

**Referral Pathway for Health Visitors and
Family Nurse Partnership Nurses:
Infants with an abnormal hip
examination and/or risk factor for
Developmental Dysplasia of Hip (DDH)**

Date of Issue: October 2024

Date of Review: October 2028



Contents**Page**

Introduction

2

Aim/Purpose

3

Risk Factors

4

Referral Pathway

5

Clinical Examination

6

Appendixes

7-9

References

10

Introduction

Developmental Dysplasia of the Hip (DDH) is a condition that affects a large number of infants. Early detection and treatment can reduce and even prevent long-term disability arising from this condition. It reduces the risk of children requiring surgical intervention.

This referral pathway has been written to ensure there is appropriate, consistent guidance and delivery of service to all infants in each Health and Social Care Trust. It will help inform practitioners on how to identify infants who have this condition, or who are at high risk of having the condition and sets out pathways and timescale for referrals.¹

This guidance has the support of specialist paediatric, orthopaedic and public health experts and is intended for regional implementation.

¹ Child Health Governance Committee_Regional Guidelines for Developmental Dysplasia of the Hip (DDH) Referral_V2_November 2020

Aim

Health Visitors and Family Nurse Partnership Nurses (FNP)² participate in the screening for DDH as part of the Child Health surveillance programme³ and national guidance⁴. The aim of this guidance is to ensure that infants screened by Nurses for DDH receive appropriate assessment and if required a clinical intervention as early as possible.

Examinations to detect DDH are offered to the parents of all infants at the following universal contacts:

- New born infant physical examination within 72 hours by GP, Midwife, Paediatrician or Obstetric trainee⁵
- 10-14 days old by the Health Visitor / FNP Nurse
- 6-8 weeks old by the General Practitioner
- 14-16 week review by the Health Visitor / FNP Nurse

Purpose

The purpose of this pathway is to ensure that Nurses who carry out DDH examination make appropriate referrals for further intervention, including Ultrasound x-ray and / or specialist paediatric orthopaedic assessment when relevant risk factors and clinical findings indicate that this is necessary.

² For the purpose of this guidance the term Nurses will be used when referring to Health Visitors & Family Nurse Partnership Nurses

³ Department of Health, Social Services, and Public Safety. Healthy Child Healthy Future. Belfast: DHSSPS, May 2010.

⁴ Guidance Newborn and infant physical examination (NIPE) screening programme handbook. Updated 27 August 2019 Public Health England

⁵ The referral pathway in this guidance is not intended for referrals made by GPs Midwife, Paediatrician or Obstetric trainee.

Risk Factors for DDH

Nurses should consider risk factors when screening for DDH.⁶ These are:

1. A first-degree family history (mother, father, brother or sister) of hip problems in early life, i.e. a hip problem that started when they were a baby or young child that needed treatment with a splint, harness or an operation.
2. A breech presentation: at or after 36 completed weeks of pregnancy, irrespective of presentation at delivery or mode of delivery, or breech presentation at delivery if this is earlier than 36 weeks
3. In the case of a multiple birth, if any of the babies fall into either of the above categories, all babies in this pregnancy should have an ultrasound examination.

Lesser risk factors include:

1. Congenital Talipes Equinovarus (CTEV; Clubfoot): These infants should be referred for ultrasound following the newborn assessment and are likely to be under the care of the orthopaedic service from an early stage. The Nurse will continue the screening examinations for DDH as directed by Healthy Child Healthy Future, May 2010. If the child has moved into a Trust area and is not receiving services, a specialist referral will be made.
2. Torticollis: These children should be referred for ultrasound following the newborn examination. If the Nurse has any concern following the screening examination of the hips, the infant should be referred.

Other moulding issues with the neonatal feet, such as Calcaneovalgus feet (foot pushed up towards shin) or “flexible talipes” (foot turned in but easily stretched out) usually resolve quickly and are not a risk factor for DDH.

