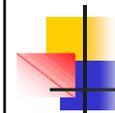


Obstetrics / Gynecology

Aaron J. Katz, AEMT-P, CIC

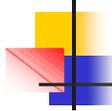
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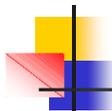
Important Terms to Know

- Fetus
 - Unborn infant growing in the uterus
- Uterus (womb)
 - Muscular organ where fetus grows
- Birth canal
 - Cervix ("neck" of the uterus) & vagina
- Mucous plug
 - Seals uterine opening
 - Protects against infection



Important Terms to Know - 2

- Bloody "Show"
 - Release of the mucous plug
 - Often the beginning of the first stage of labor
- Perineum
 - Area of skin between the vagina and anus
- Placenta ("after birth")
 - Body which attaches to the inner lining of the uterus – the source of fetal nourishment

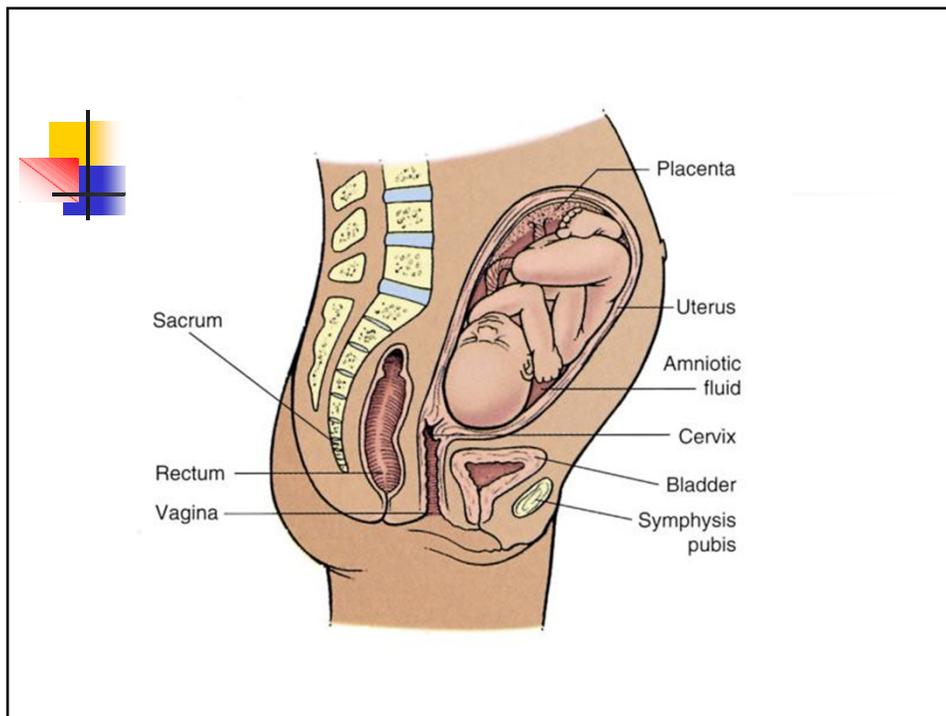


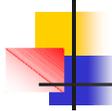
Important Terms to Know - 3

- Umbilical cord
 - Connects the mother and fetus through the placenta
 - Has two arteries and one vein
 - Vein carries oxygenated blood to the fetal heart
 - Arteries carry blood away from the fetal heart
 - O₂ and nutrients from mother through the vein
 - CO₂ and wastes back to mother
 - **Mother's and fetal blood never mix**

Important Terms to Know - 4

- Amniotic sac (“Bag of waters”)
 - 500 – 1000ml of amniotic fluid
 - Fetus develops in this fluid
 - Provides cushioning
 - **Usually** released in a gush at the onset of labor
- Full Term
 - 36 – 40 weeks from LMP
- Premature
 - < 36 weeks from LMP





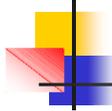
Labor – 3 stages

- Stage one
 - End with complete dilation of the cervix
 - Takes an average of 16 hours for **first** child
 - Time becomes progressively shorter with each delivery
- Stage two
 - Ends with the delivery of the baby
 - ***Decision time!***
- Stage three
 - Ends with delivery of the placenta



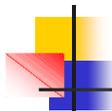
Pre-delivery emergencies

- Ectopic pregnancy
- Preeclampsia
- Eclampsia
- Supine hypotensive syndrome
- Abruptio placenta
- Placenta previa



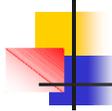
Ectopic pregnancy

- Fetus develops outside the uterus
 - Usually in the fallopian tubes
- In early weeks of pregnancy
 - ***Patient may not even know they are***
- **Major risk:**
 - **Death due to internal bleeding from rupture**



Ectopic pregnancy

- Signs/Symptoms
 - Sudden stabbing pain in lower abdomen
 - *Sometimes* referred pain to right shoulder
 - *Sometimes* vaginal bleeding
- Treatment
 - ABCs
 - Treat for shock PRN
 - **Rapid transport**



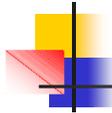
Ectopic pregnancy

Any female of child-bearing age with lower abdominal pain is assumed to have an ectopic pregnancy until ruled out



