



HUMAN REPRODUCTION

PREGNANCY COMPLICATIONS



Complications Of Pregnancy

- Complications of pregnancy are health problems that occur during pregnancy.
- They can involve the mother's health, the baby's health, or both
- Some women have health problems that arise during pregnancy, and other women have health problems *before* they become pregnant that could lead to complications.
- It is very important for women to receive health care before and during pregnancy to decrease the risk of pregnancy complications.

- Complications due to pregnancy includes:

- Anemia.
- Antepartum Hemorrhage.
 - Placenta Praevia.
 - Placental Abruption.
- Breech Position
- Cardiac Disease
- DM
- Ectopic Pregnancy
- Fibroids
- Genital Herpes
- Gestational Diabetes
- Intrauterine Death
- HIV
- Intrauterine Growth Retardation
- Multiple Pregnancies
- Oligohydramnios
- Polyhydramnios
- Pregnancy-induced Hypertension
 - Pre eclamsia
 - Eclamptic Toxaemia
 - Eclampsia
- Sickle Cell Disease
- Thalassaemias
- Unstable Lie, Transverse Lie



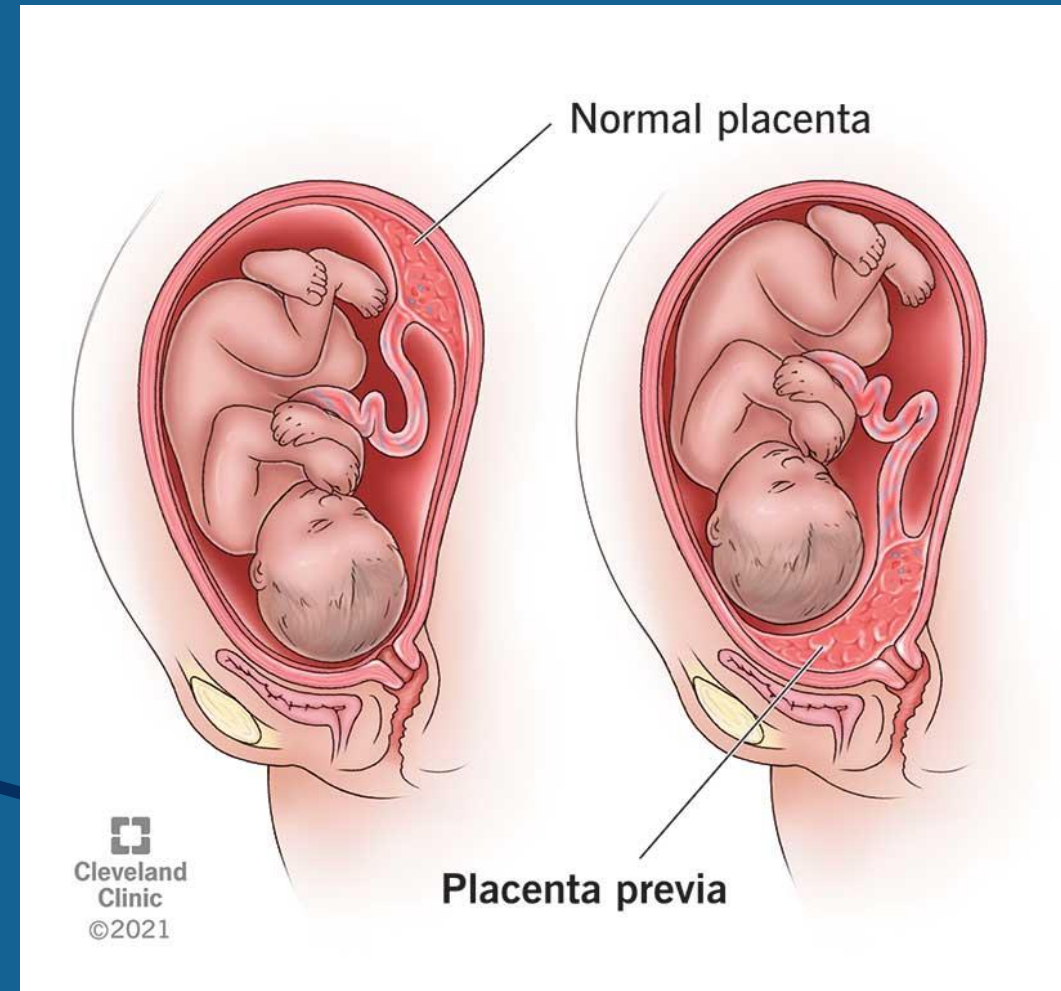
Anemia

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- Anaemia is very common in pregnancy, occur when body doesnot get enough nutrients
- During pregnancy, anemia is defined as hemoglobin (hb) < 10 g/dl (hct < 30%).
- 4 types of anemia can be seen during pregnancy:
 - Dillutional anemia of pregnancy
 - Iron deficiency anemia
 - Folate-deficiency anemia
 - Vitamin B12 deficiency
- The majority of those with mild anaemia are asymptomatic or may feel tierdness or weakness as the haemoglobin levels fall, pallor, dyspnoea and oedema are more likely
- If it is severe and goes untreated, it can increase risk of serious complications like preterm delivery

Placenta previa is a problem of pregnancy in which the placenta grows in the lowest part of the womb (uterus) and covers all or part of the opening to the cervix. The placenta grows during pregnancy and feeds the developing baby. The cervix is the opening to the birth canal.

