

## Management in Hospital of Term Breech Presentation

<b>For use in:</b>	Maternity Services (including external cephalic version counselling clinic)
<b>By:</b>	Obstetricians and Midwives
<b>For:</b>	Management of breech presentation at term
<b>Division responsible for document:</b>	Women and Children's
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<b>Name and job title of document author:</b>	Chloe Jolly (ST2 Obstetrics & Gynaecology) Paul Timmons (ST7 Obstetrics & Gynaecology) Daisy Nirmal (Consultant Obstetrician & Gynaecologist)
<b>Name of document author's Line Manager:</b>	Beth Gibson
<b>Job title of author's Line Manager:</b>	Consultant Obstetrician
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**A Clinical Guideline recommended**

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## Quick reference guideline

- For patients with a breech presentation at term (not 'unstable lie' or any other non-cephalic presentation)
- For use by community midwives (CMW) and hospital doctors

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Version Number	Date of Update	Change Description	Author
5	20/09/2022	Updated process for referral from CMW More Birth Choices clinic Figures re risks added	Chloe Jolly

### Version and Document Control

### Abbreviations used in this Guideline

ANC	Antenatal clinic
BMI	Body mass index
CMW	Community Midwife
CS	Caesarean Section
ECV	External Cephalic Version
MMAU	MacLeod Maternity Assessment Unit
s/c	subcutaneous
USS	Ultrasound Scan

### Objective

The purpose of this guideline is to aid obstetric and midwifery staff in supporting women diagnosed with a breech-presenting fetus at term. It seeks to achieve this through standardisation of both the counselling and management options offered to such women.

### Rationale

The management of term breech presentation is a common obstetric conundrum. Perinatal morbidity and mortality associated with breech presentation is increased when compared with cephalic presentation irrespective of mode of birth. There exists therefore a need for all staff involved in the care of women with a breech-presenting fetus at term to have a comprehensive understanding of these risks and the measures

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which might be taken to minimise them in order to support informed decision making around numerous aspects of both antenatal and intrapartum care.

### Background

The incidence of breech presentation at term is approximately 3-4% in the UK. Recognised risk factors which increase the likelihood of a breech-presenting fetus include:

- Nulliparity
- Caucasian ethnicity
- Congenital uterine malformation (e.g. bicornuate uterus)
- Multiple uterine fibroids
- Raised maternal BMI
- Oligo- and poly- hydramnios
- Small for gestational age
- Placenta praevia

The optimum mode of delivery of the breech-presenting fetus has been the subject of longstanding, contentious debate, though rates of vaginal breech birth in the UK have been subject to a steady fall since the mid-1990s and accounted for only 0.3% of all births in England and Wales in 2019-2020 (approx. 10% of all breech births). This decline was undoubtedly accelerated by the publication in 2000 in the *Lancet* of the *Term Breech Trial* – a landmark randomised control trial of over 2000 women at over 120 centres in 26 countries, comparing planned vaginal breech birth with planned caesarean birth at term – which reported a significant increase (5% vs. 1.6%) in perinatal/neonatal morbidity and mortality amongst infants born to women randomised to planned vaginal breech birth with no significant difference in maternal mortality or serious morbidity.

While procedural aspects of the *Term Breech Trial* and its findings have been subject to rigorous challenge in the 20+ years since its publication, the resultant fall in vaginal breech birth rates have led to a concurrent decline in the experience of midwives and obstetricians alike in supporting this mode of birth. It is entirely reasonable that openness about such a lack of experience should be a feature of any discussion around management options – many other studies citing greater safety for vaginal breech birth (often undertaken in countries where the practice is more widespread), rely on a degree of experience of the accoucheur not widely encountered in contemporary UK practice.

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## Classification of Breech Presentation

Numerous distinct subtypes of breech presentation are described, however terminology varies depending on source and confusion is compounded by the non-static nature of fetal position. Generally, the terms underlined should be preferred owing to their more descriptive nature:

- Extended or Frank Breech – account for 2/3 of all breech presentations. The buttocks are presenting with the hips fully flexed, knees extended and feet by the head.
- Flexed/Complete and Semi-Flexed/Incomplete Breech – account for the majority of the remaining 1/3. The buttocks are presenting though the fetus is in a ‘cross-legged’ position with both hips flexed and one or both knees flexed. One or both feet are positioned near, and present with, the buttocks
- Standing, Footling and Kneeling Breech – one or both hips are extended with one or both feet leading and the fetal pelvis non-engaged. More rarely, the knees may present where the hips are extended. Such breech variants are widely considered a contraindication to vaginal birth as there is no wide ‘presenting part’ to effectively dilate the cervix and the risk of cord prolapse is higher than with other subtypes.

