VAGINAL BREECH DELIVERY

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BREECH DELIVERY

- Breech
  - Is the position of a fetus in which the buttocks, legs or feet present at the maternal pelvic outlet.
  - It is the commonest of the abnormal presentations (3-4 % at term)
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The breech presentation has been classified as:

- Footling
- Complete
- Frank
Footling Breech – one or both hips or knees are extended with one or both feet presenting
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- Complete Breech – Hips and knees flexed
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- Frank Breech – Hips are flexed and the knees extend over the anterior part of the body
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Diagnosed by:

- Palpation
- Auscultation: position of the fetal heart
- Vaginal examination
- Ultrasound
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Risk Factors for Breech Presentation

- Prematurity
- Polyhydramnios
- Oligohydramnios
- Uterine or pelvic abnormalities
- Fetal abnormalities (e.g. Downs Syndrome)
- Breech presentation in prior pregnancy
- IUD
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Vaginal breech deliveries were previously the norm until 1959 when Wright proposed that all breech presentations should be delivered abdominally to reduce perinatal morbidity and mortality.
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Consequently since this date:

- The rate of Caesarean birth for the term breech has increased dramatically.

- The skill and training in vaginal breech deliveries is being lost.
In an effort to address the question of whether planned vaginal delivery or elective caesarean section is the optimal mode of delivery for the selected breech at term, a long-awaited multi-centre randomized controlled trial was undertaken.
The Term Breech Trial showed women who planned a vaginal delivery had:

- A notable increase in perinatal mortality and morbidity
- 1% increased risk of perinatal death
- 2.4% increased risk of serious neonatal morbidity
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This study provided clear evidence that women with a breech presentation at term who plan a caesarean section will have a baby less likely to die or have a serious outcome.
Caesarean section is, however, associated with a small increased risk of maternal morbidity.
Therefore, they argue that a planned caesarean section with its increased maternal morbidity should not be the first or only obstetric intervention for the term breech.
They demonstrated that external cephalic version for breech at term will reduce non-cephalic births by nearly 60%
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The conversion of a breech to a cephalic presentation by external manipulation – was subject to rigorous scientific appraisal in 6 RCT involving over 600 women.
The results are consistent and clear - ECV should be offered to all women with a uncomplicated breech presentation at term
EXTERNAL CEPHALIC VERSION

A. Mobilization of the breech

B. Manual forward rotation using both hands, one to push the breech and the other to guide the vertex

C. Completion of forward roll

D. Backward roll
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Unfortunately some women are not suitable for ECV

- Multiple pregnancy
- Vaginal Bleeding
- Low lying placenta
- Suspected IUGR
- Amniotic fluid abnormalities
- Uterine malformation
- Maternal cardiac disease
- Pregnancy-induced hypertension
- Major fetal anomaly
- Premature rupture of the membranes
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- Complications relating to ECV
  - Premature Labour
  - Premature Rupture of the Membranes
  - A small blood loss for mother and or baby
  - Fetal Distress leading to emergency caesarean section
  - The baby may turn back to breech after ECV has been done
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ECV Procedure

- On delivery suite
- Scan to confirm breech and position of fetal back
- CTG will be performed before and after procedure
- Tocolytic’s may be used
  - Terbutaline 250ug sc 15 min prior to procedure
- If rhesus neg anti D given and kleihauer performed
- If the ECV was successful they can go home, follow up in one week
- If the ECV was unsuccessful then a vaginal breech delivery may be considered
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- What is the success rate?

- The success rate depends on several factors
  - How close they are to the due date
  - How much fluid there is around the baby
  - How many pregnancies they have had previously
  - How much the baby weighs
  - How the baby is positioned

Average 65%
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Although the results from the breech trial concluded that a policy of planned caesarean section is substantially better for the singleton fetus in the breech presentation at term.
They suggested that rather than abandoning breech delivery altogether, standards of care should be tightened with breech delivery being allowed in selected cases.
Furthermore, consideration should be given to those women that choose to have normal delivery and those women that arrive on delivery suite fully dilated.
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Types of Vaginal Breech Delivery
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1. Spontaneous Breech Delivery
2. Total Breech Extraction
3. Assisted Breech Delivery

- We will discuss each one in turn
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- Spontaneous Breech Delivery

  - No traction or manipulation of the infant is used. This occurs predominantly in very preterm deliveries.
Total Breech Extraction:

- The fetal feet are grasped, and the entire fetus is extracted.
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- Should be used only for a non-cephalic second twin

- Should **not** be used for the single fetus because the cervix may not be adequately dilated to allow passage of the fetal head
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- Total breech extraction for the singleton breech is associated with a birth injury rate of 25% and a mortality rate of approximately 10%.
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Assisted Breech Delivery:

This is the most common type of vaginal breech delivery. The infant is allowed to spontaneously deliver up to the umbilicus, and then maneuvers are initiated to assist in the delivery of the remainder of the body, arms, and head.
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Techniques and Tips for Assisted Vaginal Delivery
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- The success of the breech birth is highly dependent on the skill and expertise of the clinician
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However, before considering a normal breech delivery you must ensure that all conditions for a safe vaginal breech delivery are met.
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- In hospital with facilities for CS
- Adequate clinical pelvimetry
- The fetus is not too large
- No previous caesarean section for CPD
- Flexed head
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- Perform all manoeuvres gently and without undue force.

