-sacral movements with patient lying supine; areas of dysfunctional motion will receive specific treatment consisting of occipital-sacral rhythm, sphenobasilar and compression of the fourth ventricle techniques applied according to the findings.
2. Sham intervention: standardised light manual contact on the same anatomical regions as the CSOT group, without therapeutic intention; seven serial calculations will be subtracted in silence

## **Intervention Type**

Procedure/Surgery

## **Primary outcome(s)**

1. Physical performance (RSAT – RSAT<sub>best</sub> and RSAT<sub>mean</sub>) in the the first, fourth and eighth weeks
2. Perceived recovery wellbeing (training wellbeing diary, adapted from Bompa and Haff, 2009) before every intervention
3. Adaptation aspects (HRV before and after each CSOT and sham procedure)
4. Mean heart rate during the last 30 seconds of exercise

## **Key secondary outcome(s))**

Verify whether osteopathy is a valuable adjuvant tool to enhance performance in young soccer players

## **Completion date**

25/04/2015

# **Eligibility**

## **Key inclusion criteria**

1. Physically and mentally healthy athletes without any symptoms of neuromusculoskeletal pain, injury or illness
2. Soccer players
3. Age 16–18 years
4. Legal guardians' consent for participation in the study
5. Regular attendance at training sessions and competitive matches for 5 days a week for at least 5 years
6. Defenders (central and external/full-backs and wing-defenders), midfielders (central and wide) and attackers (forwards)
7. Naïve to cranial-sacral osteopathic care
8. Possessing no previous knowledge and experience of cranial-sacral osteopathic procedures
9. No change of medical or physical routine because of the addition of the new procedures

## **Participant type(s)**

Healthy volunteer

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Sex**

Male

**Key exclusion criteria**

1. Acute fracture or infections
2. Cancer
3. Signs of progressive neurological deficit
4. Professional soccer athletes
5. Goalkeepers (since technical skills differ significantly from outfield players and have a specific physiological and biomechanical profile [Eirale et al, 2014])
6. Current illness
7. Suspicion of increased intracranial pressure
8. Cardiac disease
9. Pulmonary diseases
10. Injuries
11. Signs or symptoms of pain or illnesses such as inflammation

**Date of first enrolment**

11/02/2015

**Date of final enrolment**

11/02/2015

**Locations**

**Countries of recruitment**

Brazil

**Study participating centre**

Junior Team Futebol Club

Londrina

Brazil

**Sponsor information**

**Organisation**

British School of Osteopathy

**ROR**

<https://ror.org/05tnja216>

## **Funder(s)**

**Funder type**

University/education

**Funder Name**

British School of Osteopathy

## **Results and Publications**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not provided at time of registration