Preeclampsia

- AKA “pregnancy induced hypertension”
- Usually > 20 weeks
- S/S include
 - Headache
 - Visual disturbances
 - Seeing spots
 - Edema of the hands and feet
 - Anxiety
 - Hypertension



Eclampsia

- Preeclampsia **and seizures**
 - AKA Pregnancy induced hypertension and seizures
- Treat with:
 - ABCs
 - **Call for ALS**
 - **To treat the seizures**
 - Transport promptly

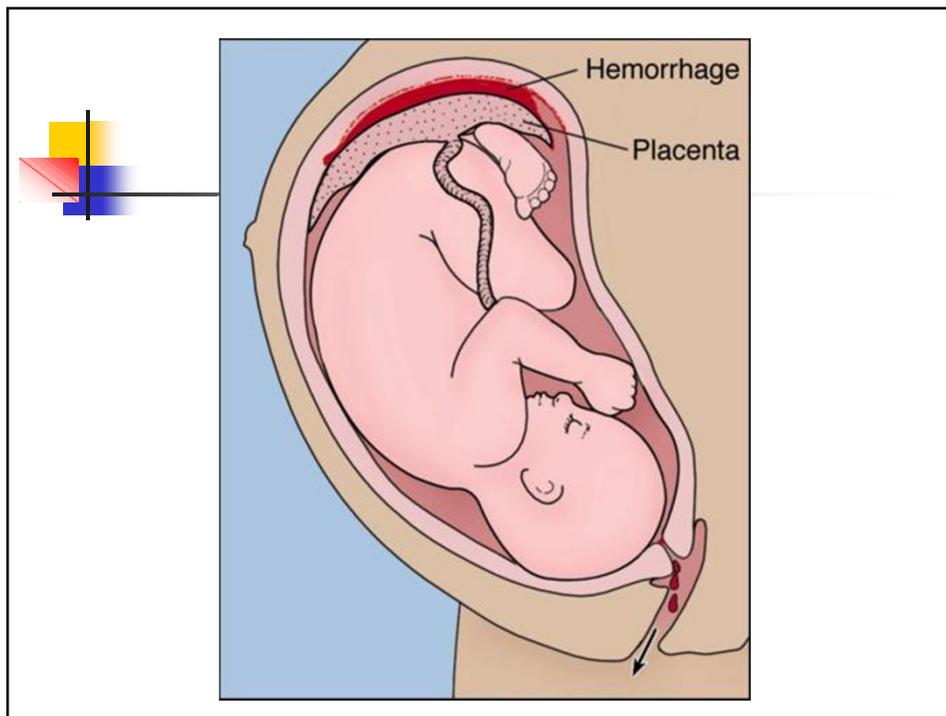


Supine hypotensive syndrome

- Hypotension caused by a large uterus leaning on the inferior vena cava
- Diminishes blood flow returning to heart
- Simple treatment!
- Place patient on her left side
 - Use a folded blanket under right hip
- Oxygen

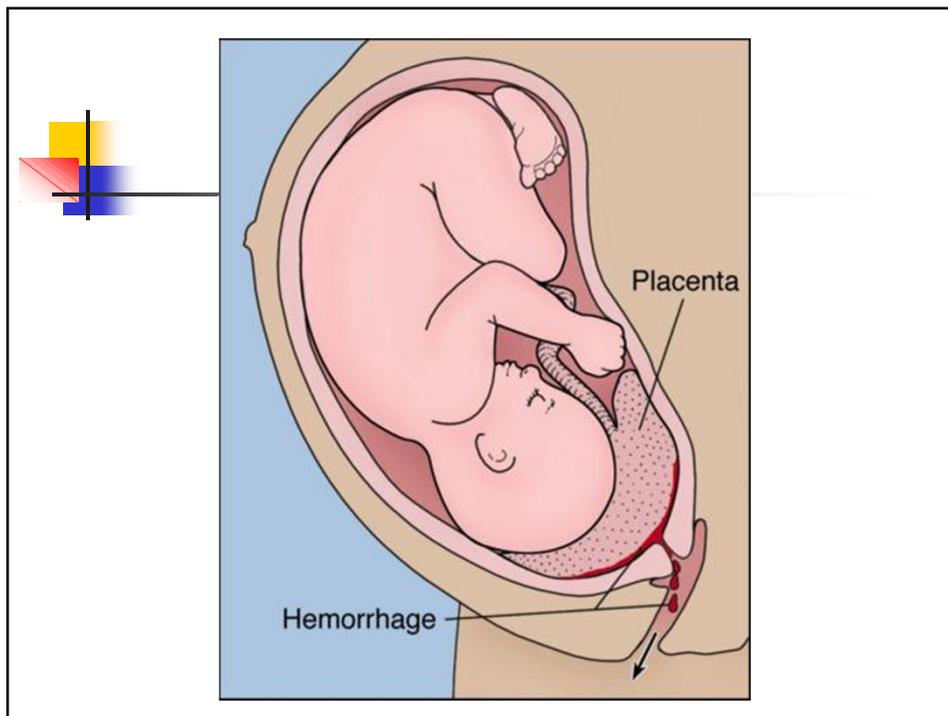
Abruptio placenta

- Placenta prematurely separates from uterine wall causing...
- **Loss of oxygen and nutrients to fetus**
- **Major internal bleeding**
 - May or may not see any vaginal bleeding
- **A true emergency!**