An asymmetric skin crease in isolation is not indicative of pathology. Referral is not required if the clinical examination is otherwise normal (i.e. there is no restriction of abduction at the hip, limb lengths are equal, negative Barlow’s or Ortolani’s).

⁶ Public Health England, Newborn and Infant Physical Examination Screening Programme Standards 2016/17
Publication Date: April 2016

Clicks and unequal skin creases with an otherwise normal examination do not require a referral.

NOTE: If a child is referred because of an identified risk factor, examinations should still be performed and if instability is detected urgent referral and assessment is required.

Referral Pathway

Nurses should inform parents about DDH and obtain their consent for examination and referral if required.

Nurses are required to refer infants with an identified risk factor for DDH and/or an abnormal physical examination for ultrasound examination if this service is available to them. Infants should be referred immediately to Specialist Paediatric Orthopaedic Services if ultrasound services are not available or if ultrasound results are positive. Nurses should continue with routine screening if the ultrasound results are negative (see Appendix 2).

Nurses should inform the infant's General Practitioner (GP) that they have made a referral in relation to DDH and the reason for this. This should be done within two working days of referral. Nurses should keep GPs informed about progress regarding DDH referrals made by Nurses.

Some local protocols require that referrals relating to DDH are made by the infant's GP. In this case, Nurses will inform the GP of their concerns in writing and request that the GP makes a DDH referral.

Nurses should complete Child Health System (CHS) documentation (referred to as the SOTRN form) so that examinations and referrals are recorded on CHS. A copy of this documentation should be sent to the GP.

NOTE

If a child is 6 months or older at presentation it will be more expedient to discuss with the GP to arrange for an x-ray locally.

Clinical Examination

Clinical examination for DDH relies on four tests:

1. Ortolani's test
2. Barlow's test
3. Limitation of Abduction
4. Leg length discrepancy

Barlow's and Ortolani's tests are particularly useful as it is easier to detect instability in neonate and young infants.

After 6 weeks, a dislocation is more likely to be established and more difficult to reduce so the leg length discrepancy and increasing tightness of the adductor muscles are more likely to be evident.

All four tests should be carried out on every child (see Appendix 2).

Asymmetric skin creases in isolation are not indicative of pathology as many otherwise normal children have differences in the creases. If clinical examination is otherwise normal, i.e. no restriction of abduction at the hip, equal limb lengths, negative Barlow's or Ortolani's tests, onward referral is not required.

The tests for instability rely on the detection of abnormal movement rather than the production of sound. On occasions there may be an audible component to the tests but the vast majority of clicks are innocent. Indeed, most clicks arise from the knees. An isolated click with an otherwise normal exam does not require referral.

With bilateral dislocations there is no normal hip for comparison. However, instability or limitation of abduction may be demonstrated.

Appendix 1: DDH Referral Pathway

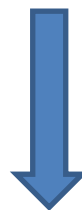
All babies should have a clinical examination of their hips



