

# Does early mobilisation after ankle fracture surgery enhance recovery?

<b>Submission date</b> 08/01/2015	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 08/01/2015	<b>Overall study status</b> Completed	<input checked="" type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 15/01/2024	<b>Condition category</b> Surgery	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English Summary

### Background and study aims

Ankle fractures are common and many require surgery. After surgery, patients are managed in many different ways depending on their age, physical ability, fracture type, bone quality and surgeon. However, guidelines and evidence suggest that being able to actively move the ankle a couple of weeks after surgery in a removable boot might be beneficial to the patient. The two methods being compared are plaster cast and an Aircast® boot. Managing an ankle fracture with a plaster cast means that patients keep their injured ankle relatively still (immobilised) whilst managing an ankle fracture with an Aircast® boot means that patients can move their injured ankle quite soon after surgery – this is called early mobilisation. The findings of this study will be used to determine which treatment is best and which, if any, can be recommended as standard care for patients who fracture their ankles and need surgery.

### Who can participate?

Adults that have recently had surgery for an ankle fracture.

### What does the study involve?

Participants are randomly allocated into one of two groups. Those in group 1 are given a plaster cast. Those in group 2 are given a removable support boot. All participants then attend a clinic appointment 4 weeks later (6 weeks post-surgery) and assessments performed. Participants are asked to complete questionnaires at 5 weeks (7 weeks post- surgery) and (12 weeks post-surgery). Up to twenty patients are also asked to take part in telephone interviews to describe their experiences of their treatment. These data is compared between the two groups in order to evaluate which treatment is best in terms of function, quality of life, psychological, social, economic impact and patient experience as well as costs and benefits to the National Health Service, patients and society.

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

Whilst there are no immediate benefits for those people participating in the project, it is hoped that their participation will mean those in the future who experience a similar injury will receive the best/most appropriate treatment for their injury and will make the best use of NHS resources.

Where is the study run from?

Poole Hospital NHS Foundation Trust (lead site) and other NHS hospitals in the South East of England (UK)

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

February 2015 to April 2019

Who is funding the study?

National Institute for Health Research (UK)

Who is the main contact?

Mr Lee Tbaily

## Contact information

### Type(s)

Scientific

### Contact name

Mr Lee Tbaily

### Contact details

Research & Innovation

Cornelia House

Poole Hospital NHS Foundation Trust

Longfleet Road

Poole

United Kingdom

BH15 2JB

## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

18022

## Study information

### Scientific Title

Does early mobilisation after Ankle fracture surgery enhance Recovery? A pragmatic multi-centre randomised controlled Trial with qualitative component and health economic analysis comparing the use of plaster versus Aircast® boot.

### Acronym

ART V1.0

**Study hypothesis**

The aim of the study is to evaluate the relative effectiveness and cost-effectiveness of two methods of post-operative ankle fracture management (plaster versus Aircast® boot with range of movement) and to provide evidence-based recommendations for best care in clinical practice.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

NRES Committee South Central – Hampshire A, 22/12/2014, ref: 14/SC/1409

**Study design**

Randomized controlled trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Hospital

**Study type(s)**

Treatment

**Participant information sheet**

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

**Condition**

Topic: Musculoskeletal, Surgery; Subtopic: Musculoskeletal (all Subtopics), Surgery; Disease: Musculoskeletal, Surgery

**Interventions**

Current Interventions as of 06/12/2017:

1. Removable support boot: Removable boot with range of movement for four weeks
2. Plaster Cast: Plaster below knee i.e. immobilised for four weeks

Previous Interventions:

1. Aircast® boot: Aircast® boot with range of movement for four weeks
2. Plaster Cast: Plaster below knee i.e. immobilised for four weeks

**Intervention Type**

Procedure/Surgery

**Primary outcome measure**

Olerud and Molander Ankle Score; Timepoint(s): Five weeks post randomisation

**Secondary outcome measures**

1. Ankle functional data (range of movement, weight-bearing)
2. Standardised measure of general quality of life (EQ-5D-5L)
3. Healing status
4. Complications
5. Return to Usual Activities