Placenta previa is a condition during pregnancy where the placenta blocks all or part of your baby's exit from your vagina. The most common symptom is vaginal bleeding in the second half of pregnancy. People with placenta previa typically need a C-section delivery.



What are the types of placenta previa?

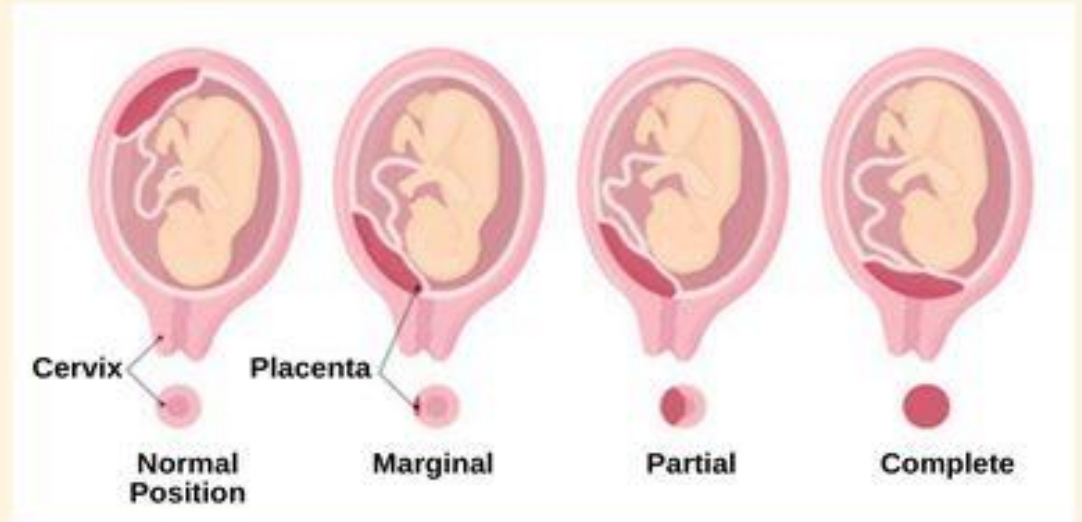
There are several types of placenta previa:

- **Marginal placenta previa:** The placenta is positioned at the edge of your cervix. It's touching your cervix, but not covering it. This type of placenta previa is more likely to resolve on its own before your baby's due date.

- **Partial placenta previa:** The placenta partially covers your cervix.

- **Complete or total placenta previa:** The placenta is completely covering your cervix, blocking your vagina. This type of placenta previa is less likely to correct itself.

Types of Placenta Previa



Certain factors can heighten an individual's susceptibility to placenta previa. These include:

- Advanced Maternal Age
- Previous Placenta Previa
- Multiple Pregnancies
- Previous Cesarean Sections
- Smoking During Pregnancy
- In Vitro Fertilization (IVF)

What Causes Placenta Previa?

While the exact cause of placenta previa isn't clear, understanding both the potential causes and risk factors provides an idea of who may be at risk. It may be connected to several key factors, including:

Placental Positioning: The location of the placenta within the uterus plays a significant role in placenta previa. In cases where the placenta attaches to the lower portion of the uterus, closer to the cervix, the risk of placenta previa increases.

Uterine Shape: An unusually shaped uterus, whether congenital or due to factors such as fibroids, can contribute to placenta previa. These irregular uterine shapes can disrupt the normal implantation of the placenta.

