



CHILDBIRTH COMPLICATIONS

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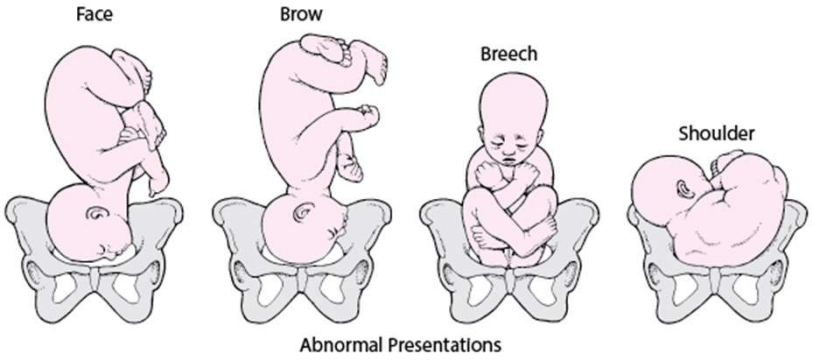
So far, we have seen the process of normal childbirth and how to care for the newborn and the mother after delivery.

In this section, we will talk about the possible complications that can happen during childbirth and what you should do in such circumstances.

Good studying.

Abnormal Presentations in Childbirth

- Breech
- Limb presentation
- Multiple births
- Prolapsed cord
- Should dystocia
- Nuchal cord



Abnormal Presentations

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In a normal presentation, the fetus is facing the mother's back, while the face and body are angled to one side. Its neck is flexed and the head is facing downwards. This position, or presentation, is most conducive for childbirth. Such a presentation is called vertex or cephalic presentation, and it often leads to a normal delivery.

But sometimes, the position of the fetus is a little different, and these are called abnormal presentations. In such presentations, a vaginal delivery may not be

possible.

Let’s now take a brief look at some of the other possible presentations.

The first is the face presentation, and it is also called, Occiput posterior presentation. In this position, the fetus is facing the mother’s abdomen, instead of the back. In this position, the neck is straight and not bent, as it should be. As a result, the head requires more space to pass through the birth canal, and may sometimes, require a vacuum extractor or forceps. This is the most common abnormal presentation, and a cesarean delivery may be necessary when the baby is in this position.

Likewise, a brow presentation is when the baby’s neck is moderately arched. In both the face and brow presentations, the baby may correct itself automatically to the vertex presentation.

Other presentations include breech presentation and limb presentation, and we will take a detailed look into each of these presentations now.

Abnormal Presentations | Breech Presentation

- Most common abnormal delivery
- Buttocks or both-legs-first delivery
- Risk of birth trauma to baby is high
- Meconium staining often occurs



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The second most common is the breech presentation, where the legs or the buttocks are present first. In this type of presentation too, a vaginal delivery is difficult, because the buttocks can get injured during delivery, and there is even a possibility for the baby to die. Thankfully though, this position can be easily detected before the delivery, so necessary precautions can be taken.

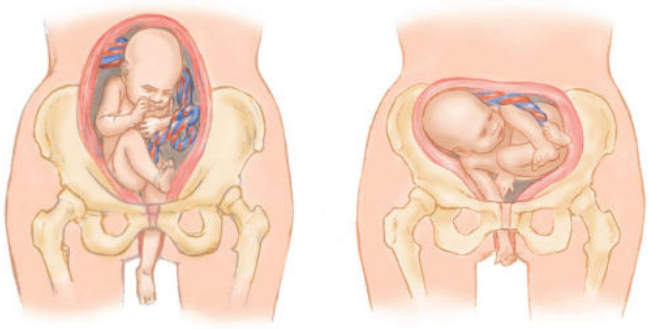
This breech presentation occurs most commonly during preterm labor, or when the uterus is shaped abnormally. Also, it can happen when the uterus

contains abnormal growth called fibroids. Sometimes, when the child has a birth defect, this position is possible. Further, meconium staining is highly likely in such presentations.

