
MATERNITY UNIT

GUIDELINE: BREECH BIRTH

SCOPE: All midwives and obstetricians working in maternity

AUTHORS: Midwife Educator/Quality Coordinator and HOD Obstetrics.

PURPOSE: To provide health professionals with clear guidance on the options available to women with a fetus presenting in the breech position and the correct management of breech birth.

DEFINITIONS:

There are generally three classifications of breech presentation:

- Extended/Frank (hips flexed, legs extended) 65%
- Flexed/Complete (hips and knees flexed, legs not below fetal buttocks) 10%
- Footling (one or both feet presenting) 25%
- ECV – External cephalic version
- IUGR – Intrauterine fetal growth restriction
- IUFD – Intrauterine fetal death

GUIDELINE:

Breech presentation occurs in 3-4% of term pregnancies, and 15% of pregnancies between 29 and 32 weeks gestation. 25% of breech presentations will undergo spontaneous version after 35 weeks gestation, the likelihood of spontaneous version decreases with increasing gestational age. Breech presentations are usually diagnosed clinically.

There should be suspicion of a breech presentation if:

- On abdominal palpation the presenting part is irregular/not ballotable
- Head is not felt in the pelvis on vaginal examination
- Fetal heart rate is recorded high on the abdomen
- Thick meconium is present at the time of SROM
- In the event of cord prolapse

Causative factors include:

- Polyhydramnios
- Oligohydramnios
- High parity
- Multiple pregnancy
- Prematurity
- Uterine anomalies (eg. Bicornuate uterus, fibroids, pelvic tumour)
- Fetal anomalies (eg. Hydrocephalus, anencephaly, fetal head/neck tumours, fetal neuromuscular disorders)
- Placental anomalies (eg. Placenta praevia)
- Previous term breech presentation

Preterm Breech (< 37 weeks)

Breech presentation is a normal finding in the preterm pregnancy. No further management in the uncomplicated pregnancy is required until 37 completed weeks of pregnancy are reached. If a woman presents in preterm labour with breech presentation it is reasonable to consider vaginal birth if:

- Vaginal birth is imminent
- Survival and least morbidity to the fetus is assessed to be unchanged by mode of birth
- Maternal morbidity of caesarean section is assessed to be too great for the potential fetal advantages.

If elective preterm birth is indicated the mode of birth is dictated by clinical circumstances, for example severe IUGR or pre-eclampsia, elective caesarean section may be most appropriate, versus IUFD or severe fetal anomaly, where vaginal birth may be most appropriate.

The optimal mode of birth for preterm breech has not been fully evaluated in clinical trials. The Royal College guidelines recommend against vaginal breech deliveries with estimated fetal weights <2000 grams while ACOG recommends a higher cut off of 2500 grams.

Term Breech (≥ 37 weeks)

If a woman presents at 37 weeks gestation or greater with a breech presentation, her LMC should recommend a consultation with a specialist obstetrician.

If possible an ultrasound scan should be arranged and performed prior to the consultation to confirm the presentation and exclude possible causative factors. This information is required before the woman can be counselled enabling her to make an informed decision.

A specialist obstetrician should counsel the woman with regards to ECV, planned vaginal breech birth and planned caesarean section with the LMC present.

External Cephalic Version (ECV)

Current evidence suggests attempting ECV, in those women without contraindications, reduces the number of breech presentations in labour and the number of caesarean sections for breech presentation with no increase in perinatal, fetal or maternal morbidity. Please refer to ECV guideline.

Elective Caesarean Birth versus Vaginal Breech Birth

The woman should be informed of the benefits and risks for both current and future pregnancies, of planned caesarean birth versus planned vaginal breech birth at term to enable informed decision making. She should be informed that different studies have reached different conclusions regarding the safety of breech birth.

The Term Breech Trial (TBT) found that compared to vaginal birth planned caesarean section was associated with a decrease in the short term perinatal and neonatal morbidity and mortality. There was no difference in the outcome between the two groups at the two year

follow up. However, the selection criteria for vaginal breech birth, the trial compliance, and analysis in the TBT have since been questioned. A sub analysis did suggest that the benefits of delivery by caesarean section were more significant in countries with a low perinatal mortality rate.

The PREMODA study (2006) assessed French and Belgian practices in breech presentation including their consequences for mother and baby. The results indicated that with specific selection criteria, there was no significant difference between the 2 groups in perinatal mortality, neonatal mortality, and severe neonatal mortality. The factors associated with adverse perinatal outcomes included gestational age <39 weeks, birthweight <10th percentile, and annual number of maternity unit births <1500.

A more recent study from the Netherlands studied 60,000 breech births between 2000 and 2007 using both midwifery and obstetrical data. The rate of planned C-sections rose from 14% in 1999 to 60% in 2007. In the group that had planned C-sections, fewer babies died during birth or within the first 28 days of life as time went on. The death rate fell from more than 10 babies of every 10,000 in the earlier period to seven babies in 10,000 in the later period. Low Apgar scores and injuries to the baby during birth decreased as well.