Uterine Scarring: Scar tissue within the uterine cavity resulting from prior surgeries or procedures, such as a previous cesarean section or dilation and curettage (D&C), can elevate the risk of placenta previa. These scars may alter the ability of the uterus to accommodate the placenta properly.

Diagnosis And Management

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□ Diagnosis

- Prenatal ultrasound



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□ Management

- Main goal of management is to plan and prevent preterm birth and maternal bleeding
 - Corticosteroids some time given to enhance fetal lung development
 - For minor bleeding :
 - Bed rest is sufficient
 - For major bleeding:
 - Blood products and intravenous fluids are given
- For severe cases where fetal heart rate tracing shows sounds of fetal hypoxia immediate cesarean section performed

Breech Position

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- A **breech birth** is when a baby is born bottom first instead of head first.
- Around 3–5% of pregnant women at term (37–40 weeks pregnant) have a breech baby.
- breech births are generally considered higher risk.
- Most babies in the breech position are born by a caesarean section because it is seen as safer than being born vaginally.



Breech Baby: What Are The Causes?

There is no explicit cause for breech baby birth. However, certain conditions that might trigger a baby to breech are mentioned below:

- Abnormal level of amniotic fluid, either it's very low or it's too much.
- Low lying placenta which is covering the cervix partially.
- If the woman is heading towards premature delivery.
- Pregnant with more than one baby.
- The shape of the uterus might be a bit abnormal.

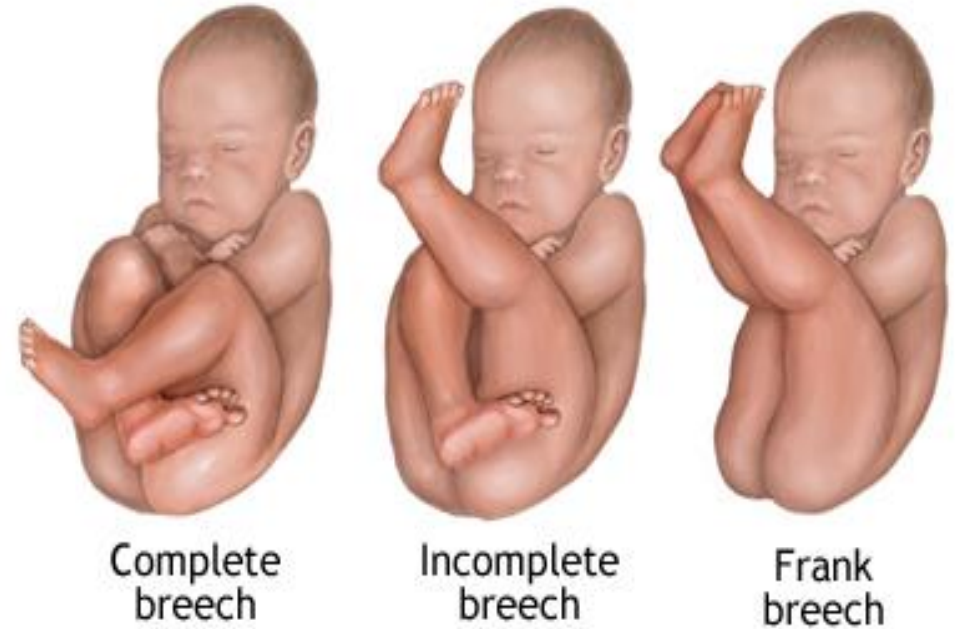
Why Is Breech Birth Difficult?

Breech birth through the vaginal section is a bit difficult and can lead to some complications. After all, the big part of the baby, i.e. the head is going to come out last. Hence, a C-section might be advised by doctors.

VARIETIES

- In **frank** breech, the hips are flexed with extended knees bilaterally.
- In **complete** breech, both hips and knees are flexed.
- In **footling** breech, 1 (**single** footling breech) or both (**double** footling breech) legs are extended below the level of the buttocks.

Variations of the breech presentation



High blood pressure

High blood pressure occurs as a result of narrowed arteries (responsible for carrying blood from the heart to organs) and the placenta. During pregnancy, high blood pressure causes several complications like preterm delivery and preeclampsia. It is highly imperative to control your blood pressure to avoid pregnancy complications.

