

Congenital Foot Deformities Local Guideline

Key Document Code:	WAHT-KD-015
Key Document Owner:	Viviana Weckemann
Approved by:	Paediatric Governance Meeting
Date of Approval:	19 th June 2024
Date of Review:	19 th June 2027
This the most current version and should	
be used until a revised document is in	
place	

Date	Amendments	Approved by
16 th Sept 25	Minor amendment to physio referral email address at BCH	Dr Weckemann

Introduction

This guideline is intended for all staff who conduct neonatal examinations. It details the appearance of common congenital foot deformities, their management and how to refer to tertiary care if required. This guideline was designed in conjunction with the Physiotherapy department at Birmingham Children's Hospital.

Acknowledgments

Adapted with permission from Ryan Deakin (Advanced Paediatric Physiotherapist, Birmingham Children's Hospital) by Aiesha Alexander (Paediatric Registrar), Juliana Oyenyi (Paediatric Registrar), Viviana Weckemann (Consultant Paediatrician and Muhammad Muzaffar (Junior Clinical Fellow)

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Congenital Foot Deformities Local Guideline		
WAHT-KD-015	Page 1 of 8	Version 1.1



Details of guideline

- All newborn babies are examined after birth and this examination should include an assessment for foot deformities.
- All newborn babies should have full passive ankle/foot range of movement (ROM) checked at birth.
- If the baby with a foot deformity has a full ROM this is classed as FULLY CORRECTABLE and is therefore normal. No referral is required as no intervention is needed.
- Inability to achieve full passive ankle/foot ROM is classed as NOT FULLY CORRECTABLE. ALL
 newborn feet that are NOT FULLY CORRECTABLE require a referral to paediatric physiotherapy as
 soon as possible.
- Talipes may be detected on antenatal scan, and a referral to physiotherapy made antenatally

Congenital Foot Deformities

- Clubfoot (congenital talipes equinovarus)
- Metatarsus Adductus
- Positional Calcaneovalgus
- Congenital vertical talus (rocker-bottom foot)

Clubfoot (Congenital Talipes Equinovarus)



It is more common in boys than girls. In most cases it is an isolated abnormality.

Classification

Positional Talipes	Idiopathic 'True' Talipes	Secondary/Syndromic
Temporary condition	Structural deformity	When a structural 'true' talipes
The foot may have some signs of a structural clubfoot deformity but is correctable by simple pain free manipulation on examination and able to move in all directions.	The position of the foot cannot be corrected on physical examination. Often detected on 20-week scan	deformity is associated with an underlying medical condition such as Spina Bifida or Arthrogryposis

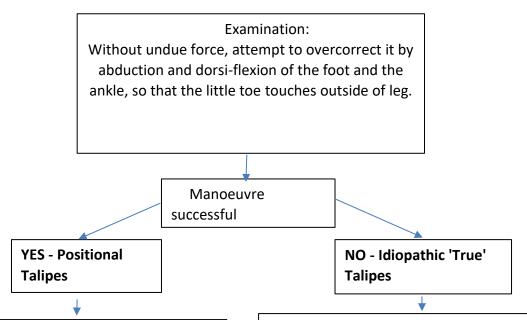
If True Talipes Equinovarus is not detected at birth or shortly after birth, the correction of the deformity can be hindered, and the outcome of the treatment will potentially be less successful. Unsuccessful treatment has a significant effect on the long-term functional ability of the child into their adult life.

Congenital Foot Deformities Local Guideline			
WAHT-KD-015 Page 2 of 8 Version 1.1			



Assessment and Management

Flowchart 1



- 1. Reassure parents that the condition is temporary and will self-resolve. The feet usually correct within 6-8 weeks.
- 2. Encourage parents to carry out the following exercises:
- A. Gentle stretches in the opposite direction (upwards and outwards)
- B. Tickling/stroking to the outside of the foot to encourage baby to activate their muscles and move foot outwards themselves.
- 1. Refer to Birmingham Children's Hospital for orthopaedic assessment and physiotherapy (see Flowchart 3: Post natal referral)
- These babies should not be referred to the local physiotherapy services.
- 2. Request USS --> Select USS Hip Upto 9 months of age
- --> Select **Other** in RAD Clinical History --> Mention **Talipes** and details of examination on request. Remember to copy the named consultant in the request, so that they can forward the report to the orthopaedic department at BCH

Congenital Foot Deformities Local Guideline		
WAHT-KD-015	Page 3 of 8	Version 1.1

Worcestershire Acute Hospitals NHS Trust

Metatarsus Adductus



Common temporary condition where the front part of the foot and toes turn inwards causing a lateral curved border.

The rest of the foot is structurally normal with no restrictions in ROM.

Usually, no treatment is required.

If the metatarsus appears stiff with tightness in the medial foot structures these patients can be referred to physiotherapy.

Positional Calcaneovalgus



This is also a temporary foot condition with the foot in extreme dorsiflexion and eversion (foot is positioned upwards and outwards). A positional foot is flexible and corrects with gentle manipulation.