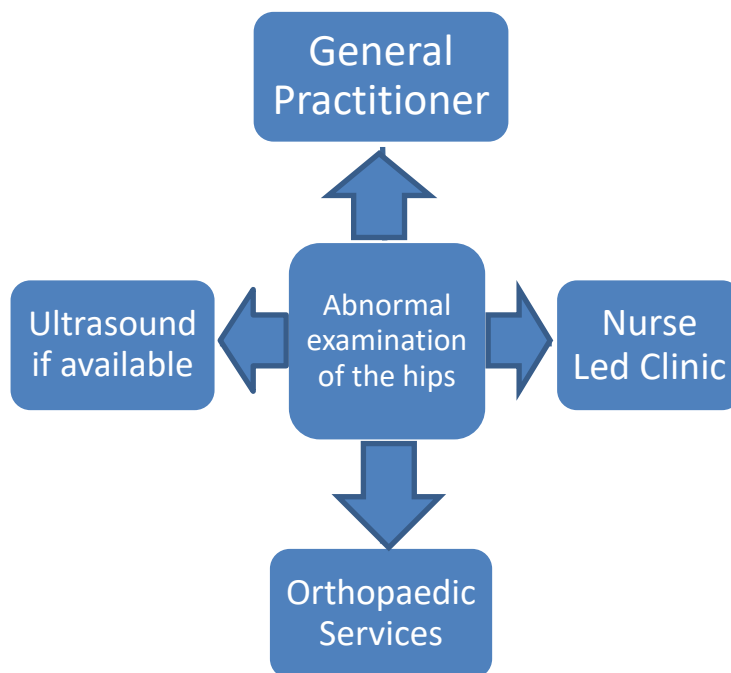
If Risk Factors for DDH Identified

OR

There has been an Abnormal Examination of Hips



Refer as per individual Health and Social Care Trust Protocol to:



r

NOTE: Health Visitors/Nurses will adhere to local Trust protocol and make a direct referral for specialist assessment or refer via the GP service. The Regional Orthopaedic service monitor delays in assessment and treatment to ensure that all children are treated promptly and equitably

Appendix 2:

Guidelines for Clinical Examination of Hips to detect DDH

- Prior to the examination of the infant, ensure a warm environment, a firm surface and a contented baby.
- The infant should be undressed from the waist downwards and the nappy removed.
- The examiner's hands should be warm, the examination gentle and the baby relaxed.
- The infant should lie on his/her back with legs towards the examiner and the hips adducted and fully flexed.
- The hips should be tested for instability one at a time.

Ortolani's Test

Ortolani's test is based on an attempt to reduce a dislocated hip. The examiner places their hands on the infant's thighs with the knee between the thumb and the extended index and ring fingers. The knee is gently abducted away from the midline exerting gentle upward pressure with the fingertip on the greater trochanter at the upper outer aspect of the thigh. If the dislocated hip reduces towards the socket the examiner will have a sensation of the femoral head translating or moving forwards. Ortolani described this sensation as a *skid*.

Barlow's Test

Barlow's test is based on an attempt to dislocate an unstable hip from its socket. With the knee cupped between the thumb and fingers and the hip flexed, the examiner pushes gently down on the knee whilst moving it medially trying to detect movement backwards of the hip from its socket. This movement is sometimes described as *pistoning*.

Leg Length Discrepancy

Infants before walking age cannot fully straighten out their hips. This is because of the flexed position of the legs in the womb. The examiner must assess for differences between the lengths of legs with the hips flexed.

The examiner needs to take care that the pelvis is flat against the examination surface and look for a difference of the prominence of the knees.



Limitation of Abduction

Hip abduction is tested by moving the thighs away from the midline with the hips flexed. Limitation of abduction is defined as less than 60 degrees of abduction of a hip or asymmetry of abduction of greater than 20 degrees.

Review of Guidance

This guidance will be reviewed in September 2028, or sooner if deemed to be required.

REFERENCES

1. Child Health Governance Committee_Regional Guidelines for Developmental Dysplasia of the Hip (DDH) Referral_V2_November 2020
2. Department of Health, Social Services, and Public Safety. Healthy Child Healthy Future. Belfast: DHSSPS, May 2010.
3. Guidance Newborn and infant physical examination (NIPE) screening programme handbook. Updated 27 August 2019 Public Health England
4. Public Health England, Newborn and Infant Physical Examination Screening Programme Standards 2016/17 Publication Date: April 2016
5. Routine postnatal care of women and their babies. National Institute for Health and Clinical Excellence, Clinical guideline ng194, 20 April 2021. <http://www.nice.org.uk/guidance/ng194>
6. UK NSC policy on developmental dislocation of the hip screening in newborns. <http://www.screening.nhs.uk/hipdislocation>
7. <http://newbornphysical.screening.nhs.uk/cms.php?folder=2380>