It is important to recognize that the vast majority of children born breech do well but for the safety of mother and baby important criteria and guidelines need to be followed.

In 2006, the American College of Obstetricians and Gynaecologists (ACOG) recommended that planned vaginal breech birth may be acceptable under certain circumstances. ACOG recommended that the decision regarding mode of delivery should depend on the experience of the health care provider, with caesarean delivery being the preferred mode for most physicians because of the diminishing expertise in vaginal breech delivery. However, planned vaginal delivery of a term singleton breech may be reasonable under hospital specific protocol guidelines for both eligibility and labour management. The woman should be informed that the risk of perinatal or neonatal mortality or short term serious neonatal morbidity might be higher than if a caesarean delivery is planned, and the patient's informed consent should be documented.

RANZCOG reiterated that a woman should be counselled that planned caesarean section carries a reduced perinatal mortality and early neonatal morbidity for babies with a breech presentation at term compared with planned vaginal birth. However planned c- section carries a small increase in serious immediate complications for the woman compared with planned vaginal birth. Also the outcome on future pregnancies for the woman and their babies is uncertain. RANZCOG advised dorsal or lithotomy position as there is most experience with this position. RANZCOG also emphasized that a practitioner skilled in the conduct of labour with breech presentation and vaginal breech birth should be present at all vaginal breech births, and such births should be in a hospital with facilities for emergency caesarean section.

RCOG (December 2006) advises careful counselling of the woman and recommends also that vaginal breech birth should take place in a hospital with facilities for emergency caesarean section. A practitioner skilled in the conduct of labour with breech presentation and vaginal birth should be present at all vaginal births.

Criteria for Planned Vaginal Breech Birth

- No contraindication to vaginal birth (eg placenta praevia, compromised fetus)
- Pelvis is clinically adequate (clinical judgment is adequate, no role for routine pelvimetry)
- Frank or complete breech presentation
- Estimated fetal weight (EFW) >10th % or <75th% on customised growth chart or >2500g and < 4000g if growth chart not available
- Normal liquor (>=37 weeks)
- Neck is not hyperextended in labour (by ultrasound)
- No previous caesarean section
- Emergency caesarean facilities are available, recognizing that the recommended immediately available emergency caesarean is rarely available at Gisborne Hospital
- Planned breech vaginal birth should be offered only if an appropriately prepared and experienced clinician will be available throughout active labour and birth. This clinician may be either a midwife or obstetrician.

NB. Diagnosis of breech for the first time during labour is not a contraindication for vaginal breech birth.

Induction/Augmentation

Opinion on induction of labour varies. It is preferable that labour be spontaneous. Individual cases must be discussed with an obstetrician. Augmentation of labour is not recommended.

Types of Breech Birth

- Spontaneous
- Assisted (with recognised manoeuvres)
- Total breech extraction
 - High rate of birth injury (25%)
 - Mortality (10%) with singletons

Management of Labour and Birth

First Stage

- Continuous electronic fetal monitoring (EFM) by cardiotocography (CTG) monitoring is recommended
- Women have the same choice of analgesia as those having a cephalic birth
- Adequate progress is required to continue with labour
- A scalp electrode can be applied to the presenting breech

Second Stage

- Use the breech proforma (Appendix One)
- Refer to Appendix Two if any manoeuvres are required to assist the breech birth
- Continuous EFM by CTG monitoring is recommended
- Confirm full dilatation and position of breech

- Caesarean section should be considered if there is delay in descent at any stage in second stage. Passive descent is appropriate with epidural anaesthesia and no maternal urge to push
- Optimal maternal position for birth will depend on the experience/preference of the birth attendant
- Episiotomy should be considered to facilitate birth when indicated. There is no clear evidence that selective episiotomy should differ from cephalic birth. The episiotomy should not be performed until the fetal anus is birthed
- 'Hands off the breech' approach is recommended
- Spontaneous birth of the trunk and limbs by maternal effort should be awaited as breech extraction can cause extension of the arms and head - breech extraction should not be routinely used
- If there is delay in birth, advanced manoeuvres can be undertaken by suitably trained practitioners to aid birth dependent on the cause for example Lovsett's manoeuvre and Mauriceau-Smellie-Veit manoeuvre (refer to Appendix Two)
- If an adequately trained obstetrician is available he/she should be present for the birth or within the unit if the woman does not consent to the obstetrician being present in the room prior to the birth. If there is no obstetrician on duty who is proficient in breech vaginal delivery they should be called only in the event of emergency to offer assistance to the extent of their experience
- A paediatrician should be present at the birth or within the unit at the request of the midwife/obstetrician
- Update the NNU
- The anaesthetist and theatre crew may be requested to be present on site and a theatre room made available if the obstetrician has become involved in the woman's care. This will be at the discretion of the obstetrician.

Entrapment of the head

This is an extreme emergency. Ensure sufficient midwifery, obstetric, and anaesthetic support available. Prepare for immediate transfer to theatre.

