



Pregnancy Problems

- Gestational diabetes
- Preeclampsia
- Low amniotic fluid
- Infections during pregnancy
- Rh incompatibility
- Ectopic pregnancy
- Premature birth
- Miscarriage
- Stillbirth

COMPLICATIONS OF PREGNANCY

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Thanks Missah for explaining childbirth complications to us. In this lesson, we will be talking about possible pregnancy problems across all the three trimesters. So, let's get started.

Emergencies in Pregnancy

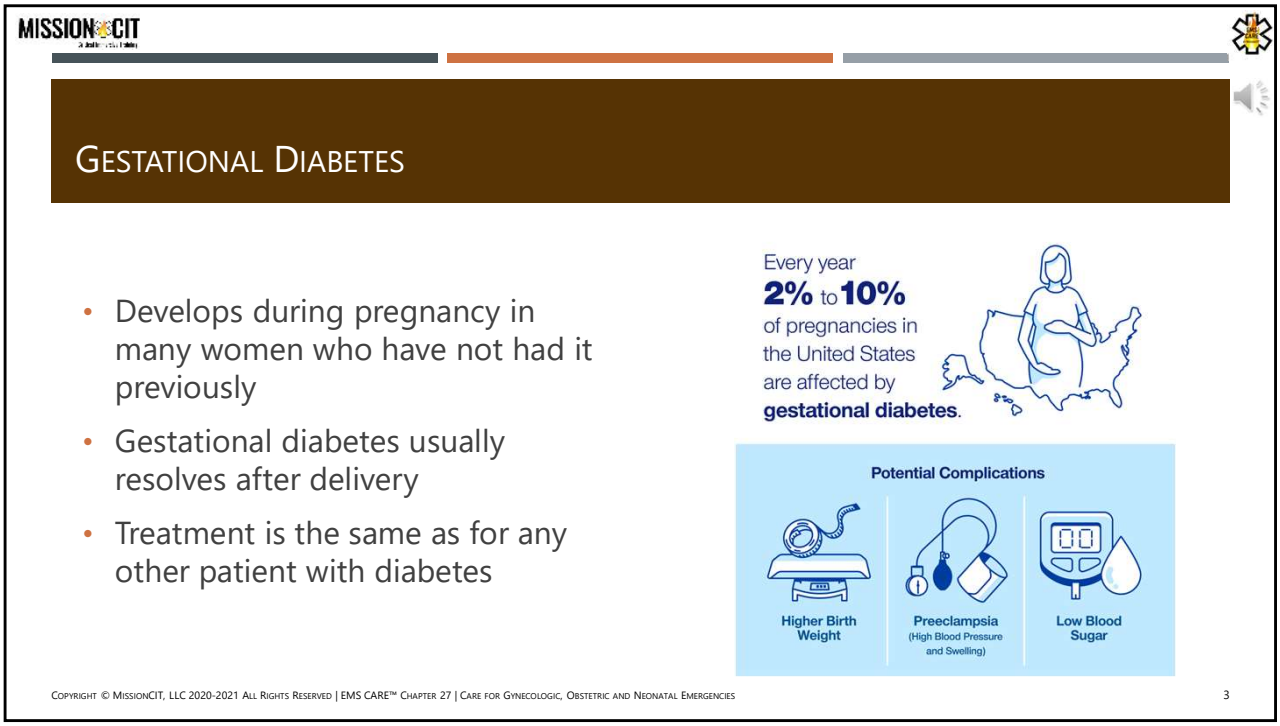
- Diabetes
- Hypertensive disorders
- Ectopic pregnancy
- Miscarriage and abortion
- Cardiac arrest of pregnant woman
- Abuse
- Substance Abuse
- Trauma and Pregnancy



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There are many possible complications in pregnancy, and some of the prominent ones are explained here.
Diabetes causes high blood sugar that can affect the baby's health.
Hypertensive disorders, where the mother has high blood pressure.
An ectopic pregnancy occurs when the fertilized egg gets implanted in the fallopian tubes instead of the womb.
Miscarriage is the loss of the baby before 20 weeks of gestation.
Abortion is the termination of pregnancy.