- Leave the fetal membranes intact as long as possible to act as a dilating wedge and to prevent overt cord prolapse.

- If the membranes rupture examine the woman immediately to exclude cord prolapse.
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- Oxytocin induction and augmentation are controversial.

- Results from studies indicate that nonphysiologic forceful contractions could result in an incompletely dilated cervix and an entrapped head.
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- If the perineum is very tight, consider an episiotomy to prevent soft tissue dystocia.

- Meconium is common with breech labour and is not a sign of fetal distress if the fetal heart rate is normal.
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- The woman should not push until the cervix is fully dilated.
- Full dilatation should be confirmed by vaginal examination.
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- We should also note that this presentation creates a mechanical problem in delivery of the fetus
  - The buttocks and feet do not provide an effective wedge to block and dilate the cervix
  - The umbilical cord may prolapse
  - The head may get trapped during delivery
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Prolapsed umbilical cord

- Fetus
- Uterus
- Umbilical cord
- Cervix
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TECHNIQUE
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- Call for:
  - Experienced midwife
  - Obstetric registrar
  - Neonatal registrar
  - Anaesthetic registrar
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- Start IV infusion (Hartman's / Saline)
- Obtain blood for FBC, Group and Save
Once the buttocks have entered the vagina tell the woman she can bear down with the contractions.
Maternal expulsion delivers the frank breech from the lower birth canal, while the contractile forces of the uterus maintain flexion of the fetal head.
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- Inappropriate traction on the breech at this point may lead to extension of the fetal head, or entrapment of an arm behind the head (nuchal arm).
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Let the buttocks deliver until the lower back and then the shoulder blades are seen.

Gently hold the buttocks in one hand, but do not pull.

If the legs do not deliver spontaneously, deliver one leg at a time:
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- Do this by splinting the thigh whilst flexing and abducting the hip.
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- Note the lateral rotation of the thighs on the hips, to deliver the legs. Avoid the instinctive manoeuvre of hooking the thigh down, thus bending the knee in the wrong direction.
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At this point the breech should hang downwards, while maternal efforts expel the infant until the lower border of the scapula is visible below the pubic arch.
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- Wrap the baby in a towel and hold the baby by the hips.

- Do not hold the baby by the flanks or abdomen as this may cause kidney or liver damage.

- Gentle support by the clinician ensures the back does not rotate posteriorly.
For delivery of the shoulders and arms, the clinicians thumbs overlie the sacrum with the fingers around the iliac crests, so that the hands cradle the fetal pelvis.
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- Allow the arms to disengage spontaneously one by one.

- Only assist if necessary.
If the fetal arms have not become extended, the clinician passes the index and middle fingers over the shoulder, and sweeps the left arm medially across the chest, thus delivering it. Repeat for the right arm.
If the fetal arms have extended, the clinician applies Lovset's manoeuvre.
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- The clinician rotates the body with the back uppermost, 180 degrees. The posterior shoulder has been rotated anteriorly, and lies beneath the symphysis.

- The clinician hooks the arm downwards, then rotates the body back 180 degrees, to deliver the other arm in the same manner.
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- If the baby’s body cannot be turned to deliver the arm that is anterior first, deliver the shoulder that is posterior.

- Hold and lift the baby up by the ankles.
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- Move the baby’s chest towards the woman’s inner leg. The shoulder that is posterior should deliver.
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- Lay the baby back down by the ankles. The shoulder that is anterior should now deliver
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- Gentle elevation of the fetal trunk allows the clinician to access to the fetal airway. You must avoid over-extension, because of the risk of fetal cervical injury, and hyperextension of the fetal head.
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- Deliver the head by the Mauriceau Smellie Veit manoeuvre:

- Lay the baby face down with the length of its body over your hand and arm

- Place the first and third fingers of this hand on the baby’s cheekbones and place the second finger beneath the chin, ease the cheeks down and flex the head
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- Use the other hand to grasp the baby’s shoulders

- With two fingers of this hand, gently flex the baby’s head towards the chest, while applying downward pressure on the cheeks to bring the baby’s head down until the hairline is visible
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- Pull gently to deliver the head
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Careful case selection can avoid most obstetrical emergencies.

However, even with optimum management of breech labour, the fetal head may become trapped.
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- Catheterize the bladder.
- Have an assistant hold the baby up towards the mother's abdomen.
- Apply forceps.
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Use the forceps to flex the baby’s head and deliver the head.
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- If unable to use forceps, apply firm pressure above the mother’s pubic bone to flex the baby’s head and push it through the pelvis.
Clamp and cut the cord early and continue with active management of the 3rd stage
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Complications of a Vaginal Breech:

- Cord prolapse
- Birth trauma as a result of extended arm or head, incomplete dilatation of the cervix or CPD
- Asphyxia from cord prolapse, cord compression, placental detachment or arrested head
- Damage to abdominal organs
- Broken neck
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THANK YOU – ANY QUESTIONS