Complications from high blood pressure for the mother and infant can include the following: For the mother: preeclampsia, eclampsia, stroke, the need for labor induction (giving medicine to start labor to give birth), and placental abruption (the placenta separating from the wall of the uterus).

What can I do to reduce the risk of complications?

Taking good care of yourself is the best way to take care of your baby. For example:

- **Keep your prenatal appointments.** Visit your health care provider on a regular basis throughout your pregnancy.
- **Take your blood pressure medication and low-dose daily aspirin as prescribed.** Your health care provider will prescribe the safest medication at the most appropriate dose.
- **Stay active.** Follow your health care provider's recommendations for physical activity.
- **Eat a healthy diet.** Ask to speak with a dietitian if you need help planning meals.
- **Know what's off-limits.** Avoid smoking, alcohol and illegal drugs. Talk to your health care provider before taking nonprescription medications.

What are the types of high blood pressure during pregnancy?

Sometimes high blood pressure begins before pregnancy. In other cases, the condition develops during pregnancy.

- Chronic hypertension.** In chronic hypertension, high blood pressure develops either before pregnancy or during the first 20 weeks of pregnancy. Because high blood pressure usually doesn't have symptoms, it might be hard to know exactly when it began.

- Chronic hypertension with superimposed preeclampsia.** This condition occurs when chronic hypertension leads to worsening high blood pressure during pregnancy. People with this condition may develop protein in the urine or other complications.

- Gestational hypertension.** People with gestational hypertension have high blood pressure that develops after 20 weeks of pregnancy. There's no excess protein in the urine and there are no other signs of organ damage. But in some cases, gestational hypertension can eventually lead to preeclampsia.

- Preeclampsia.** Preeclampsia occurs when hypertension develops after 20 weeks of pregnancy. Preeclampsia is associated with signs of damage to other organ systems, including the kidneys, liver, blood or brain.

How will you know if I develop preeclampsia?

In addition to high blood pressure, other signs and symptoms of preeclampsia include:

- Extra protein in the urine or other signs of kidney problems
- Severe headaches
- Changes in vision, including temporary loss of vision, blurred vision or being sensitive to light
- Upper stomach pain, usually under the ribs on the right side
- Nausea or vomiting
- Decreased levels of platelets in the blood
- Impaired liver function
- Shortness of breath, caused by fluid in the lungs



Gestational diabetes

According to a report by the Centers for Disease Control and Prevention, 6% to 9% of women develop gestational diabetes. Diabetes tends to occur when your body fails to process the sugars effectively. Thus, this multiplies the degrees of sugar in the bloodstream, which record to be very high as compared to normal levels.

Few pregnant women are recommended to put strict control on their diet. While some have insulin to keep their glucose levels in charge. Thus, to give birth to a healthy baby, taking mandatory precautions are more important than ever.



