

# Knee cap dislocation and mode of movement in babies

<b>Submission date</b> 03/01/2019	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 07/01/2019	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 11/01/2019	<b>Condition category</b> Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Malformation of the groove within which the knee cap articulates is known as trochlea dysplasia. It is the most significant risk factor for dislocation of the knee cap, been present in >85% of patients with this. There remains no consensus on the cause. In the hip, one of the risk factors for malformation of the socket with which the thigh bone articulates (developmental dysplasia of the hip) includes things that happen soon after birth such as how the baby is carried and whether or not this allows the thigh bone to adequately impress on the socket. As such, there is a greater likelihood of developing developmental dysplasia of the hip in babies carried with hips extended compared to hips astride. It may be therefore that events soon after birth that affect whether or not the knee cap imprints on the trochlea also affect trochlea development. Infants differ in their method of early mobilisation. They may crawl, which places direct pressure on the knee cap likely causing it to imprint the trochlea. They may however bottom shuffle or go straight to walking. These do not place direct pressure on the knee cap, and may therefore result in an increased risk of trochlea dysplasia, which would result in a greater chance of dislocating the knee cap in later life. The aim is to find out if there is an increase in the likelihood of knee cap dislocation among people that were bottom shufflers and/or straight to walkers compared to those that crawled. Walking also changes the dynamics operating between the knee cap and the trochlea. A secondary aim will be to find out if there is any relationship between age of onset of independent walking and knee cap dislocation in later life.

### Who can participate?

Patients identified retrospectively who have had an MRI scan of their knee in the last three years at university hospitals Birmingham.

### What does the study involve?

A questionnaire shall be used for both the study and control groups.

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

No direct benefits to participants anticipated. Possible risks; Participants contact details shall be accessed without prior consent in order to contact them about the study.

Where is the study run from?

University Hospital Birmingham, Heartlands, Solihull and Good Hope hospitals. Heartlands is the lead site

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

June 2018 to December 2020

Who is funding the study?

Funded by chief investigator; Bamikole Ogunwale

Who is the main contact?

Bamikole Ogunwale

bamikole\_ogunwale@hotmail.com

## Contact information

### Type(s)

Public

### Contact name

Dr Bamikole Ogunwale

### Contact details

Radiology Department  
Birmingham Heartlands Hospital  
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### Type(s)

Scientific

### Contact name

Mr Bamikole Ogunwale

### Contact details

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## Additional identifiers

### Protocol serial number

2017092RD

## Study information

**Scientific Title**

Transient patella dislocation and mode of early mobilisation

**Acronym**

EMS & TPD

**Study objectives**

Determine if the mode of mobilisation used by babies pre-walking influences risk of patella dislocation in later life.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

East Midlands - Leicester South Research Ethics Committee, 02/01/2018, ref. 17/EM/0445

**Study design**

Case controlled study, single centre, observational

**Primary study design**

Observational

**Study type(s)**

Prevention

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

Transient patella dislocation

**Interventions**

Participants shall be identified via a search of the radiology database using keywords. Questionnaires shall then be sent to participants asking them to identify their mode of mobilisation before walking and age at which they started walking. There will be no follow-up.

**Intervention Type**

Other

**Primary outcome(s)**

The type of early mobilisation used by patients with transient patella dislocation will be measured using a questionnaire developed for this study.

**Key secondary outcome(s)**

The age of independent walking (age at which first five unaided steps were taken) in patients with transient patella dislocation. will be determined using a questionnaire.

**Completion date**

31/12/2019

**Eligibility**

**Key inclusion criteria**

1. Age 10 to 35 years
2. Transient patella dislocation on MRI in last 3 years
3. Able to read English

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Sex**

All

**Key exclusion criteria**

N/A

**Date of first enrolment**

21/07/2018

**Date of final enrolment**

31/12/2019

**Locations****Countries of recruitment**

United Kingdom

England

**Study participating centre****Birmingham Heartlands Hospital**

Birmingham Heartlands Hospital

Bordesley Green East

Birmingham

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B9 5SS

**Study participating centre****Solihull Hospital**

Lode Lane

Solihull

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B91 2JL

**Study participating centre**  
**Good Hope Hospital**  
Rectory Road  
Sutton Coldfield  
United Kingdom  
B75 7RR

## Sponsor information

**Organisation**  
University Hospitals Birmingham

**ROR**  
<https://ror.org/014ja3n03>

## Funder(s)

**Funder type**  
Other

**Funder Name**  
Investigator initiated and funded

## Results and Publications

### Individual participant data (IPD) sharing plan

The data sharing plans for the current study are unknown and will be made available at a later date

### IPD sharing plan summary

Data sharing statement to be made available at a later date

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">HRA research summary</a>			28/06/2023	No	No