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# **Breech birth**

July, 2022

A breech birth is the delivery of a baby from a breech presentation, where the fetus enters the birth canal with the buttocks or feet first.

The incidence of breech presentation is around 3-4% at term and around 10% at 30 weeks. The major risk factors are multiple pregnancy and pre-term labour. Breech birth has a higher risk of maternal and fetal morbidity and mortality compared to a normal cephalic delivery.<sup>[1]</sup>

#### There are four main presentations for breech delivery:<sup>[1]</sup>

#### *Complete breech* Frank breech The fetus's buttocks presents first, Here the hips and knees with the legs flexed at the hip and are flexed so that the extended at the knees, placing fetus is sitting cross-legged, the feet near the ears. Most breech babies, with feet beside (65-70%) are in the the buttocks. Frank breech position. Kneeling breech Footling breech One or both feet presents first, with The fetus is in a kneeling position, the buttocks at a higher position. with one or both legs extended This is rare at term, but relatively at the hips and flexed at the common with premature knees. This is extremely rare babies. Here the hips and and often grouped with knees are flexed so that footling to form the the fetus is sitting category 'incomplete breech'. cross-legged, with feet Increased risk of prolapsed beside the buttocks. cord with a kneeling breech. Increased risk of prolapsed cord with a footling breech.

The primary focus of pre-hospital management is the rapid recognition of a breech birth and limiting manipulation of the neonate until required, being gentle but timely with the necessary techniques and preparing for neonatal resuscitation.<sup>[2]</sup>

#### **Clinical presentation includes:**

#### Signs of imminent delivery:

- increasing frequency and severity of contractions with an urge to push
- blood stained show although this may
- not be an imminent sign
- membrane rupture
- bulging perineum
- appearance of the presenting part<sup>[1]</sup>

# Riskassessment

Complications of breech delivery include: [3]

- fetal distress and hypoxia
- prolapsed cord
- head entrapment
- meconium aspiration
- postpartum haemorrhage
- inversion of the uterus



#### isk assessment (cont.)

Incorrect manoeuvres or rough handling can cause:

- spleen or liver damage
- spinal damage or fractures
- fractured bones or dislocations
- soft tissue injuries
- cerebral haemorrhage, if the delivery is too rapid.

## **MANAGEMENT (Breech birth)**

- Preparation for newborn resuscitation should be made at the earliest sign of breech presentation.<sup>[2]</sup>
- Consideration should be sought for early CCP/obstetric retrieval team backup.
- Ensure technique with appropriate infection control measures to be taken at all times.



The following procedure has been adapted from guidelines provided by the World Health Organisation.<sup>[3]</sup>

**NOTE:** Perform all manoeuvres gently and without undue force.

## Delivery of the buttocks and legs

- a) Once the buttocks have entered the vagina ask the birthing parent to push with the contractions.
- b) Let the buttocks deliver until the lower back and then the shoulder blades are seen.
- c) Gently hold the buttocks in one hand, but do not pull.

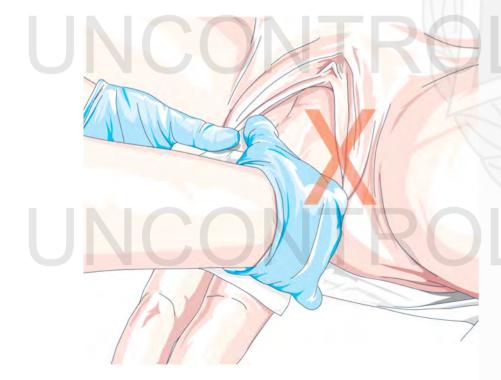
Buttock has entered the vagina

The legs have delivered spontaneously

d) If the legs do not deliver spontaneously, deliver one leg at a time:

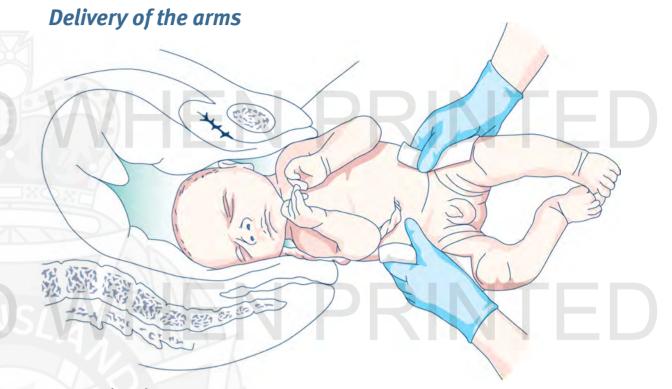
- Push behind the knee to bend the leg;
- Grasp the ankle and deliver the foot and leg;
- Repeat for the other leg.

e) Hold the baby by the hips with thumbs on the buttocks.