Placenta previa

- Placenta develops over and covers the cervix
- May or may not see any vaginal bleeding
- **A true emergency!**



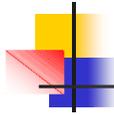


Vaginal bleeding during pregnancy

- **Any vaginal bleeding at any time during pregnancy is considered abnormal and must be transported**
- Treat with:
 - ABCs
 - Treat for shock PRN
 - Position on left side
 - Transport promptly



- Emergency childbirth and resuscitation
- Stabilization of the newborn
- **Notes:**
 - For imminent delivery, request ALS
 - Do not wait for ALS
 - **NEVER** delay or restrain delivery under normal circumstances



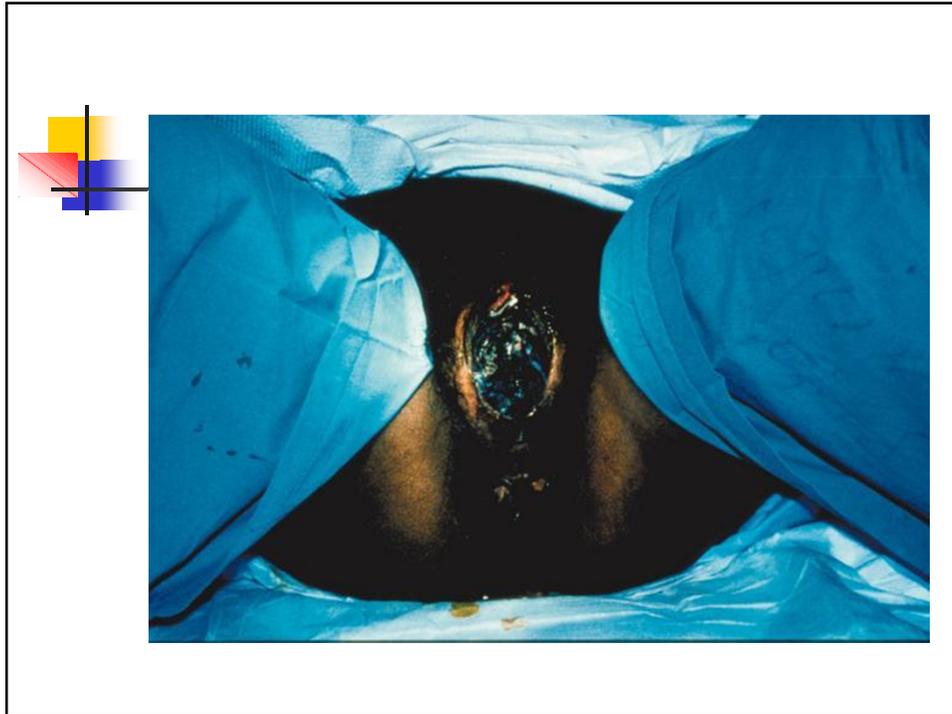
Childbirth – general approach

- Assure that mother's ABC's are OK!
- Assess and treat for shock PRN
- Obtain a quick history to determine if mother's in labor:
 - Length of term
 - Number of previous pregnancies
 - Number of prior births
 - Frequency & duration of uterine contractions
 - Recent vaginal discharge or bleeding
 - **Presence of urgency to move bowels**
- **Do not allow mother to go to the bathroom!**