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### Detection and Initial Assessment

Confirmation of fetal presentation by handheld ultrasound scanner should be offered to all women at the routine 36-week antenatal appointment (see trust SOP Use of handheld ultrasound scanners by Community Midwives at 36/40 appointment Standard Operating Procedure (SOP)).

If breech presentation is diagnosed, the woman should be given the RCOG patient information leaflet ‘Breech baby at the end of pregnancy’ and referred to ANC for a formal departmental ultrasound scan and review by an obstetrician in order to discuss options. Referral is made by phoning the ANC (01603 286795) or by e-mail (ancmidwives@nnuh.nhs.uk).

The majority of women with a breech-presenting fetus at term are presented with a choice of three options for management – external cephalic version (ECV),

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Author/s: C Jolly, P Timmons, D Nirmal

Author/s title: See front sheet

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caesarean section or vaginal breech birth. Each should be discussed (as appropriate) alongside an individualised risk-assessment inclusive of potential benefits, harms, and implications in order to support informed decision making. Where the woman requires or requests further time to make a decision, this should be respected and supported with a follow up appointment offered if required.

### External Cephalic Version

ECV involves the turning of a breech baby to cephalic by physical manipulation of the maternal abdomen and is often presented as the first-line management option for breech presentation at term because its attempt significantly increases the likelihood of a vaginal birth. ECV is a resource-light, cost-effective intervention which can be easily taught, expected to 'correct' approximately 50% of term breech presentations (est. 40% in primigravidae/60% in multigravidae) and is acceptable to most women.

Women should be offered an ECV unless there is contraindication to the procedure, of which few exist barring the presence of another absolute indication for caesarean birth – e.g. placental praevia. Though numerous algorithms have been developed in a bid to enable individualised prediction of success of ECV, none are of adequate predictive value to advocate their routine employment in clinical practice and while in theory such a tool may be of benefit in counselling women, a lower likelihood of success should not, in itself, preclude an attempt.

Factors known to increase and decrease the likelihood of successful ECV respectively are given in the table below.

<b><i>Increase Success</i></b>	<b><i>Decrease Success</i></b>
High provider experience	Nulliparity
Multiparity	Maternal obesity
Increased maternal age	Extended (frank) breech
Non-engagement of the breech	Footling breech
Pre-procedural tocolysis	
Low maternal body weight	
Posterior placenta	
Flexed (complete) breech	
Polyhydramnios	

Women considering ECV may be reassured that the risk of both fetal and maternal complication from the procedure is low, with no reported increases in rates of low APGAR scores, low umbilical vein pH, admission to neonatal unit or perinatal death

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amongst exposed fetuses. A degree of maternal discomfort is not uncommon though the procedure is generally well tolerated. Post-procedural fetal distress is described though the absolute risk of emergency caesarean section in the 24 hours following ECV is low (0.5%).

If ECV is the chosen management option, the midwife or doctor should contact MMAU to book an ECV. The on-call rota should be checked for the date the appointment is made, to ensure a consultant or senior registrar who performs ECV is on duty.

RCOG guidance recommends offering ECV from 36 weeks' gestation in primigravidae and from 37 weeks in multigravidae. ECV performed prior to these gestations was shown in a 2015 Cochrane review to be associated with increased risk of preterm birth and should not be recommended.

Pre-procedural tocolysis with 250 micrograms of terbutaline given subcutaneously around 10-15 minutes prior, is recommended unless there is a contraindication, or the woman declines.

ECV should only be undertaken where facility for recourse to immediate caesarean birth exists if required, though the routine pre-operative preparations for this (fasting, IV access etc.) are not necessary. Pre- and post-procedural fetal cardiotocography is recommended - an immediate, transient fetal bradycardia of <3 minutes duration is common though should prompt further monitoring prior to discharge.

A total of 4 attempts at version within a ten-minute period should be considered the upper limit and where a trainee is performing the procedure under supervision, latter attempts may be conducted by a more experienced operator.

Rhesus D negative women should be offered Anti-D immunoglobulin within 72 hours of ECV unless the fetus is also known to be Rhesus D negative and post-procedural Kleihaur testing to identify women who require additional anti-D is advised. Large, catastrophic feto-maternal haemorrhage following ECV is rare, though has been reported in case studies.