Though cesarean delivery is the safest way to deliver babies in this presentation, sometimes the doctor may press the mother's abdomen just before labor, to change the presentation. But trying to change the position after the labor starts can lead to problems, and hence must be avoided. In some cases though, the doctor may give a drug such as terbutaline to delay the start of labor, so the position can be changed.

Abnormal Presentations | Limb Presentation

- A limb of infant protrudes from the vagina
- Commonly a foot when baby in breech position
- Rapid transport essential
- Cannot be delivered in a prehospital setting



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In the limb presentation, one limb of the fetus protrudes from the vagina. In this position, a vaginal delivery is too risky as there is a possibility for the baby to get stuck in the mother's pelvis, leading to a medical emergency, where both the baby and the mother are at high risk.

This is why doctors prefer to do a cesarean delivery when the baby is in a limb presentation. Also, this presentation requires hospitalization, and it is too risky to deliver the baby in a prehospital setting.

Abnormal Presentations | Multiple Birth

- Have appropriate resources
- Clamp or tie cord of first baby
- Assist with delivery of second baby
- Placenta and cord care are same as single delivery
- Keep babies and mother warm



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When a mother is carrying more than one fetus in her womb, the delivery could get complicated. So, be prepared, and have enough resources on hand to handle multiple births.

If the delivery is through the vagina, assist with the delivery of the first baby, and immediately, clamp or tie the chord of the first baby.

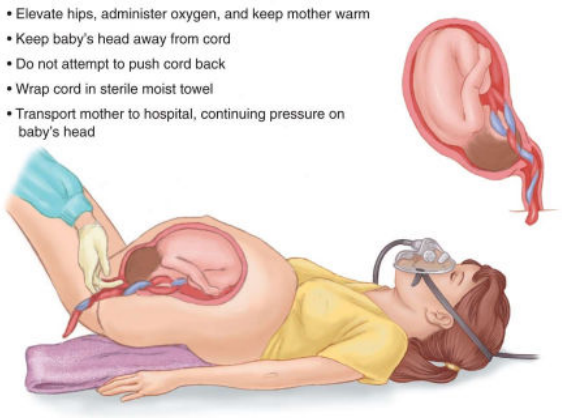
Now, wait for the second baby, and assist in this delivery as well. After the second baby is delivered, clamp the cord again. Remember that the cord and

placenta are common for all the babies.

Once the babies are born, provide the right care for the mother and the babies. Keep them warm, comfort them in the best way you can, and eventually, ensure they are in good health.

Abnormal Presentations | Prolapsed Umbilical Cord

- When umbilical cord presents first and becomes squeezed between vaginal wall and baby's head
- Oxygen supply to the baby may be totally interrupted
- Life-threatening condition



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Prolapsed umbilical cord is a major complication that occurs during or just before the delivery. In this complication, the umbilical cord drops through the open cervix first, and falls into the vagina before the baby comes through it. As a result, this cord can entangle with the baby or prevent the baby from moving through the cervix. Further, this prolapsed umbilical cord can interrupt the oxygen supply to the baby.

This is a life-threatening condition for both the mother and the baby, so seek help right away. If this

happens in a prehospital or home setting, transport the patient immediately to the hospital.

Abnormal Presentations | Shoulder Dystocia

- Baby's shoulders get stuck in the birth canal
- Life-threatening for both baby and the mother
- Turtle sign
- Risk factors



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Another possible childbirth complication is shoulder dystocia, in which the baby's head passes through the birth canal, but its shoulders get stuck in it. As a result, the delivery time can be longer, and it can prevent the baby from getting delivered.

Needless to say, this is a medical emergency, as it can prevent oxygen supply to the baby, thereby injuring its brain tissues. For the mother too, this condition can lead to the tearing of tissues in the cervix and uterus.