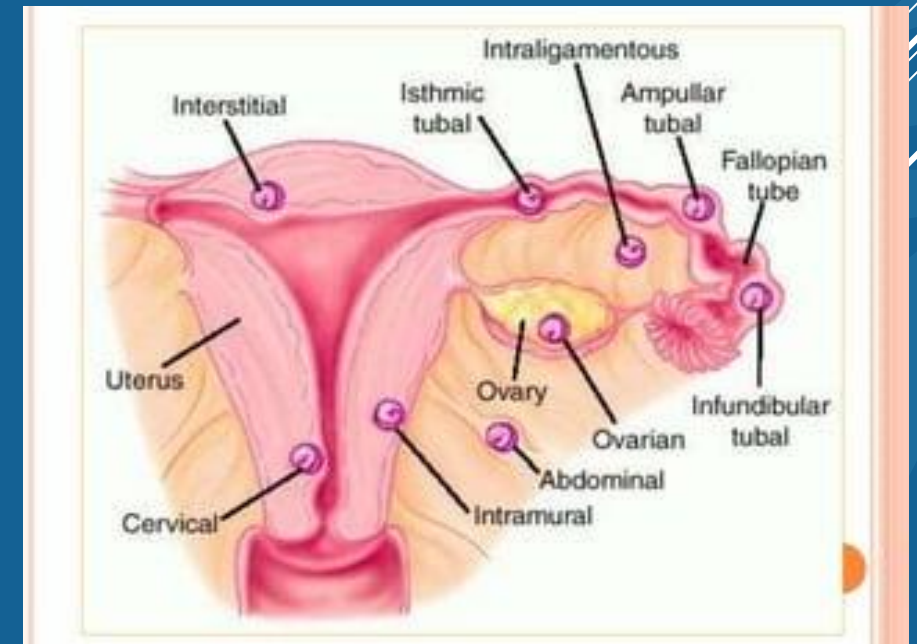
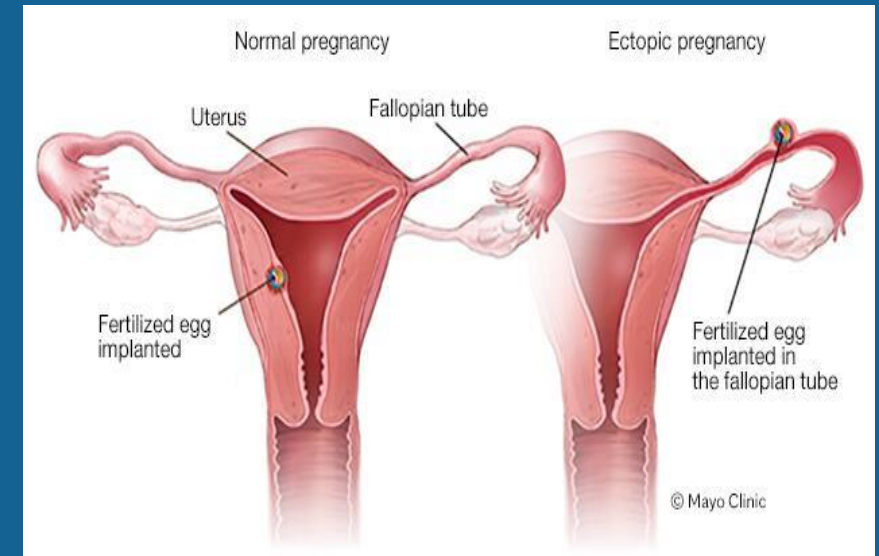
Gestational diabetes is associated with a number of maternal complications

- Pre-eclampsia
- Polyhydramnios
- Prolonged labour
- Obstructed labour
- Caesarean Section
- Uterine atony
- Postpartum haemorrhage
- Infection

An ectopic pregnancy is when a fertilized egg implants itself outside of the womb, usually in one of the fallopian tubes. The fallopian tubes are the tubes connecting the ovaries to the womb. If an egg gets stuck in them, it won't develop into a baby and your health may be at risk if the pregnancy continues.

Pregnancy begins with a fertilized egg. Normally, the fertilized egg attaches to the lining of the uterus. An ectopic pregnancy occurs when a fertilized egg implants and grows outside the main cavity of the uterus.

An ectopic pregnancy most often occurs in a fallopian tube, which carries eggs from the ovaries to the uterus. This type of ectopic pregnancy is called a tubal pregnancy. Sometimes, an ectopic pregnancy occurs in other areas of the body, such as the ovary, abdominal cavity or the lower part of the uterus (cervix), which connects to the vagina. An ectopic pregnancy can't proceed normally. The fertilized egg can't survive, and the growing tissue may cause life-threatening bleeding, if left untreated.