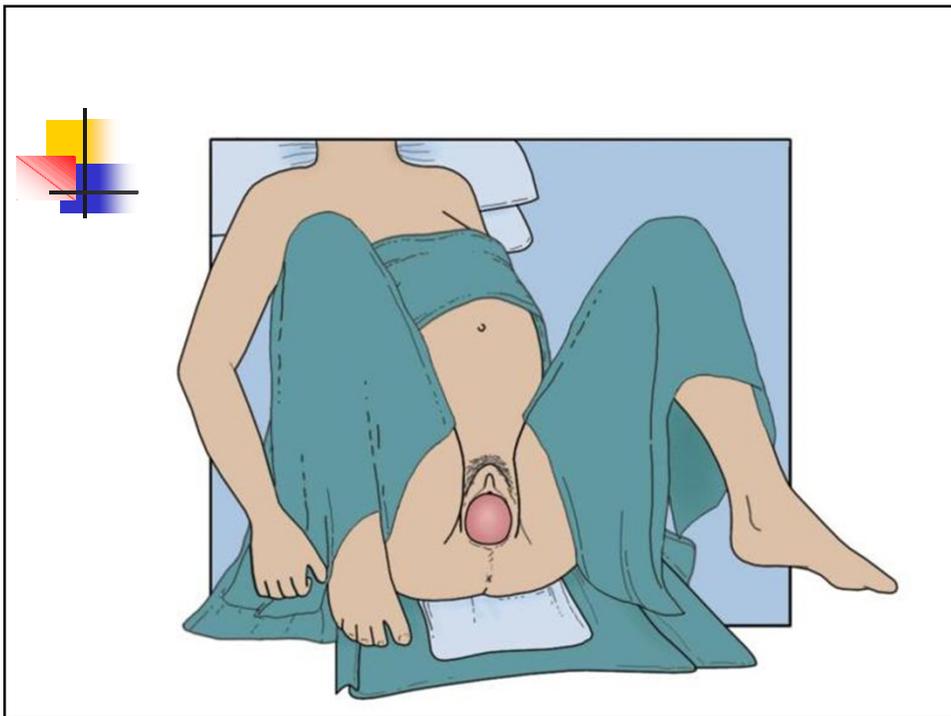
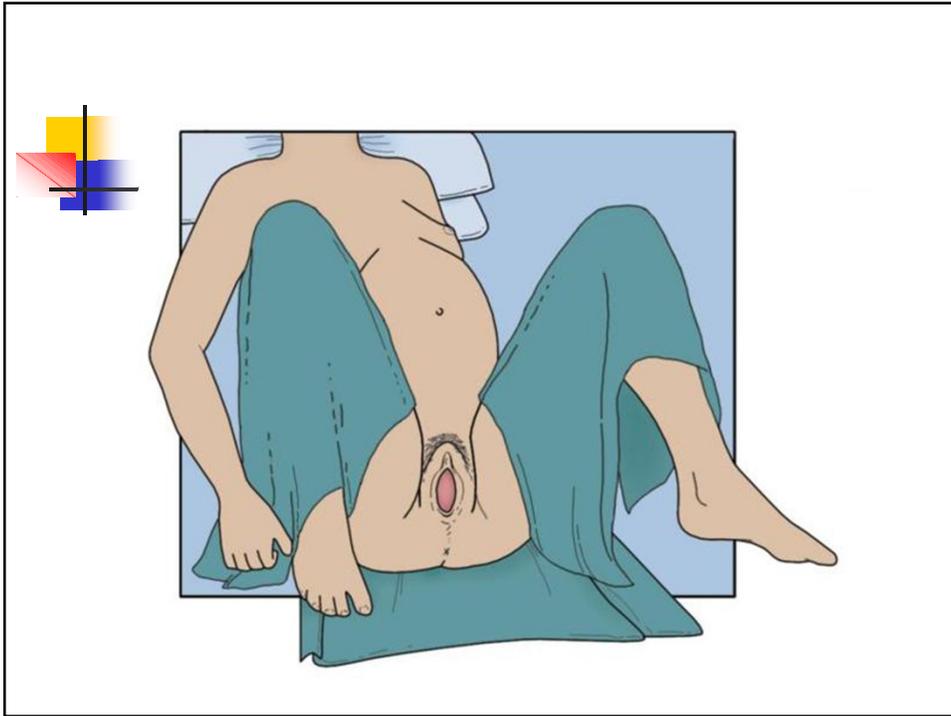


Childbirth – general approach

- **Determine if mother is having contractions**
 - Perform a **visual** inspection looking for bulging of the perineum or **crowning**
 - If contractions are 2 – 3 minutes apart lasting 60-90 seconds **and/or**
 - Crowning of the head the size of a half dollar is present between contractions **then...**
 - **Prepare for immediate delivery...**



- ## Prepare for delivery
- **Inform the mother of the need for immediate delivery**
 - Secure a private/sanitary environment
 - Position and drape the mother
 - Place the OB kit within easy reach
 - Warm several towels, if possible





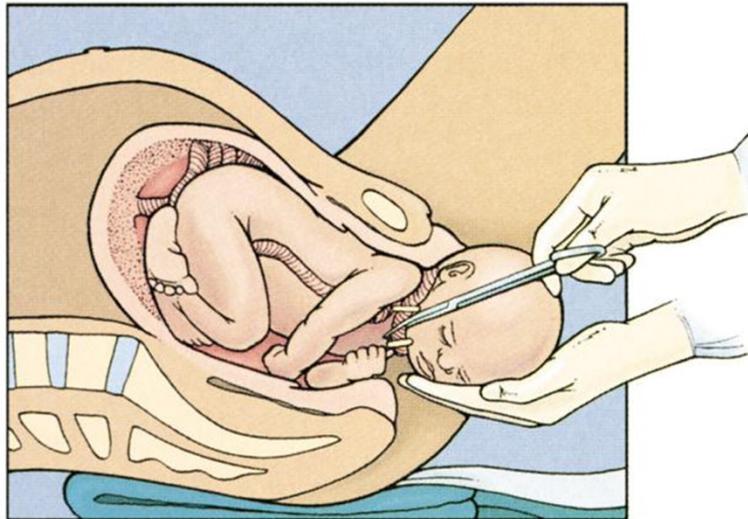
Uncomplicated delivery - 1

- Support the infant's head with one hand while gently guiding it out – **to prevent an explosive delivery**
- Use second hand in with sterile dressing to **prevent tearing of the perineum**
- Attempt to prevent the head from touching fecal material
- **If the amniotic sac has not yet ruptured:**
 - Puncture it with a gloved hand or umbilical clamp
 - Move the head away from the gushing fluid
 - Suction PRN

Uncomplicated delivery - 2

As soon as the head delivers:

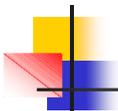
- Continue to support the head with one hand
- Tell the mother to stop pushing
- **Inspect the infant for an umbilical cord wrapped around its neck**
 - If wrapped loosely, *gently* slip it over the infant's neck
 - If wrapped tightly:
 - **Immediately** clamp the umbilical cord with two clamps and cut in-between





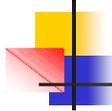
Uncomplicated delivery - 3

- **Suction the oropharynx first**
 - Insert a compressed bulb syringe 1 – 1.5” into the infant’s mouth
 - Suction the infant’s oropharynx while controlling the release of the bulb
 - Repeat suctioning PRN



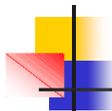
Uncomplicated delivery - 4

- **Suction the infant’s nostrils:**
 - Insert a compressed bulb syringe at most 0.5” into the infant’s nose
 - Suction the infant’s nostrils while controlling the release of the bulb
 - Repeat suctioning PRN
- Tell the mother to push during contractions



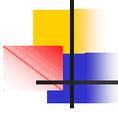
Uncomplicated delivery - 5

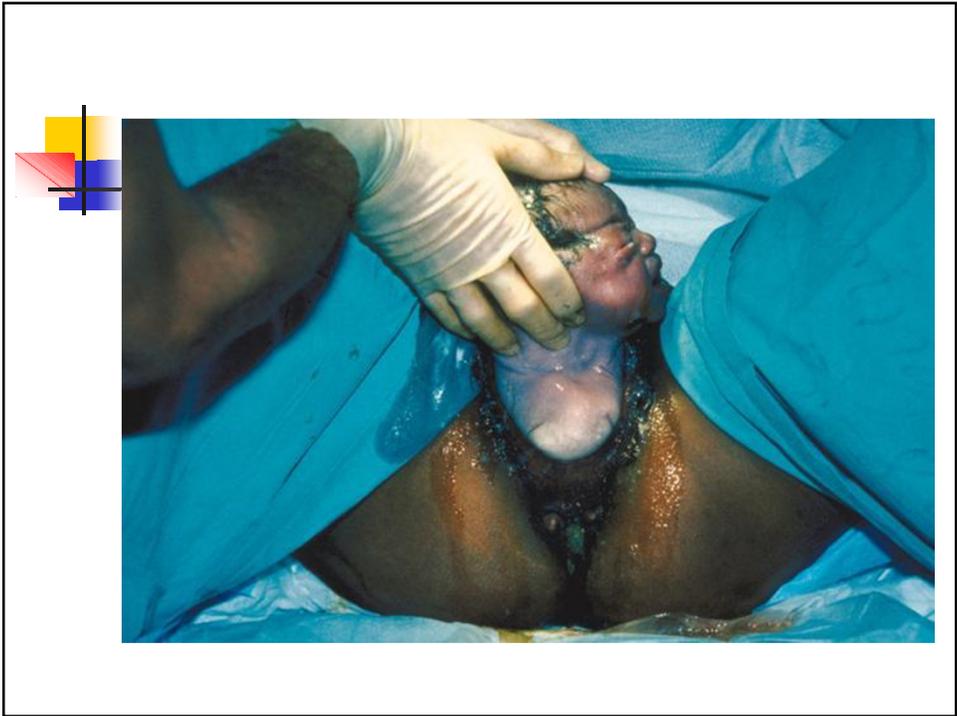
- Once the head delivers, guide the shoulders out... remainder of delivery will generally proceed quickly
- **Dry the infant quickly – note that the infant will be very slippery!**
- **Place on a warm towel in a face up position *with feet higher than the head***
- ***Keep the infant at the mother's vaginal level until the umbilical cord is cut***
- Repeat suctioning PRN