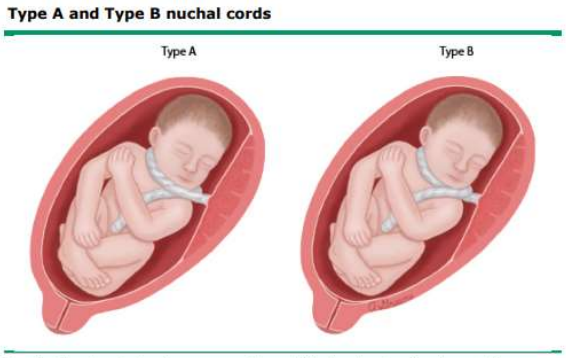
You can identify shoulder dystocia when you can see the head of the baby as it is coming out, but not the shoulders. Also, the baby's head might go back a bit because of the stuck shoulders. Since this looks like a turtle popping its head in and out, this sign is also known as a turtle sign.

Historically, shoulder dystocia is a possible complication in women who have gestational diabetes, if the baby is large, when the labor is induced, if the mother is obese, when there are multiple births, and if the delivery is way past the due date.

When a mother or a baby has any of these risk factors, make sure that the delivery happens only at the hospital, so any emergency can be handled quickly.

Abnormal Presentations | Nuchal cord

- Nuchal cord is when the umbilical cord gets wrapped around the baby's neck
- Can be life-threatening for the baby
- Rare condition
- No symptoms



Type A: The placental end crosses over the umbilical end, entangling the neck in an unlocked pattern. This pattern can become undone with fetal movement.
Type B: The placental end crosses under the umbilical end, entangling the neck in a locked pattern. This pattern cannot undo itself and can form a true knot when it passes caudally over the fetal body.

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As you know, the umbilical cord is the lifeline of the fetus, as it provides all the essential nutrients from the placenta. However, there is a possibility for this umbilical cord to get wrapped around the baby's neck. This can happen before or during delivery.

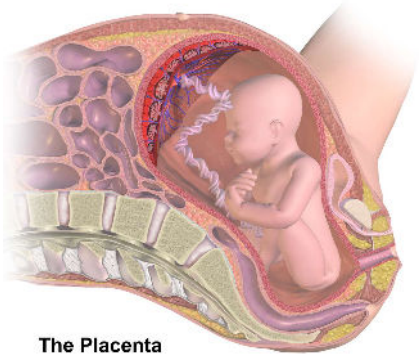
When the nuchal cord is stuck around the baby's neck, it strangulates the baby, and could lead to a potentially dangerous condition. This could happen because of the baby's movements or if there is excessive amniotic fluid. That said, there is nothing much anyone can do about it.

There are no symptoms associated with a nuchal cord. Though it can be detected during an ultrasound, it is very difficult. But if a nuchal cord has been detected, the baby should not be delivered through the vagina.

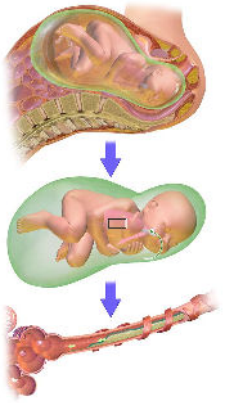
If the nuchal cord was not detected in ultrasound, watch out for it while the baby is getting delivered, and gently remove it from the baby's neck. While strangulation due to nuchal cords is rare, still, watch the nuchal cord as the baby is delivered.

Other Complications of Delivery

- Unbroken amniotic sac
- Premature Births
- Meconium Staining
- Stillbirths



The Placenta



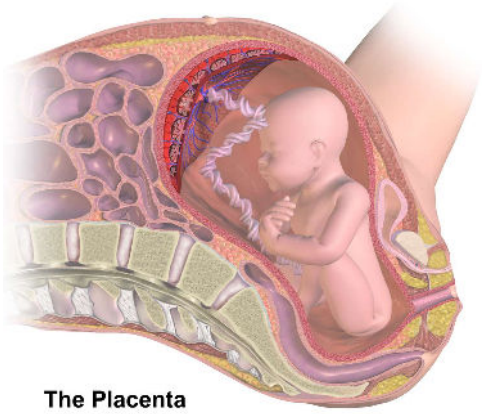
Meconium Aspiration Syndrome

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So far, we have seen some of the common childbirth complications that are also potentially life-threatening for both the mother and the baby. Besides these complications, there are also a few others like an unbroken amniotic sac, premature births, meconium staining, and stillbirths.
Let's take a deeper look into each of these complications now.