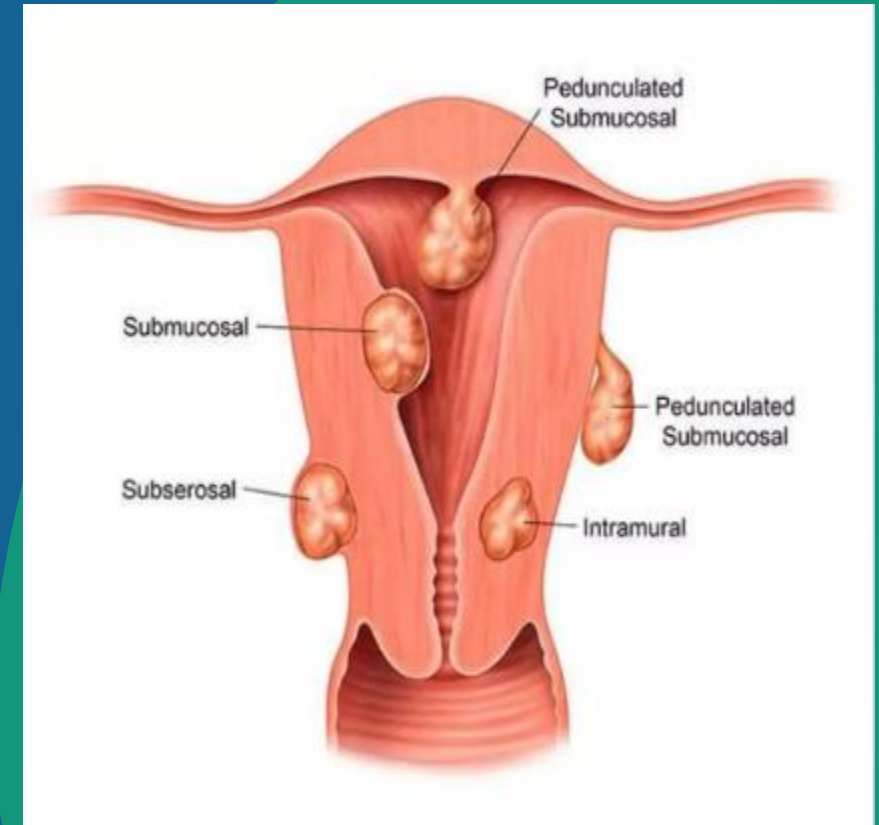
Risk Groups of Ectopic Pregnancy

Every woman who is sexually active faces some risk of an ectopic pregnancy. Risk factors increase with any of the following:

- 35 years or older mothers
- History of multiple abortions, abdominal surgery, or pelvic surgery
- History of pelvic inflammatory disease (PID)
- History of endometriosis
- Pregnancy facilitated by fertility treatments such as in-vitro fertilization or medications
- Pregnancy in spite of tubal ligation or an intrauterine device (IUD)
- Tried to have tubal ligation (tubes tied) or tubal ligation reversal
- Fertility drugs
- Smoking
- Having a history of sexually transmitted diseases (STDs), such as gonorrhea or chlamydia
- Having structural abnormalities with the fallopian tubes that make it difficult for the egg to migrate
- Past ectopic pregnancy

Fibroid

- Fibroids are non-cancerous growths that develop in or around the uterus.
- The growths are made up of muscle and fibrous tissue, and vary in size. They're sometimes known as uterine myomas or leiomyomas.
- Fibroids usually develop during a woman's reproductive years (from around the age of 16 to 50) when oestrogen levels are at their highest.
- They tend to shrink when oestrogen levels are low, such as after the menopause



Symptoms

- In some cases they are asymptomatic, but some may experience symptoms which include:
 - Heavy periods or painful periods
 - Abdominal pain
 - Low back pain
 - Urinary frequency
 - Constipation
 - Pain or discomfort during sex
- In rare cases, further complications caused by fibroids can affect pregnancy or cause infertility.