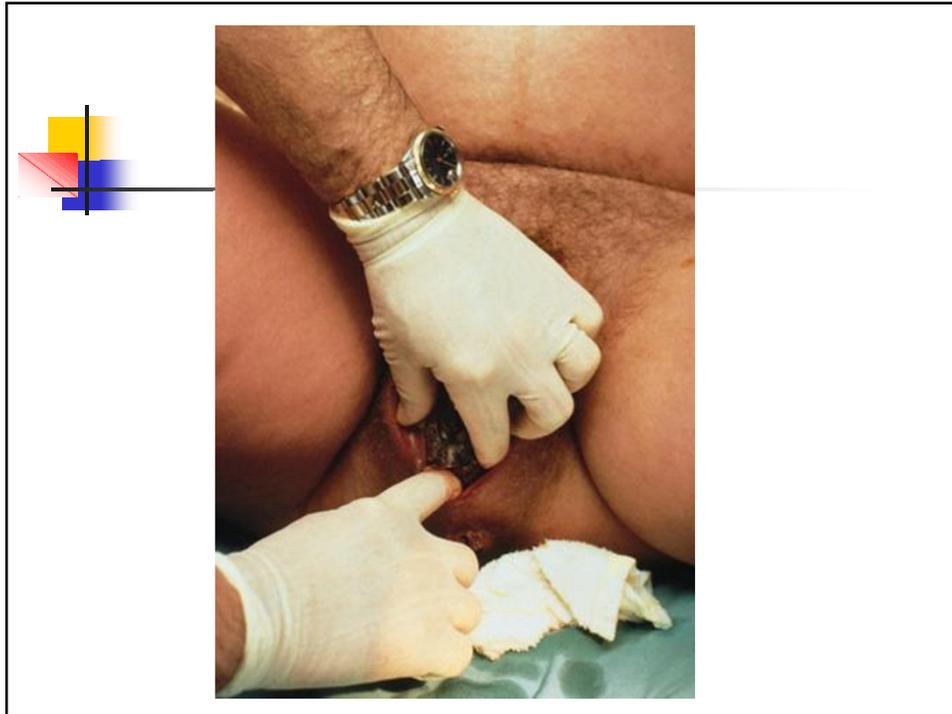
Uncomplicated delivery - 6

- **Quickly assess the newborn's respiratory status, pulse and general condition**



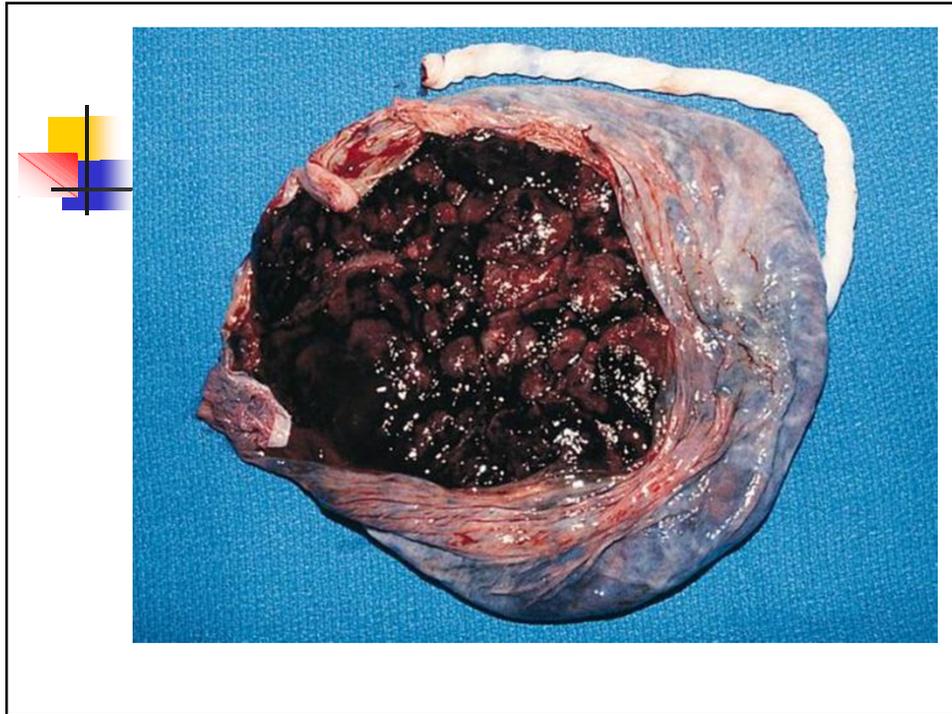






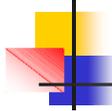
Normal post-delivery - 1

- Infant is breathing spontaneously; crying vigorously with pulse > 100/min
- Clamp the cord
 - First clamp 8-10" from the baby
 - Second clamp 3" closer to the mother
 - Cut in-between **carefully**
 - Cover the scalp with a warm covering
 - Wrap the infant in a warm blanket **and** a layer of foil
 - Do **NOT** use foil alone
 - Infant "swaddler"
- Keep the infant warm and free of drafts.



Normal post-delivery - 2

- Reassess/Treat mother for shock
- Once delivery is complete and infant is stabilized, **initiate transport**
 - **Do not wait for placenta to deliver**
 - **Keep infant warm and free from drafts**
 - **Pre-warm ambulance to 80 – 90 degrees**
 - **Repeat vital signs on all patients**



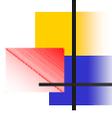
Abnormal post-delivery - 1

- Spontaneous respirations should begin within 30 seconds
- **If infant is not breathing spontaneously and crying vigorously:**
 - **If respirations < 30/minute, stimulate**
 - Rub the infant's lower back gently
 - Gently snap the bottom of the infant's feet with the index finger



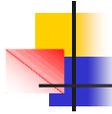
Abnormal post-delivery - 2

- If despite stimulation, respirations remain depressed or absent or infant is cyanotic:
 - Suction