Stretching exercises are taught to parents to point the foot downwards and inwards. This will help stretch out any tightness or banding in the tendons at the front of the ankle.

The positional deformity usually corrects within 6-8 weeks.

Congenital vertical talus



This is a rare condition, occurs in approximately 1 in 10,000 births. In 50% it is associated with other neuromuscular or syndromic conditions.

The talus is pointing down into the sole of the foot causing a "rocker-bottom" deformity. The foot is held upwards and outwards with a deep dorsolateral crease. The calcaneus is contracted due to a tight Achilles which lifts the heel up and outwards, therefore the heel feels soft and empty.

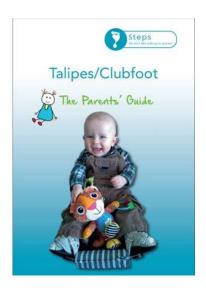
On examination the child will not be able to point the foot down and this cannot be corrected passively.

Treatment involves serial casts being applied to the foot and surgery.

Congenital Foot Deformities Local Guideline		
WAHT-KD-015	Page 4 of 8	Version 1.1



Information Leaflet for parents



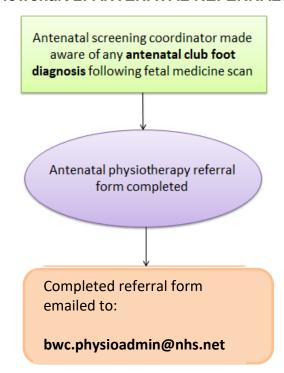
Link to download

<u>Talipes-Clubfoot 2021 v9</u> (stepsworldwide.org)

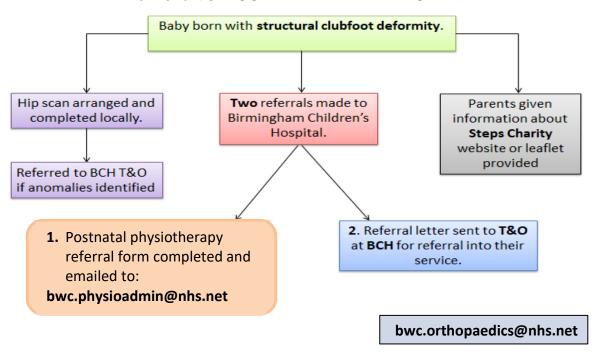
Congenital Foot Deformities Local Guideline			
WAHT-KD-015 Page 5 of 8 Version 1.1			



Flowchart 2: ANTENATAL REFERRALS:



Flow chart 3: POSTNATAL REFERRALS:



Congenital Foot Deformities Local Guideline		
WAHT-KD-015	Page 6 of 8	Version 1.1



BWC Hospitals club foot service: Referring centre information

Hospital:	Contacts:	
Worcestershire Royal Hospital Worcestershire Acute Hospitals NHS Trust Charles Hastings Way	Consultant Paediatrician:	Named consultant of baby
Worcester WR5 1DD	Antenatal and new-born screening coordinator:	Generic email: Wah- tr.AntenatalScreeningResults@nhs.net

BWC Physiotherapy information:	Useful contacts:	
Birmingham Children's Hospital	Therapies reception:	Tel: 0121 333 9480
Therapies Department Parsons House	Admin team email:	Bwc.physioadmin@nhs.net
Steelhouse Lane		
Birmingham B4 6NH	Outpatient physiotherapy team:	bwc.bch.sharedphysio- team@nhs.net
D4 ONT	physiotherapy team.	teamemis.net
	Outpatient	b.kinahan@nhs.net
	physiotherapists:	emily.hughes30@nhs.net
	Team leader:	luke.watson1@nhs.net
	Orthopaedic	0121 333 8100
	secretaries:	0121 333 0100

Congenital Foot Deformities Local Guideline		
WAHT-KD-015	Page 7 of 8	Version 1.1



POSTNATAL CLUB FOOT PHYSIOTHERAPY REFERRAL FORM

Following postnatal diagnosis of congenital foot deformity requiring specialist physiotherapy management, please complete the following referral form fully and email to bwc.bchphysioreferrals@nhs.net.

Referral to:	Birmingham Children's Hospital Physiotherapy department	Date:			
Name of Child:		NHS No:			
Date of Birth:		Gender:			
Address:		GP details:			
Parent 1: -Name -Date of birth -Contact number		Parent 2: -Name -Date of birth -Contact number			
Languages spoken:		Will an interpreter t	be required?	Yes	No
Diagnosis:					
Birth history:	 Gestation: Delivery method: Birth weight: Breech presentation: Known complications/other: 				
Hip scan:	Has the child had a hip scan organised locally? Yes No Details: Result if known:				
Other medical history:					
Referrer details:					

Please note that a separate referral letter must be sent to the Trauma & Orthopaedic team at Birmingham Children's Hospital to refer to their service.

Congenital Foot Deformities Local Guideline				
WAHT-KD-015	Page 8 of 8	Version 1.1		