Cardiac arrest of pregnant women is when the mother's heart stops functioning and requires emergency treatment in the form of resuscitation.
Physical and mental abuse increases the risk of miscarriage, infection, premature death, and injury to the mother and the baby.
Substance abuse has a severe health impact on the unborn fetus, as the substances consumed by the mother reach the fetus through the placenta
Trauma and pregnancy – According to AFP, trauma is the leading non-obstetric cause of death among pregnant women and includes vehicle crashes, assaults, falls, and even intimate partner violence.
Next, we will see each of these complications in detail and the care required for each.



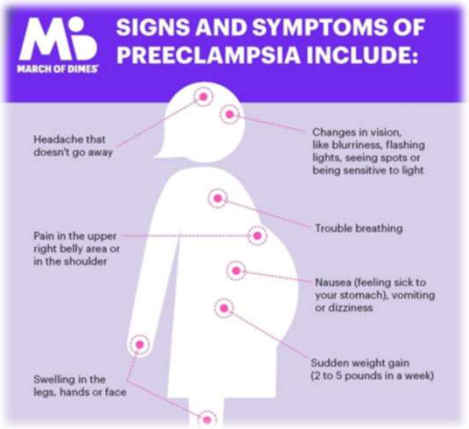
Gestational diabetes is a condition in which the blood sugar levels increase in pregnant women. It can occur even when a woman has not had diabetes before pregnancy. This condition affects the way glucose is used by the body's cells, and the presence of high levels of sugar, impact both the mother and the baby. Most times, women go back to normal glucose levels after delivery.

With gestational diabetes, there aren't any specific signs or symptoms, and the treatment is similar to what is

done for patients with regular diabetes.

Hypertensive Disorders

- Preeclampsia is a common complication
  - ✓ Pregnancy-induced hypertension
  - ✓ Can develop after the 20th week of gestation
- Eclampsia is characterized by seizures that occur as a result of hypertension
- Supine hypotensive syndrome



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Hypertensive disorders occur when the blood pressure of the mother becomes elevated. According to a paper in the Journal of Prenatal Medicine, this is the most common medical problem encountered in pregnancy, and typically affects about 2 to 3 percent of pregnant women.

Further, these hypertensive disorders are classified into five categories, and they are:

- Chronic hypertension, where high blood pressure precedes pregnancy, and is diagnosed within the first 20 weeks of gestation.

- The second type is gestational hypertension, which is also known as pregnancy-induced hypertension. This condition occurs after 2 weeks of pregnancy, and it is characterized by a systolic pressure that is higher than 140, and diastolic pressure greater than 90. In this condition, there is no protein in the urine.
- The third type of hypertensive disorder is preeclampsia, which is a multi-organ disease that is characterized by high blood pressure and the presence of protein in the urine. Like gestational hypertension, the systolic pressure is more than 140, while the diastolic pressure is more than 90. In addition, there is more than 0.3 grams of protein in the urine.
- The fourth complication is eclampsia, where a mother gets seizures as a result of hypertension. Sometimes, it can also occur unexpectedly in women with no elevated blood pressure or protein in the urine. This condition is an emergency, and the mother needs to be transported to a hospital right away. In the meantime, lay the patient on the left side, maintain her airway, and provide supplemental oxygen when needed.
- The last condition is called the supine hypotensive syndrome, which occurs due to the compression of the descending aorta and the inferior vena cava by

the uterus when the mother is lying in a supine position. This condition also requires the mother to be transported to the hospital, and while doing so, ensure that the mother is made to lie on her left side.

Thus, these are the common hypertensive disorders in pregnancy.

Seizures in Pregnancy

- Existing preeclampsia
- Elevated blood pressure
- Excessive weight gain
- Excessive swelling to face, ankles hands, and feet
- Altered mental status, headache, or other unusual neurologic findings



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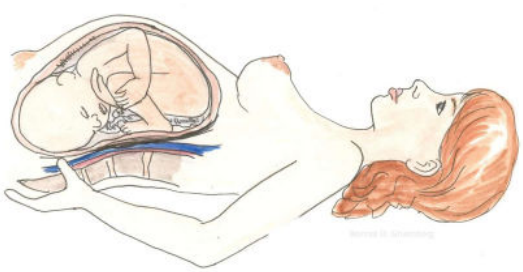
Eclampsia or seizures are a rare, but serious condition in pregnancies. These seizures mostly occur due to existing preeclampsia, elevated blood pressure and excess weight gain. Other symptoms include excess swelling on the feet, face, and ankles, nausea, vision problems, difficulty urinating, and pain in the right abdomen.