Following successful ECV, there is no reason women may not follow a low-risk pathway for labour and delivery assuming no other indications for high-risk obstetric care exist. Some studies have suggested increased rates of obstetric intervention in labour for such women when compared with spontaneous cephalic presentation, though this is inconsistently described and the explanation as to why, poorly defined.

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### Alternatives/Adjuncts to ECV

Women may enquire as to the opinions of clinical staff on adjunctive measures to encourage cephalic version. Generally, where performed or overseen by suitably trained personnel, the following strategies are not believed to be harmful and therefore may be utilised by women who wish to consider them, on the understanding that the evidence for each is limited at best:

- *Moxibustion* – ancient Chinese therapy involving the burning of dried mugwort over a specific acupuncture point (Bladder 67). It is hypothesised that this encourages production of placental oestrogens and prostaglandins which in turn stimulate uterine contractility and fetal activity. A 2012 Cochrane review highlighted the absence of high-quality trial data evaluating the efficacy of moxibustion, though acknowledged a reduction in non-vertex presentation, need for oxytocin and birth by caesarean section where it is combined with other techniques including acupuncture and postural management.
- *Postural management* – a further 2012 Cochrane review on the effectiveness of postural management strategies failed to demonstrate benefit in the reduction of non-vertex presentation or caesarean section rate though highlighted that the limited number of studies on the subject were of insufficient size to draw any definitive conclusion and highlighted a need for further research in this area.

### Caesarean Section for Breech Presentation

The majority of infants in a breech presentation at term will be delivered by caesarean section, either as a primary maternal choice or following unsuccessful ECV. While it is recognised that caesarean birth is likely to confer a reduction in the risk of fetal morbidity/mortality, it should not be overlooked that it remains major abdominal surgery with a risk of maternal morbidity, even when performed as an elective procedure. Women should accordingly be given an individualised assessment of both the short- and longer-term risks associated with caesarean birth inclusive of implications for their future reproductive/family planning intentions and counselled accordingly.

Confirmation of presentation by ultrasound immediately prior to surgery should be undertaken, as spontaneous reversion to cephalic occurs in around 8% of cases (though only 3-7% where ECV has been attempted and unsuccessful; rates of reversion to breech following successful ECV are similarly ~ 3%). It is good practice to discuss such an eventuality at the time of initial counselling and ensure a clear plan is documented in the event this should occur. Many women will have made extensive



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preparation around their date for caesarean birth and to continue with this may, at the time, be the most appealing choice, even though the indication no longer persists.

Similarly, advance discussion and documentation of the woman's wishes in the event of spontaneous labour prior to caesarean section is recommended.

In the absence of an indication to do so sooner, elective caesarean birth for breech presentation should be offered between 39-40 weeks' gestation.

### Vaginal Breech Birth

The RCOG Green Top Guideline on Management of Breech Presentation at Term recommends that women with a breech fetus who either decline ECV or in whom ECV is unsuccessful, receive unbiased counselling regarding the relative safety of both vaginal breech and caesarean section for mother and baby respectively.

The presence of a birth attendant experienced in vaginal breech birth is an essential criterion for offering it as an option though such experience is not formally defined by any national guideline or criteria. It should be recognised that given the aforementioned general reduction in such experience of clinical staff, it is impossible to guarantee that a suitably trained clinician will be on duty at the time of presentation and thus routine recommendation of vaginal breech birth as the primary birth modality cannot be supported.

Women who, after detailed counselling, express a strong preference for vaginal breech birth with an understanding of the risks should however be supported in their decision.

They should however be informed that a higher risk planned vaginal breech birth is expected both where there exist independent indications for caesarean section and in the following circumstances:

- Hyperextended neck on ultrasound
- Estimated fetal weight greater than 3.8 kg
- Estimated fetal weight <10<sup>th</sup> centile
- Footling presentation
- Evidence of antenatal fetal compromise

If vaginal breech delivery is planned, the following should be advised as routine during labour:

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1. Inform on-call consultant obstetrician. Please see Standard Operating Procedure for: Consultant Obstetrician Presence and Request for Attendance on Labour Ward
2. Continuous electronic fetal heart monitoring during labour and birth using an abdominal transducer (FSE is not recommended in vaginal breech birth)
3. Four hourly vaginal examinations should be performed by the senior registrar or senior midwife
4. Intravenous access should be established, and blood sent for FBC/G&S.
5. There is no evidence that an epidural is essential though is not contraindicated if this is the woman's wish.
6. Waterbirth is not recommended
7. Administer 40mgs Omeprazole BD
8. Oxytocin should not be used without prior discussion with the on-call consultant obstetrician
9. The anaesthetist and neonatologist (Bleep 0416) should be notified when the patient is approaching the second stage. The neonatologist must be present at the delivery, the anaesthetist aware and immediately available if required.
10. Care during labour and delivery should be by a birth attendant who has the greatest experience of performing vaginal breech birth. The birth must be directly supervised or conducted by, a consultant, or a senior registrar (or equivalent)
11. If the breech does not descend on to the perineum in the second stage a caesarean section should be performed.
12. Complete the vaginal breech delivery proforma (appendix 1)