- A vaginal examination should be undertaken to determine if a rim of cervix is still present which may prevent the head from descent or birth. Once recognised the cervix can usually be pushed over the head.
- If the fetal head has entered the pelvis, perform Mauriceau-Smellie-Viet manoeuvre combined with suprapubic pressure from an assistant in a direction that maintains descent and flexion of the head.
- Rotate the fetal body to a lateral position and apply suprapubic pressure to flex the fetal head.
- Apply traction then rotate the fetal back to sacroanterior position and birth after coming head by forceps (clinician's preference).

If above unsuccessful consider alternative manoeuvres:

- Reassess cervical dilatation. If cervix is not fully dilated (especially if preterm) consider incising the cervix at 2 and 10 o'clock positions.
- Symphysiotomy is not available at Gisborne Hospital due to lack of surgeon experience and expertise.
- Alternatively, a caesarean section may be performed in operating theatre if the baby is still alive. It is necessary for the baby to be pushed from below and the use of a vacuum has been described to assist.

ASSOCIATED DOCUMENTS:

CDHB (2014) Breech Birth

Hauora Tairāwhiti- Maternity External Cephalic (ECV) guideline

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EVALUATION: To be periodically audited from the use of and completion of the breech proforma

Authorised By (HOD Obstetrics)

Authorised By (Director of Midwifery / Clinical Midwife Manager)

Date of Approval: December 2020

Next Review Date: December 2023

APPENDIX ONE
VAGINAL BREECH BIRTH PROFORMA

Attach woman ID label here

| | |
|---|--|
| Date and Time of diagnosis | |
| Planned or undiagnosed emergency breech | Planned Yes No Emergency Yes No |
| Maternal Age | Gravida & Parity BMI |
| Gestation | Singleton or Twin pregnancy (please circle) |
| If twin birth, which is breech | 1st twin 2nd twin |
| Labour and birth times | Onset of active labour: Onset of second stage: Birth of breech infant: |
| Type of breech presentation | Extended Flexed Footling (please circle) |
| Meconium present | Yes No |
| Emergency call bell used | Yes No Time |
| 777 call | Yes No Time |
| Arrival time & name of personnel attending | Midwives Time of arrival Obstetrician Time of arrival Paediatrician Time of arrival Other Time of arrival |
| Continuous fetal monitoring commenced | Yes No Time If No, give reason |
| Type of breech birth | Spontaneous Assisted Extraction (please circle) |
| Woman's position (Please circle) | On all fours Standing In lithotomy Other |
| Manoeuvres performed & time | |
| Legs fully delivered | Spontaneous Assisted (please circle) Time: |
| Nuchal arms | Yes No |
| Lovsetts | Yes No Time |
| Mauriceau Smellie Veit | Yes No Time |
| Forceps applied to head | Yes No Time |
| Time of completed birth | |
| Episiotomy | Yes No |
| Apgar score | @1 = @5 = @10 = |
| Birth weight | G BWC |
| Umbilical cord blood gas result | Arterial pH Venous pH Base excess Base excess |
| Paediatric referral made - date | |
| Any trauma from the birth to mother or baby? | |

APPENDIX TWO

Manoeuvres for assisted vaginal breech birth

Remember - Handle the baby minimally and only over bony prominences

Release of the legs

- Allow spontaneous birth of limbs if possible
- May need to release legs by pressure in the popliteal fossae
- Consider correcting buttocks to sacroanterior
- Avoid handling umbilical cord
- Allow spontaneous descent of body until scapulae visible
- **Pulling on the infant's trunk can cause a nuchal arm and therefore should be avoided**



Release of the arms - Løvsett's manoeuvre

- If arms not spontaneously released, use Løvsett's
- Gently hold baby over bony prominences of hips and sacrum
- Rotate so one arm is uppermost
- Place index finger over baby's shoulder and follow down arm to antecubital fossa
- Flex arm to release it
- Keeping back uppermost, rotate baby 180° so that second arm is now uppermost
- Release second arm as before
- After release of the arms, support the baby until the nape of the neck becomes visible, using the weight of the baby to encourage flexion of the head.



Mauriceau-Smellie Veit manoeuvre

- Rest the baby body over the flexor surface of the accoucheur's forearm during this manoeuvre
- The first and third finger of the accoucheur's hand should be placed on the cheekbones (no longer in the mouth).
- With the other hand, apply pressure to the occiput with the middle finger and place the other finger simultaneously on the fetal shoulders to promote flexion and deliver the head following the curve of the pelvis to deliver the head gently.



Nuchal Arms

- If nuchal arm occurs with one or both arms, the fetal face should be gently turned towards the symphysis pubis, thus releasing the tension of the arm around the back of the neck.
- Nuchal arms can then be released using the Løvsett's manoeuvre and running the accoucheur's fingers along the fetal arm to the antecubital fossa, applying pressure and flexing the arm before releasing.