Sometimes, seizures can occur due to no reason at all, and this is characterized by altered mental status, headache, and other unusual neurological findings. Regardless of the underlying reason, a patient who has

eclampsia or is at risk for the same, has to be monitored closely, and medications must be administered when needed.

Supine Hypotensive Syndrome

- Placenta, infant, and amniotic fluid total twenty to twenty-four lbs
- When supine, mass compresses inferior vena cava
- Cardiac output decreases
- Dizziness and drop in blood pressure

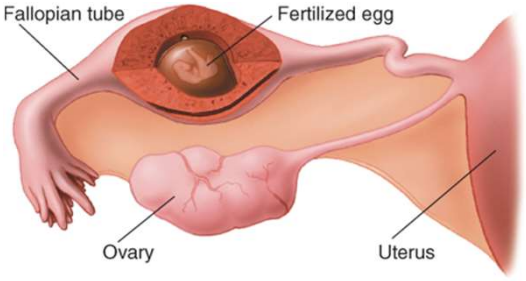


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In a supine hypotensive syndrome, the uterus compresses the aorta and inferior vena cava, when a woman is lying in the supine position. As a result, the cardiac output decreases by 30 to 40 percent, that in turn, leads to decreased venous return. Some common symptoms associated with this condition includes dizziness, low blood pressure, sweating, nausea, and increased heart rate. In severe cases, the mother can become unconscious. Remember, if the woman's gestation is past 24 weeks, she requires transportation, and should be immediately moved to the left lateral position.

Bleeding Disorders | Ectopic Pregnancy

- An embryo develops outside the uterus, most often in a fallopian tubes
- Internal hemorrhage risk
- Severe pain in lower abdomen
- Missed menstrual cycle may be an indicator
- Acute abdominal pain, can be referred to the shoulder
- Vaginal bleeding
- Rapid and weak pulse
- Low blood pressure
- Absent menstrual period



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An ectopic pregnancy is a condition in which the fertilized egg is implanted in the fallopian tubes, that lie outside the uterus. Besides the tubes, the fertilized egg can get implanted in other areas such as ovary, abdominal cavity, and the cervix. When the egg is present in the tubes, it is called a tubal pregnancy.

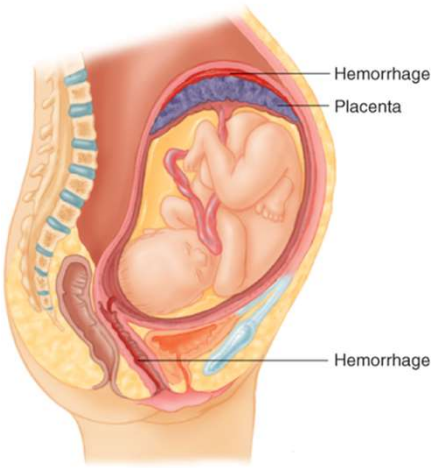
An ectopic pregnancy must be terminated because the egg cannot survive outside the uterus. Moreover, if left to grow, the fertilized egg can damage the organs, and can lead to a life-threatening situation.

Also, this condition can cause the fallopian tubes to split, that in turn, can lead to a lot of pain and bleeding. Sometimes, the loss of tube can impact the mother's ability to become pregnant again because the eggs travel through these tubes from the ovaries to the uterus.

Such pregnancies are accompanied by vaginal bleeding, severe abdominal or pelvic pain, lightheadedness, rapid and weak pulse, missed period, and shoulder pain.

