I have no financial conflicts of interest to disclose
Objectives

At the end of this presentation, participants should be able to:

• State the most common risk factors for breech presentation
• Describe the potential complications of breech delivery
• List the criteria for breech delivery
• Describe the contraindications for breech delivery
• State the relevant anatomical landmarks for breech delivery
• State the name of the instruments required to perform breech delivery
• Describe how to perform sacrum anterior breech delivery
See One? Ever Do One?
Types of Breech

• Frank Breech
  – 50-70% of breeches
  – Both hips flexed and both knees extended
  – Feet are near its head
Types of Breech

• Complete Breech
  – 5-10% of breeches
  – Both hips and knees flexed
  – Knees are opposite the trunk not the head
Types of Breech

- Footling Breech/Incomplete Breech
  - 10-40% of breeches
  - One or both hips extended
  - One or both feet or knees present before the buttocks
Incidence

• Decreases with increasing gestational age

• @32 weeks=16%, Term=3-4%
  – Spontaneous version
    • After 36 weeks→25%
Risk Factors

• Altered intrauterine contour/volume
  – Uterine anomalies (bicorunate or septate)
  – Space occupying lesion (Leiomyomata)
  – Placental abnormalities (Previa or cornual)
  – Lax abdominal walls (Grand multiparity)
  – Poly- or oligohydramnios
  – Contracted maternal pelvis
Risk Factors

• Altered fetal shape
  – Fetal anomaly (anencephaly, hydrocephaly)
  – Extended fetal legs

• Altered fetal mobility
  – Crowding
  – Fetal asphyxia
  – Impaired growth
  – Neurologic impairment
  – Short umbilical cord
  – Fetal Death

• Nulliparity, female sex, maternal anticonvulsant therapy and previous breech
Manifestations and Diagnosis

• Maternal
  – Subcostal discomfort
  – Kicking in lower abdomen

• Ultrasound

• Exam
  – Buttock vs. edematous face
    • Greater trochanters and anus form straight line
    • Malar bones and mouth form a triangle
Management

• External Cephalic Version (ECV)
Term Breech Trial

• Randomized multicentered trial
• 2088 patients in 26 countries with singleton frank or complete breeches randomized to planned c/s or vaginal deliveries
• Outcomes
  – Perinatal mortality
  – Neonatal mortality
  – Serious neonatal morbidity
  – Maternal mortality
  – Serious maternal morbidity
Term Breech Trial

- Exclusion criteria
  - CPD present
  - Clinically large, EFW > 4000g or more
  - Hyperextended neck
  - Fetal anomaly or condition causing problem at delivery
  - Known lethal anomaly

- Protocol for management of vaginal birth
- C/S were scheduled for 38 weeks, if in labor done ASAP, and always had ultrasound confirmation of position, all patient got antibiotics at cord clamp
Term Breech Trial

- Follow-up recorded at 6 weeks, 3 months, and 2 years

- Required a sample size of 2800 to have 80% power to find a reduction in perinatal and serious neonatal morbidity from 0.8% with planned vaginal birth to 0.1% with planned c/s
Term Breech Trial

• RESULTS:
  – Perinatal mortality
  – Neonatal mortality
  – Serious neonatal morbidity

SIGNIFICANTLY LOWER FOR PLANNED C/S THAN PLANNED VAGINAL BIRTH

- Maternal mortality
- Serious maternal morbidity

NO DIFFERENCE BETWEEN THE GROUPS
ACOG Committee Opinion
Mode of Term Singleton Breech Delivery

• Number 340, July 2006
  – “... the American College of Obstetricians and Gynecologists recommends that the decision regarding mode of delivery should depend on the experience of the health care provider...”

  – “… Cesarean delivery will be the preferred mode for most physicians because of the diminishing expertise in vaginal breech delivery...”
Vaginal Delivery
Criteria for an optimal situation

• No contraindication to vaginal birth
• Absence of fetal anomaly
• EFW 2000g-4000g
• EGA 36 weeks or more
• Flexed fetal head
• Facilities for safe emergency c/s

• No hyperextension of fetal head
• Frank or complete breech
• Normal progress of labor
• Continuous fetal heart rate monitoring
• Skilled staff
Vaginal Delivery Management

• Labor
  – Confirm flexed hips
    • Vaginal exam vs. ultrasound
  – Leave membranes intact
  – Monitor progress of labor closely
    • Level of the ischial spines by 6 cm
    • Pelvic floor by complete dilation
    • Failure of descent with patient bearing down should go to c/s
  – Second Stage
    • Up to 1 hr. for descent to pelvic floor
    • Expect delivery within 1 hr. of active pushing—NULLIPARAS
      Expect delivery within 30 min. of active pushing—MULTIPS
Vaginal Delivery

Delivery of Trunk

• Fetus emerges spontaneously, maintains cephalic flexion
Vaginal Delivery

Delivery of Trunk

• Opposite rotation and flexion of knee to delivery each leg
Vaginal Delivery

Delivery of Trunk

• Wrap trunk in towel, patient pushes to scapula, sweep arm across the chest to delivery arm
• Cord pulsation is checked and a small loop pulled down to prevent traction on cord
Vaginal Delivery
Delivery of Head

• Re-wrap arms and SLIGHTLY elevate
Vaginal Delivery
Delivery of Head

• Cephalic flexion maintained by pressure on the fetal maxilla NOT MANDIBLE
  – Mauriceau Smellie Veit maneuver
Vaginal Delivery

Piper Forceps

- Forceps applied to the aftercoming head
Vaginal Delivery
Piper forceps

- Fetus is laid on the forceps and delivered
  - Gentle downward traction
Vaginal Delivery

• Pinard Maneuver
  – Used in frank breeches to deliver a foot in the vagina
Vaginal Delivery
Head Entrapment

• High Risk ➔ Preterm infant
  – Fetal: head abdomen circumference ratio is larger than that of a mature baby

• Treatment/Maneuvers
  – Terbutaline .25 mg SQ or 2.5-10mcg/min IV
  – Nitroglycerine 50-200mcg IV
  – Duhrssen incision
  – Zavenelli
  – Symphysiotomy
Vaginal Delivery

• Summary
  – Pick your patient well
  – Have staff ready
    • Nursing
    • Anesthesiology
    • OB provider
    • Neonatology
  – Have equipment ready
    • Piper forceps
    • OR