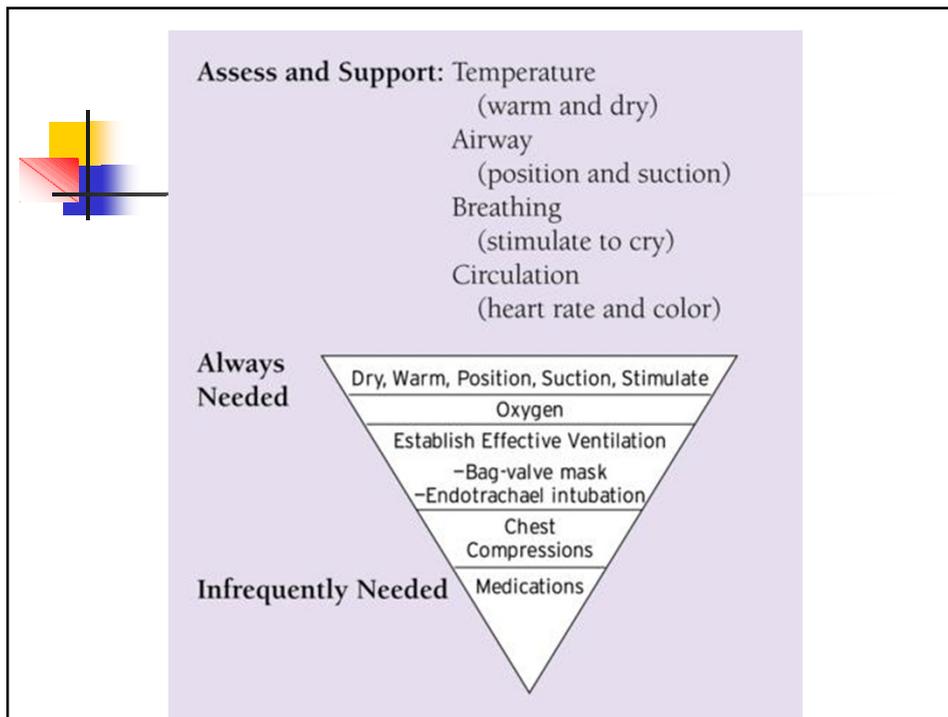
Abnormal post-delivery - 3

- If despite stimulation suctioning and oxygen, respirations remain depressed or absent or infant is cyanotic:
 - Insert an OPA
 - Ventilate with BVM 40 – 60 breaths/min
 - Assure that chest rises every time



Abnormal post-delivery - 4

- **Monitor the pulse continuously!**
- If pulse rate drops below 100/min
 - **BVM @ 40 – 60 breaths/min**
- If pulse rate drops below 60/minute **or does not increase above 60/minute after 30 seconds of BVM ventilation:**
 - Perform chest compressions using AHA guidelines
 - ***TRANSPORT IMMEDIATELY, repeating vital signs enroute!***
 - ***Do not wait for the placenta to deliver***



-
- ## Complete the task
- If the placenta delivers, take it to the hospital
 - To minimize “post-partum” bleeding:
 - Massage the uterine area
 - Allow the mother to nurse **after the cord is cut**