Complications of Delivery | Unbroken Amniotic sac

- Babies are born inside an amniotic sac
- Rare occurrence
- More likely in cesarean deliveries
- Premature delivery if vaginal
- Amniotic sac has to be broken



The Placenta

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Some babies can be born inside an unbroken amniotic sac. Also, called as en caul or veiled birth, this is a rare complication, and mostly occurs only in cesarean deliveries, because the sac has to break for the baby to travel through the birth canal to be delivered through the vagina. Even if it happens during a vaginal delivery, it is more likely to happen in a premature delivery.

Overall, this can be a beautiful sight to behold if a baby is born inside an unbroken amniotic sac. Also, there isn't much to do as the healthcare provider will

gently snip the amniotic sac to break it, so the baby can breathe the outside air.

Complications of Delivery | Premature Birth

- Keep baby warm
- Keep airway clear
- Provide ventilations and/or chest compressions
- Watch umbilical cord for bleeding
- Avoid contamination
- Call ahead to emergency department



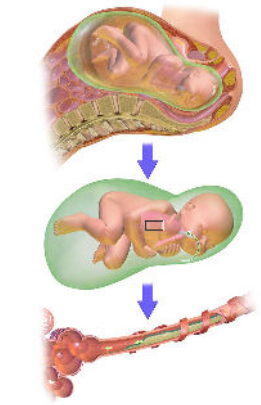
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Another fairly common complication is premature birth. In this delivery, the baby is born before the mother completes 37 weeks of pregnancy.
Babies born before full-term tend to be smaller and lighter, so be careful while handling them. As soon as the baby is born, wrap and swaddle it to keep it warm. Also, check the airways, and provide the required ventilations. Be prepared to do chest compressions if the baby is finding it hard to breathe. Next, check the umbilical cord for any signs of bleeding.

Above everything, avoid contamination and be ready to call the emergency department, in case of any complications.

Complications of Delivery | Meconium

- Stains amniotic fluid greenish or brownish yellow in color
- Vigorous neonates with good respiratory effort and muscle tone born through meconium stained amniotic fluid
  - ✓ Do not benefit from suctioning, Should stay with the mother to receive the initial steps of newborn care
  - ✓ Gentle clearing of meconium from the mouth and nose with a bulb syringe may be done if necessary
- Presence of fetal distress, poor muscle tone, respiratory compromise when born through meconium-stained amniotic fluid
  - ✓ Immediately initiate resuscitation efforts
  - ✓ Initiate PPV if heart rate less than 100/min



Meconium Aspiration Syndrome

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Though most babies pass meconium a few hours after birth, some babies pass it in the womb or during the delivery because of the stress it experiences inside. This meconium is mixed with the amniotic fluid, so there is a chance for the baby to inhale this mixture during delivery. This condition is known as meconium aspiration syndrome (MAS). While this is not a life-threatening situation, it can cause complications in the newborn baby, and in some rare cases, it can be fatal, especially if left untreated.

Know that neonates born with meconium do not benefit from suctioning and they must be kept with the mother during the first few hours of birth. Also, you may have to clean their nostrils with a bulb syringe. If the baby seems to have breathing troubles because of the inhaled meconium, start resuscitation efforts right away, and initiate PPV when the heart rate is less than 100 beats per minute.

STILLBIRTHS

- Do not resuscitate if it is obvious the baby died some time before birth
- Provide full resuscitation measures if baby is born in pulmonary or cardiac arrest
- Prepare to provide life support
- Provide emotional support for family



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Stillbirth is a condition where a baby has died some time before birth. In such cases, do not resuscitate, especially if you know for sure that the baby has died. On the other hand, if there was a pulmonary or cardiac arrest at the time of birth, provide all possible resuscitation efforts. At the same time, be prepared to provide vital life support for the baby. While doing all this, provide emotional support to the parents to help them tide through this difficult situation.

Video: Assisting with Childbirth Video | 9:26 | Separate Lesson



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So, that's the end of this chapter. Next is a video that shows how you can assist during the childbirth. Jason will be back with you after the video. Good Studying.