#### NOTE:

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



Unassisted (arms disengage spontaneously)

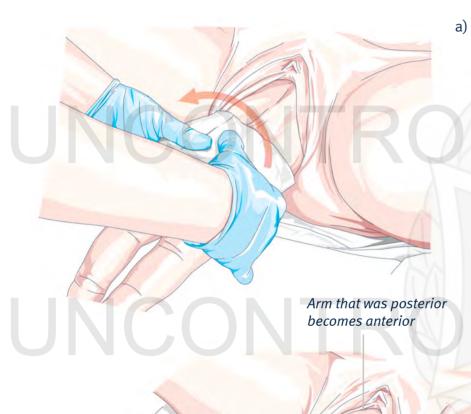


Assisted (bend arm to bring hand over face)

#### Arms stretched above the head or folded around the neck

#### • Use the Loveset's manoeuvre:

Before performing the *Lovesets manoeuvre*, ensure that a dry cloth/pad is wrapped around the pelvis of the baby. This will prevent the clinician's hands from slipping during the procedure and provide some protection for the baby.



Hold the baby by the hips and turn 180°, keeping the back uppermost and applying downward traction at the same time, so that the arm that was **posterior** becomes **anterior** and can be delivered under the pubic arch.

- b) Assist delivery of the arm by placing one or two fingers on the upper part of the arm. Draw the arm down over the chest as the elbow is flexed, with the hand sweeping over the face.
- c) To deliver the second arm, rotate the baby back 180°, keeping the back uppermost and applying downward traction, delivering the second arm in the same way under the pubic arch.



Lovesets manoeuvre 1

Lovesets manoeuvre 2

If the baby's body cannot be turned to deliver the arm that is anterior first, deliver the shoulder that is posterior:

- a) Hold and lift the baby up by the ankles.
- b) Move the baby's chest towards the birthing parent's inner leg. The shoulder that is posterior should deliver.

#### Lovesets manoeuvre 3

c) Free the arm and hand.

the contract

d) Lay the baby back down by the ankles. The shoulder that is anterior should now deliver.

Baby's chest moved towards birthing parent's inner thigh

Posterior shoulder begins to present and deliver

**NOTE:** This procedure is different to the **Burns Marshall Manoeuvre** and once the arms are delivered the **Adapted Mauriceau-Smellie-Veit** is then undertaken. Free the posterior arm and hand

Delivery of anterior shoulder

Lay baby back down by ankles to assist delivery of anterior shoulder

### Delivery of the head

#### Deliver the head by the Adapted Mauriceau-Smellie-Veit (MSV) manoeuvre as follows:

- a) Lay the baby face down with the length of its body over your hand and arm.
- b) Place the first and second fingers of this hand on the baby's cheek bones and flex the head.
- c) Use the other hand to hook the baby's shoulders with the index and ring fingers with the middle finger on the baby's occiput.
- d) Gently flex the baby's head towards the chest to bring the baby's head down until the hairline is visible.
- e) Pull gently to deliver the head.
- Raise the baby, still astride the arm, until the mouth and nose are free.
- g) Deliver the baby onto the birthing parent's abdomen for skin to skin contact.

**NOTE:** Ask an assistant to push above the birthing parent's pubic bone (suprapubic pressure) as the head delivers. This helps to keep the baby's head flexed.

Assistant pushes above the pubic bone as baby's head delivers

1st and 2nd finger

on cheek bones

Hook baby's shoulder with index and ring finger

> Middle finger on baby's occiput

Adapted Mauriceau-Smellie-Veit (MSV) manoeuvre

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# Additional information

#### Care of the newly born (post-natal cares)

- a) Clean the newborn's mouth and nose of visible blood and mucous with a clean cloth. If an airway obstruction is identified, gently suction the mouth followed by the nares (to decrease the risk of aspiration).
   Suctioning of the posterior pharynx should be avoided as it can stimulate a vagal response, resulting in apnoea and/or bradycardia. The vast majority of newborns do not require suctioning.
- b) Using a soft dry towel, or one of the baby blankets from the QAS
   'Maternity Pack', immediately and thoroughly dry the newborn's skin vigorous drying will assist to stimulate the newborn.
- c) Within the first 30 seconds following birth, assess the newborn's:
  - a. heart rate (HR) by listening for an apex beat with a stethescope;
    and
  - b. breathing status by visually assessing the respiration rate and chest rise and fall.
  - If the newborn has a HR of greater than 100 and is crying and/or breathing effectively (chest is rising at least 30 times per minute) immediate resuscitation is not indicated; **however**