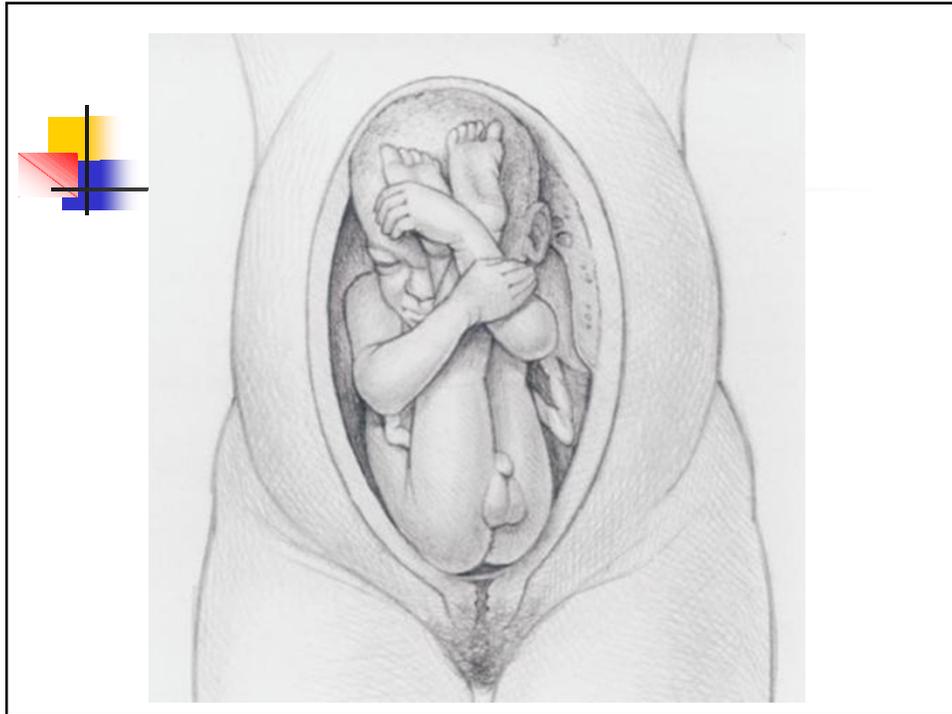
Complicated childbirth

- Breech birth
- Prolapsed umbilical cord
- Multiple births



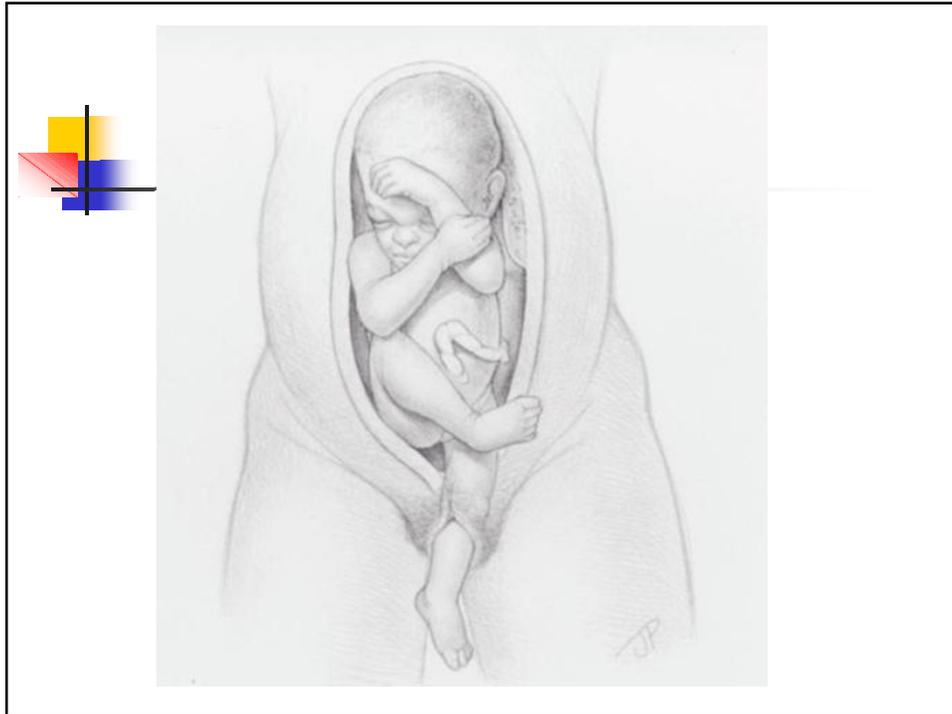
Breech birth

- **Buttocks present first**
 - Hi-con oxygen to mother
 - **Maintain an open path in the birth canal to the infant's mouth with sterile gloved fingers in a "V" position**
 - Keeps the head off the cord
 - **Transport mother immediately in the face-up position with hips elevated while maintaining an open path to the infant's mouth**



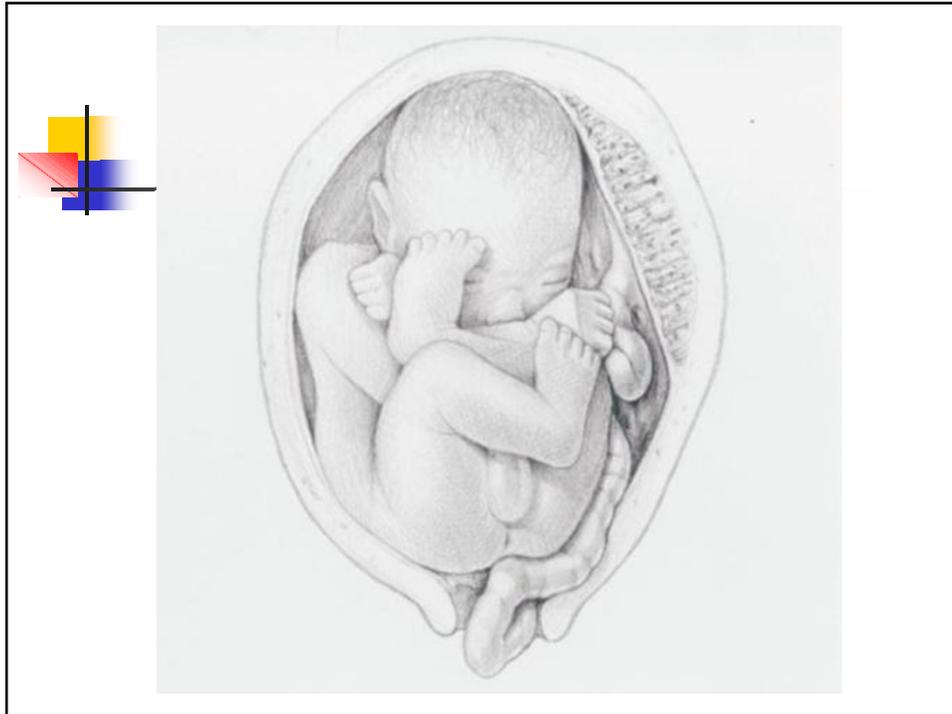
Breech birth - 2

- **Limb presents first**
 - Hi-con oxygen to mother
 - Transport mother immediately in the face-up position with hips elevated



Prolapsed umbilical cord

- Hi-con oxygen to mother
- Place mother in face-up position with the hips elevated
- Using sterile gloves, push the infant back into the uterus an inch or two to take the pressure off the cord **until you are relieved by ER staff.**
- **DO NOT insert the cord into the uterus**
- **Wrap the exposed cord with sterile dressings**
 - **Must be kept warm**
- **Transport immediately**



Multiple births

- Not really a complication!
- Get additional help!
- Deliver each infant according to protocols
- Clamp and cut cord between births
- If the anticipated second birth does not occur after ten minutes, **transport immediately**