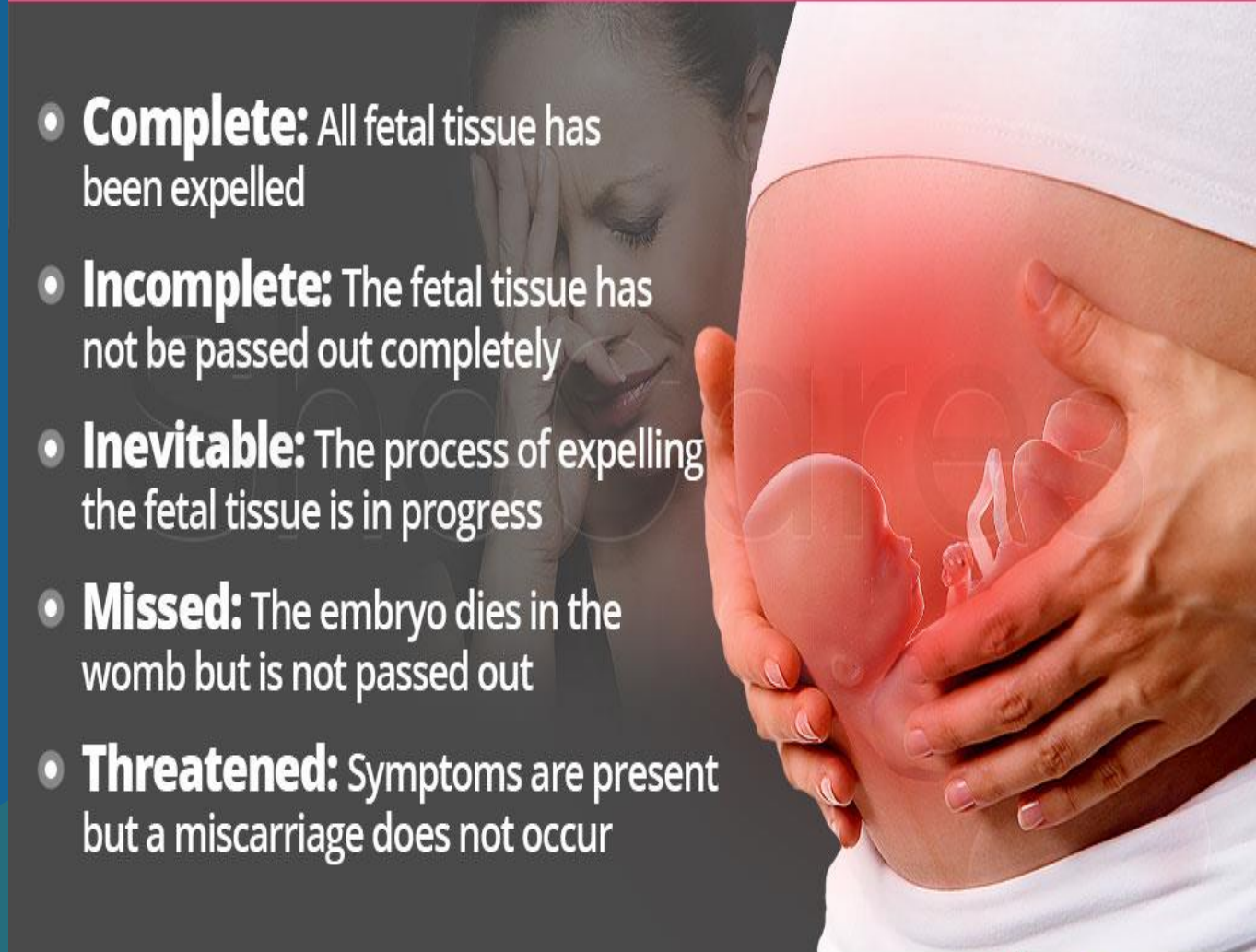
Miscarriage or pregnancy loss

A very horrific but common misery that pregnant women fear is a miscarriage. Losing the baby during the first 20 weeks of pregnancy refers to miscarriage. When a baby's organs, especially the lungs and brain, have stopped developing, it leads to pregnancy loss.

Reasons for miscarriage may vary from patient to patient. Sometimes the woman may be unaware of her pregnancy and end up losing the baby in the initial stages. However, in some cases, health disorders, accidents, traumas, or poor diet become reasons for miscarriage.

Types of Miscarriages

- **Complete:** All fetal tissue has been expelled
- **Incomplete:** The fetal tissue has not been passed out completely
- **Inevitable:** The process of expelling the fetal tissue is in progress
- **Missed:** The embryo dies in the womb but is not passed out
- **Threatened:** Symptoms are present but a miscarriage does not occur



Stillbirth

A stillbirth is when a baby is born dead after 24 completed weeks of pregnancy

Another highly reported complication that patients come up with during pregnancy is a stillbirth. It refers to the pregnancy loss that tends to occur after 20 weeks of pregnancy. However, most of the time, the underlying cause for stillbirth remains undefined.

But here are some common reasons found in the patients who suffered from stillbirth:

- Infections
- Issues with placenta
- Other chronic health issues

Signs and Symptoms of Stillbirth

The death of a baby in the womb does not always produce obvious symptoms, but it can generally be recognized by:

- **Decreased baby's movement**
- **Fluid leakage from the vagina**
- **Unusual discharge or bleeding**



Infection

Another complication quite prevalent among pregnant women that may muddle a pregnancy is bacterial, viral, and parasitic diseases. Diseases can be unsafe for both the mother and the child, so it's essential to look for treatment immediately.

The most common infections include:

- Urinary tract infection
- Bacterial vaginosis
- Cytomegalovirus
- Group B Streptococcus
- Hepatitis B virus may pass to your baby while giving birth
- Influenza
- Toxoplasmosis (a disease caused by a parasite found in raw meat, soil, and cat feces)
- Zika virus

Signs and Symptoms of Infections during Pregnancy

- Fever
- Pain, muscles aches, fatigue
- Swollen lymph nodes
- Coughing and chest tightness
- Nausea, vomiting, or diarrhea
- Heat at the site of infection
- Redness, rash, swelling, or pus





THANK YOU