**Overall study start date**

01/03/2015

**Overall study end date**

30/04/2019

## Eligibility

**Participant inclusion criteria**

1. Received surgery for fixation of unstable ankle fracture
2. Provision of informed consent to participate

**Participant type(s)**

Patient

**Age group**

Adult

**Sex**

Both

**Target number of participants**

Planned Sample Size: 246; UK Sample Size: 246

**Total final enrolment**

262

**Participant exclusion criteria**

1. Under 16 years old (skeletally immature)
2. Poor skin condition at operation site
3. Serious concomitant disease (e.g. stroke, osteoporosis, arthritis)
4. Diabetic neuropathy/other sensory neuropathy (lack of sensation)
5. Non-ambulatory prior to injury
6. Active leg ulceration
7. Patients who are unable to understand the study information or unable to complete the outcome questionnaires
8. Surgeon concerned about quality of fixation/integrity of wound
9. Fracture requiring further stabilisation in/around the ankle (e.g. syndesmosis).
10. Open ankle fracture (bone broken through skin)
11. Participant is a participant in other concurrent interventional research which may overburden the participant or confound data collection
12. Concomitant injuries which will have a confounding effect on rehabilitation in the opinion of the investigator

**Recruitment start date**

01/08/2015

**Recruitment end date**

31/08/2018

## Locations

**Countries of recruitment**

England

United Kingdom

**Study participating centre****Poole Hospital NHS Foundation Trust**

Dorset Research and Development Support Unit

Cornelia House

Longfleet Road

Poole

United Kingdom

BH15 2JB

**Study participating centre****Hampshire Hospitals NHS Foundation Trust**

Basingstoke and North Hampshire Hos

Aldermaston Road

Basingstoke

United Kingdom

RG24 9NA

**Study participating centre****Musgrove Park Hospital (taunton)**

Musgrove Park Hospital

Taunton

United Kingdom

TA1 5DA

**Study participating centre****North West Anglia NHS Foundation Trust**

Peterborough City Hospital

Bretton Gate

Bretton

Peterborough

United Kingdom  
PE3 9GZ

**Study participating centre**  
**Queen Alexandras Hospital**  
Southwick Hill Road  
Cosham  
Portsmouth  
United Kingdom  
PO6 3LY

**Study participating centre**  
**Solent NHS Trust**  
Solent NHS Trust Headquarters  
Highpoint Venue  
Bursledon Road  
Southampton  
United Kingdom  
SO19 8BR

**Study participating centre**  
**Salisbury District Hospital**  
Salisbury District Hospital  
Odstock Road  
Salisbury  
United Kingdom  
SP2 8BJ

**Study participating centre**  
**Torbay and South Devon NHS Foundation Trust**  
Torbay Hospital  
Newton Road  
Torquay  
United Kingdom  
TQ2 7AA

**Study participating centre**  
**Yeovil District Hospital**  
Yeovil District Hospital  
Higher Kingston  
Yeovil

United Kingdom  
BA21 4AT

## Sponsor information

### Organisation

Poole Hospital NHS Foundation Trust

### Sponsor details

Dorset Research and Development Support Unit  
Cornelia House  
Longfleet Road  
Poole  
England  
United Kingdom  
BH15 2JB

### Sponsor type

Hospital/treatment centre

### ROR

<https://ror.org/03kdm3q80>

## Funder(s)

### Funder type

Government

### Funder Name

National Institute for Health Research

### Alternative Name(s)

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

### Funding Body Type

Government organisation

### Funding Body Subtype

National government

### Location

United Kingdom

# Results and Publications

## Publication and dissemination plan

A number of scientific papers will be produced from the collated anonymised study data. Results will be published in peer reviewed journals aimed at both surgeons and physiotherapists (e.g. Annals of the Royal College of Surgeons, Journal of Bone and Joint Surgery and Physiotherapy. Papers will include messages about functional, socio-economic and psychological outcomes as well as the publication of the protocol. Results will also be published in the Health Service Journal, to authors of the Cochane review, and findings will be disseminated at conferences and via oral presentations at local, national and international trauma/orthopaedic and physiotherapy meetings. Participants and the general public will also be informed via via flyers, posters, Bournemouth University Clinical Research Unit website, Bournemouth University Research Blog, Twitter, podcast, press releases to the media.

## Intention to publish date

30/04/2024

## 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="#">Protocol file</a>	version 1.6	05/03/2018	14/03/2023	No	No
<a href="#">Statistical Analysis Plan</a>	version 1.1		14/03/2023	No	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Other publications</a>	Cost-effectiveness analysis and qualitative findings	11/01/2024	15/01/2024	Yes	No