If after 30 seconds the newborn has a HR of less than 100 and/or is not breathing effectively, commence resuscitation (refer to *CPG: Resuscitation – Newborn*). Apply an appropriate SpO2 monitor.

d) If practical, place the dry newborn directly on the birthing parent's chest, ensuring skin to skin contact. Skin to skin contact may benefit birthing parent-infant attachment and promote breastfeeding.

e) Apply neonatal SpO2 monitoring on the newborn's (pre-ductal) right hand (refer to *CPP: Assessment/Oximetry – pulse*). Ambulance clinicians should note that SpO2 readings may be lower than normal immediately following birth. The following table gives the expected SpO2 reading in full tern newborns during the first ten minutes following birth.<sup>[13]</sup>

Targeted pre-ductal SpO <sub>2</sub> after birth		
1 minute	60 - 70%	
2 minutes	65 - 85%	
3 minutes	70 - 90%	
4 minutes	75 - 90%	
5 minutes	80 - 90%	
10 minutes	85 - 90%	

f) **At one minute after birth**, complete an APGAR assessment (refer to *CPP: Assessment/APGAR*).

Resuscitation must be commenced if the newborn presents with any of the following:

- a. Heart rate < 100;
- b. Limp muscle tone;
- c. Slow (< 30/min) or irregular respirations (e.g. gasping); or
- d. Centrally pale or blue (cyanosed), or SpO2 readings < 60.

# Additional information (cont.)

- g) Assign and clearly identify one ambulance clinician to be responsible for continual monitoring and ongoing assessment of the newborn.
- h) Perform the following neonatal assessments every 5 minutes

   at this point all HR assessment should include listening to the newborn's apex beat with a stethoscope:
  - a. APGAR (CPP: Assessment /APGAR); and
  - b. VSS/observations newborn's body position, temperature (via non-contact infrared thermometer if available) and SpO2.

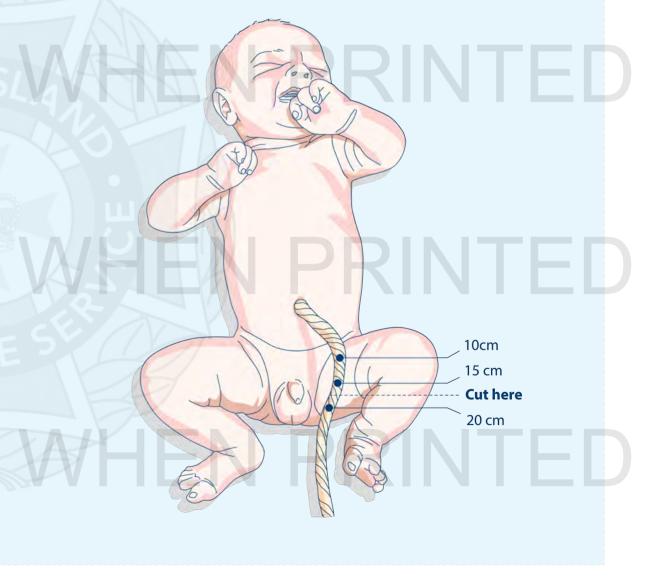
Resuscitation must be immediately commenced (refer to *CPG: Resuscitation – Newborn*) if the newborn presents with any of the following:

- a. Heart rate < 100;
- b. Limp muscle tone;
- c. Slow (< 30/min) or irregular respirations (e.g. gasping); or
- d. Centrally pale or blue (cyanosed), or SpO2 reading lower than expected range (refer to table on previous page).

Ensure the newborn is kept warm by minimising heat loss – place a beanie on the newborn's head and lay blankets over the birthing parent and newborn.