## Undiagnosed Breech Presentation at Term in labour

Management of spontaneous labour in women with a breech-presenting fetus (irrespective of whether the diagnosis is known in advance or made at the time of presentation) will depend on several factors, including: the stage of labour; risk factors; skill of the team and the woman's wishes after appropriate counselling.

Women who present in the early stages of labour will generally be offered delivery by caesarean section. RCOG guidance however states that "women near or in active second stage of labour should not be routinely offered caesarean".

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Such women should be reviewed by the on-call senior registrar or above at the time of presentation.

### Training in Management of Breech Presentation

All clinical staff working in the antenatal/labour ward setting have a duty to ensure they are up to date with their annual mandatory PROMPT training which includes simulation training in vaginal breech birth.

### Clinical Audit Standards

The Maternity Services are committed to the philosophy of clinical audit, as part of its Clinical Governance programme. The standards contained in this clinical guideline will be subject to continuous audit, with multidisciplinary review of the audit results at one of the monthly departmental Clinic Governance meetings. The results will also be summarised and a list of recommendations formed into an action plan, with a commitment to re-audit within three years, resources permitting.

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Vaginal Breech Delivery Proforma				Patient Identifier Label	
Date		Time			
<i>dd/mm/yyyy</i>		<i>24 hours clock</i>			
Consultant					
Person completing form (Scribe)	<i>Print name</i>	<i>Signature</i>	<i>Designation</i>	<i>Date dd/mm/yyyy</i>	
Call for help	<i>Tick when actioned</i>	<i>Time actioned as appropriate 24 hour clock</i>			
Emergency bell activated	<input type="checkbox"/>				
2222 call	<input type="checkbox"/>				
Obstetric team called	<input type="checkbox"/>				
Neonatal team called	<input type="checkbox"/>				
Fetal Wellbeing	<i>Tick when actioned</i>	<i>Time actioned as appropriate 24 hour clock</i>			
CTG commenced	<input type="checkbox"/>				
Maternal position	<i>Tick and detail as appropriate</i>	<i>Time actioned as appropriate 24 hour clock</i>			
Lithotomy	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>Other detail</i>				
Progress	<i>Tick as appropriate</i>	<b>'Think hands off the breech'</b>			
Full dilatation confirmed	<input type="checkbox"/>				
Onset of active pushing	<input type="checkbox"/>				
Consider episiotomy	<input type="checkbox"/>				
Manoeuvres	<i>Tick as appropriate</i>	<i>Time actioned as appropriate 24 hour clock</i>			
Delivery of buttocks	<input type="checkbox"/>				
Legs (popliteal pressure)	<input type="checkbox"/>				
Scapula visible	<input type="checkbox"/>				
Arms (Lovsetts)	<input type="checkbox"/>				
Nape of neck	<input type="checkbox"/>				
Head (MSV/forceps)	<input type="checkbox"/>				
Birth	<i>Add time 24 hour clock</i>				
Time of birth					
Neonatal Condition	<i>Tick as appropriate</i>	<i>Time actioned as appropriate 24 hour clock</i>			
Apgars @	1 min:      5 min:      10 min:				
Resuscitation	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>see separate resus proforma</i>				
Attach cord gas results on reverse	<input type="checkbox"/>				
Incident form	<i>Tick as appropriate</i>	<i>Time actioned as appropriate 24 hour clock</i>			
Incident form completed	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If yes - Datix reference</i>				
Persons present during incident	<i>Print name</i>	<i>Designation</i>			

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<b>Vaginal Breech Delivery Proforma</b>	<i>Patient Identifier Label</i>		
<b>Date</b> <i>dd/mm/yyyy</i>		<b>Time</b> <i>24 hours clock</i>	
<b>Consultant</b>			

<b>Person completing form (Scribe)</b>	<i>Print name</i>	<i>Signature</i>	<i>Designation</i>	<i>Date dd/mm/yyyy</i>
<b>Personnel present at diagnosis</b>	<i>Print name</i>	<i>Designation</i>		

Appendix 1