CONTROLLED ANKLE MOVEMENT (CAM) BOOT APPLICATION - ED - SCH

PRACTICE GUIDELINE ©

DOCUMENT SUMMARY/KEY POINTS

- The Controlled Ankle Movement (CAM) or Paediatric Walker® boot is a device designed to provide basic protection, support and mobility with minimal discomfort during recovery from some foot and ankle related injuries.
- CAM boots stabilise the foot and ankle. They allow weight-bearing and removal for bathing and sleeping.
- This guideline covers indications for use and application technique

Indications

- Suitable for stable, non-displaced fractures of the metatarsals or distal fibula

Exclusions

- They are **Not suitable** for ankle sprains, tibial fractures (including fractures of medial malleolus) or toe fractures
- Caution should be taken with soft tissue injury associated with significant pain and swelling.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st November 2021	**Review Period:** 3 years
Team Leader:	Nurse Practitioner	**Area/Dept:** Emergency Department SCH

CHANGE SUMMARY

- Child Small size included in table

READ ACKNOWLEDGEMENT

- All SCH ED clinical staff, medical and nursing, are to read and acknowledge this document

Controlled Ankle Movement Boot

The CAM boot is a device designed to provide basic protection, support and mobility with minimal discomfort during recovery from some foot and ankle related injuries

Purpose and Scope

The purpose of this guideline is to ensure that nursing and medical staff in the Emergency Department know indications for use and correct fitting technique of a CAM boot

Responsibilities

Management is responsible for ensuring that registered nurses and medical staff who undertake this practice are provided with the appropriate knowledge and training.

Other names

- Other names include: Moon Boot, Orthopaedic Boot, Walker, Cast Boot, 'Air-cast', Medical Boot, Walking Cast, and Fracture Boots.

Indications

CAM boots stabilise the foot and ankle. They allow weight-bearing and removal for bathing and sleeping.

They are suitable for stable, non-displaced fractures of the metatarsals or distal fibula – (see detail below)

Consult the orthopaedic team for advice on appropriate use or indications for a CAM boot as needed.

Inclusion Criteria:

- Fracture of the distal fibula or lateral malleolus, non-displaced without associated tibial fracture
- Fracture of the metatarsal shaft, non-displaced
- Fracture of the base of 5th metatarsal

Exclusion Criteria

- Ankle sprains
- Tibial fractures including fractures of medial malleolus
- Toe fractures (Consider a Darco ® shoe)

Precautions:

- Significant soft tissue injury with pain and swelling: close observation may be required
- Consider analgesia prior to fitting
- The boot is single patient use only

Fitting Instructions [1, 2]

Paediatric Boots[1]

Size	Fits Child Shoe (AU)
Small Paediatric	Child less than shoe Size 10
Medium Paediatric	Child 10 – 13 (average 4-6 years)
Large Paediatric	Child 1 – 3 (average 6-7 years)

Adult Boots[1]

Size	Fits Men Shoe	Fits Women Shoe
X-Small	2 - 4	3.5 - 5.5
Small	4.5 - 7	5.5 - 8.5
Medium	7.5 - 10.5	8.5 - 12

Note: There is no left or right foot selection required.

Procedure: [1]

1. Select the boot size that corresponds to the child's usual shoe size
2. The child should be seated with the leg flexed at 90 degrees
3. Open fasteners and remove the liner from the boot
4. Fit the liner first. Place the foot and lower leg in the liner. Make sure the heel fits snugly into the back of the liner. Overlap the liner across the top of the foot and then across the lower leg. Ensure fasteners are firmly secured.
5. Place the foot and leg into the rigid outer shell:-
   - Ensure the heel is seated firmly in the back of the boot.
   - Ensure the top back edge of the boot does not cover or restrict the posterior knee crease
   - Toes should not extend beyond the end of the rigid boot shell, but may extend beyond the liner
   - Align the upright struts with the malleoli and along the lateral and medial midline of the lower leg. Failure to correctly align may result in knee hyperextension
   - The lower leg should be kept at a 90 degree angle with the foot during fitting
6. Remove the 'PULL UP' tabs located in between the struts and liner at the top of the boot. This allows the liner to be secured into position.
7. Close and adjust the boot straps on the rigid outer shell. Start at the toes to ensure the foot is stabilised before

adjusting fasteners up the leg.

8. The boot should be snug but not tight. Additional foam pads (provided) may be placed under straps to accommodate for potential rubbing or pressure. They may be located inside or outside the liner or around the heel area for additional comfort
9. Once fitted, allow the patient to stand and check for slip or tightness and re-adjust as required
10. If unable to obtain an appropriate size that is secure and comfortable, then a plaster backslab should be considered
11. Crutches may be required for partial or supported weight bearing in the days following injury

Information on care and use:

1. The parent/carer and /or child should be given instruction on removing and applying the boot. The liner should remain fixed insitu within the boot shell
2. A sock or stocking may be worn under the boot for comfort and hygiene. Avoid creases or constricting bands of elastic which may cause pressure to the soft tissues[2]
3. If a loss of circulation is felt, or if the boot feels too tight, release the straps and adjust to a comfortable level. If discomfort continues, seek medical advice [1]
4. The CAM boot should be worn at all times other than whilst sleeping or to enable bathing and skin care of the limb. The boot may be released with the limb elevated to enable application of ice to areas of soft tissue swelling in the acute phase of injury. The boot should be re-fastened prior to standing or walking
5. Weight bearing may be full or partial as directed by the treating clinician
6. If skin irritations of any kind develop, seek medical advice [1]
7. Cleaning: The boot may be wiped over with a moist cloth and mild detergent. The boot should not be dismantled or submerged in water [2]

Discharge and Follow-up

- Use of a CAM boot should be recorded in the Progress Note (eMR)
- Radiology reports will be routinely reviewed as per local protocol. If indicated, further patient review will be arranged.
- Local Medical Officer (LMO) review is suitable for children with non-complex, minor fractures. Use of the boot may be tapered after 2-3 weeks or as directed by the clinician, then return to supportive footwear and graduated activities of daily living as tolerated.
- Orthopaedic follow up should be considered where diagnosis is uncertain, clinical concern exists, elevated parent/carer concern, lack of available community review or when specialist advice is required for ongoing management/return to sport or usual activities.

This Guideline may be varied, withdrawn or replaced at any time.

- Children with ongoing significant pain not relieved by over-the-counter analgesics, neurovascular compromise, further injury or non-compliance should return to the ED for review and consideration of a cast.
- The boot is single patient use only.

References:

1. OSSUR "Pediatric Walker" product information. Grjothals, 110 Reykjavik, Iceland. 2012
2. Ruth Baker, Orthotist, SCH Orthotic Department, *Points of discussion, in-service training February 2015*,

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