Bleeding Disorders | Vaginal Bleeding

- Abruptio placenta: The placenta separates prematurely from the wall of the uterus
- Placenta previa: The placenta develops over and covers the cervix
- Spontaneous Abortion
- Miscarriage



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Heavy vaginal bleeding is one of the first signs that all is not well with the pregnancy. This is different from the light bleeding that many women may experience during the first few weeks of pregnancy, as this is when the fertilized egg implants itself in the wall of the uterus. This light bleeding should stop within a few days and there will be no pain associated with it.

Heavy bleeding, on the other hand, is a serious condition. In general, it can occur due to any of the following reasons.

The first possible reason is called abruptio placenta, where the placenta separates from the uterus before birth, thereby causing bleeding, pain, and contractions. The second possible reason is a condition called placenta previa, where the placenta attaches to the lower part of the uterus, and completely blocks the neck of the womb. In turn, this causes heavy bleeding.

Besides these two reasons, heavy vaginal bleeding can occur due to spontaneous abortion or a miscarriage. All these are serious conditions that require the mother to be hospitalized.

Miscarriage and Abortion

- Spontaneous or induced
- Cramping, abdominal pains
- Bleeding ranging from moderate to severe
- Noticeable discharge of tissue and blood from vagina
- Passage of the fetus and placenta before 20 weeks
- May be spontaneous or induced
- Most serious complications are bleeding and infection
- Treat for shock and transport promptly



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Miscarriage is a naturally occurring event, where all the products related to the fertilized egg, including the associated tissues, are removed from the body automatically. This occurs naturally, and hence, it is also known as spontaneous abortion.

An abortion, on the other hand, is a medical or surgical intervention, aimed to end the pregnancy.

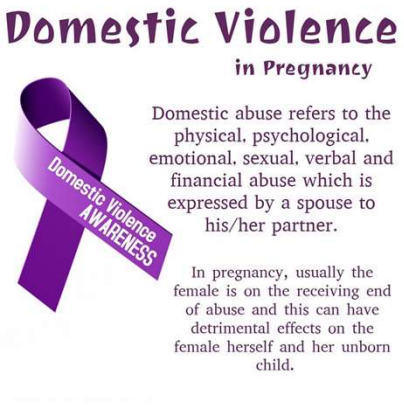
Now, from a physiological perspective, both miscarriage and abortion end the pregnancy and all the related tissues leave the body. During this time,

the mother may experience severe abdominal cramping and heavy vaginal bleeding as the tissues come out. If this event happens after 20 weeks of gestation, the fetus and the placenta may also come out through the vagina.

This is a serious medical condition, as there are chances for heavy bleeding and infection.

ABUSE

- Pregnant women have an increased chance of being victims of domestic violence and abuse
- Abuse increases the chance of:
  - ✓ Spontaneous abortion, Premature delivery, Low birth weight
- The woman is at risk from bleeding, infection, and uterine rupture
- Pay attention to the environment for any signs of abuse. Know the reporting requirements



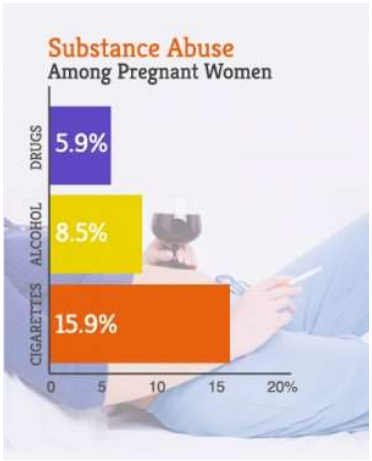
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Pregnant women have a higher chance of being victims of domestic abuse and violence, because of a host of reasons including intimate partner violence. In turn, this increases the chances of spontaneous abortion, premature delivery, and low birth weight. The mother is also at a high risk of bleeding and infection, and there is always the possibility of uterine rupture, if she has been subjected to physical abuse.
To protect the mother from such abuses, be wary of the signs, and talk to her about the environment at home. Also, stay on top of the reporting

requirements, and the local laws and protocols in this regard.