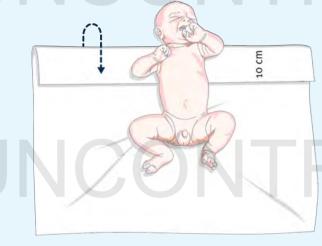
- ) Cord clamping and cutting:
  - a. Delayed cord clamping and cutting (3–5 minutes following birth) is recommended for all births while initiating simultaneous essential neonatal care. Oxytocin may be administered prior to, or following cord clamping.<sup>[14,15]</sup> Immediate cord clamping (less than 1 minute following birth) should only be performed if the newborn needs to be resuscitated.<sup>[16]</sup>

- b. Some birthing parents may request the cord remain intact with the placenta attached (not clamped or cut). This request should be respected unless the newborn is required to be moved for resuscitation.
- c. If the birthing parent consents, clamp the cord in 3 places:
  - 1. at least 10 cm from the newborn
  - 2. at 5 cm further from the baby than the first clamp
  - 3. at another 5 cm further from the baby than the second clamp
  - Cut between the 2 clamps that are furthest from the baby.



# Additional information (cont.)

- k) Encourage breast feeding to promote the production of maternal oxytocin.
- If the newborn is unable to be placed on the birthing parent's chest, swaddle the newborn using a dry baby blanket from the QAS 'Maternity Pack'. Skin to skin contact with the other parent may be considered as an alternative.



Fold the top of the longer edge down approximately 10 cm and lay the newborn on it with their shoulders in line with the fold.

*Tuck the fold under their leg on the opposite side.* 

Place the newborn's other hand under the fold.

Place one of the newborn's hands under the fold.

Bring the other edge of the wrap across the newborn's body and tuck firmly under their back. Fold the excess blanket up and under the newborn's legs.

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### **Delivery of placenta** – Breech birth

### Active management of the third stage of labour (oxytocin administration)

- a) Promote maternal production of oxytocin by providing a safe, warm environment with uninterrupted skin to skin contact between mother and baby, and encourage breastfeeding.
- b) Administer oxytocin (refer to DTP: Oxytocin).
- c) Observe for and confirm signs of placental separation:
  - The uterus rises in the abdomen (observe but do not perform fundal massage at this point)
  - The uterus becomes firmer and globular (ballotable)
  - Fresh show/trickle of blood
  - Lengthening of the umbilical cord.
- d) Birth of the placenta.
  - Assist the birthing parent to birth the placenta by her own efforts. Encourage her to adopt an upright position, bearing down to expel the placenta; **OR**
  - Guard the uterus by placing one hand suprapubically and applying steady controlled cord traction until the placenta is visible. Support the birth of the placenta and membranes by gently twisting to strengthen the placenta and limit the chance of retained products do **not** apply increased traction if resistance is felt, leave and reassess resistance with cord traction after approximately ten minutes.
- e) Complete a fundal assessment:
  - If the uterus is soft massage the fundus until it is firm and central, consider asking the mother to pass urine, as a full bladder can inhibit the contraction of the uterus. Fundal massage must never be performed prior to delivery of the placenta as this can potentiate undesirable complications.
  - If the uterus is firm do **not** massage the fundus as this may cause further bleeding and pain for the birthing parent.



Guarding uterus

Application of cord traction until the placenta is visible

Support birth of placenta and membranes

### **Delivery of placenta** – Breech birth

- f) Assess the placenta for completeness and integrity; check to see if there are missing parts or ragged membranes that may contribute to excessive postpartum blood loss – document findings.
- g) Retain the placenta for visual inspection by the midwife and/or doctor.
- h) Assess and estimate blood loss (normally around 200–300 mLs) and document findings.

### Physiological management of the third stage of labour (patient refusal of oxytocin administration)<sup>[8]</sup>

- a) Promote maternal production of oxytocin by providing a safe, warm environment with uninterrupted skin to skin contact between mother and baby, and encourage breastfeeding.
- b) Assist the mother to birth the placenta naturally by her own efforts. Encourage her to adopt an upright position, bearing down to expel the placenta.
- c) Do **not** apply cord traction.
- d) Complete a fundal assessment:
  - If the uterus is soft massage the fundus until it is firm and central, consider asking the mother to pass urine, as a full bladder can inhibit the contraction of the uterus. Fundal massage is only to be performed **after** delivery of the placenta.
  - If the uterus is firm do **not** massage the fundus as this may cause further bleeding and pain for the birthing parent.

- e) Assess the placenta for completeness and integrity; check to see if there are missing parts or ragged membranes that may contribute to excessive postpartum blood loss and document findings.
- f) Retain the placenta for visual inspection by the midwife and/or doctor.
- g) Assess and estimate blood loss (normally around 200-300 mLs) and document findings.

**NOTE:** If blood loss exceeds 500 mL, refer to **CPG: Primary postpartum haemorrhage** 

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