Substance Abuse

- Effects of addiction on the fetus include:
  - ✓ Prematurity
  - ✓ Low birth weight
  - ✓ Severe respiratory distress
  - ✓ Death
- Fetal alcohol syndrome
- Look for clues
- The newborn may need immediate resuscitation



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Substance abuse has a big impact on the fetus as the substances pass through the placenta to the fetus. It leads to premature delivery, low birth weight, severe respiratory distress, and even possible death. Also, newborn babies born to women who use substances may need immediate resuscitation.

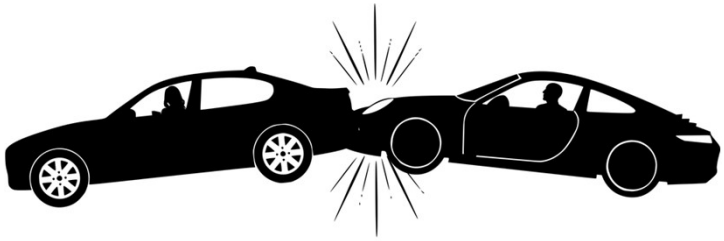
A common condition is the fetal alcohol syndrome that occurs in children whose mothers drank excess alcohol through their pregnancy. According to the CDC, this syndrome includes both physical

problems, as well as problems related to learning and behavior.

The best way to avoid this situation is to counsel the mother about the harmful effects of substance abuse, and provide the right support to help her overcome it. Look for clues of abuse while handling such women. Some of the indicators include the presence of the paraphernalia drug and empty liquor bottles. Understand the local protocols and laws related to substance abuse and report to the concerned authorities when needed.

Trauma & Pregnancy

- Two patients – Woman & Unborn fetus
- Increased heart rate and blood volume
- Significant blood loss
- Motor Vehicle Injuries
- Blood loss may be 30 to 35 percent before
- Blows to abdomen



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According to the Mayo Clinic, trauma is the leading non-obstetric cause of death in women, and it occurs typically in the third trimester. Out of these, motor vehicle crashes account for 50 percent of the total deaths that fall in this category, while falls due to instability affect another 22 percent. Most times, the trauma is accidental or unintentional.

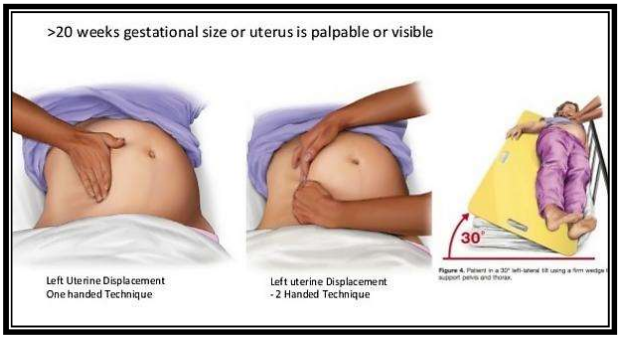
In the event of a fall, placental abruption occurs, where the placenta is sheered away from the uterine wall, thereby leading to the death of the fetus. Besides accidental falls, uterine ruptures can lead to

the death of both the mother and the child.

You're dealing with two patients here, the mother and the child, and you will have to do your best to save both of them. In the case of a fall, check if there was a significant amount of blood loss. Also, watch out for any signs of shock. Remember, that a pregnant patient's pulse is 10 to 15 times faster than non-pregnant women, so in the event of an injury, the mother can lose about 30 to 35 percent of blood, before symptoms show up. Further, check if the woman has abdominal pain or received any blows in the abdominal area and reach out to Advanced Life Support if the condition is serious.

Cardiac Arrest In Pregnant Woman

- Chance to save unborn child
- Begin CPR on mother immediately
- Displace uterus if more than 20 weeks
- Position well
- Continue CPR



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Though cardiac arrest is rare in a pregnant woman, it is still a possibility. When this happens, do your best to save the mother first by starting the CPR immediately. Position your hands 1 to 2 inches higher on the sternum to make up for the shifting of the heart due to the large uterus. And if everything fails, look to save the unborn child.

To do this, check if the gestation is more than 20 weeks, and if so, prepare for an emergency caesarean operation to remove the child from the womb. Continue to provide CPR until the woman is

in an emergency room or until the caesarean surgery has started.

With this, we have come to the end of this lesson, and Missah will take you through the next.