



- **Multiple gestation:**

- **Definition:** the presence of more than one fetus in the mother (twins, triplets, quadruplets... etc).

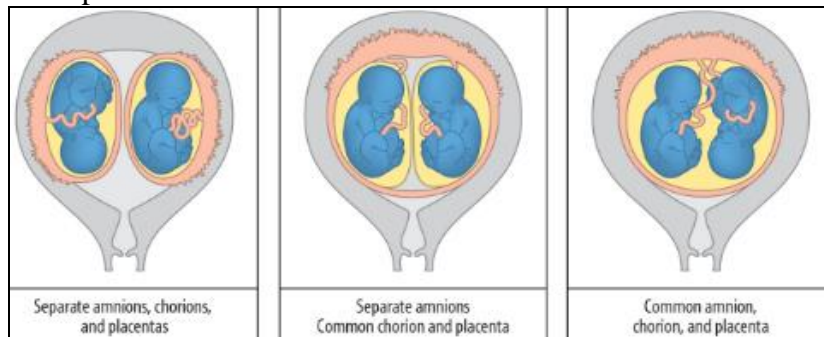
- **Twins: they are divided into**

- ✓ Monozygotic (identical: the incidence is 1:250): one ovum fertilized by one sperm and then division of the fertilized egg will start.

- ❖ *Notice that with monozygotic twins there is increased risk of morbidity and mortality because both babies are sharing the same placenta.*

- ❖ **Monozygotic division:**

- 0-3 days: will result in 2 sacs, 2 amnions, 2 membranes and 2 placentas (resembling dizygotic twins).
    - 3-5 days: will result in 2 sacs, amnions and 1 chorion (which means that both babies will share the same placenta).
    - 5-8 days: will result in 2 fetuses in the same sac and sharing the same placenta.



- > 13 days: conjoined twins (Siamese twins):

- They are identical twins joined in utero.
      - This occurs due to fission (which means that a fertilized egg will split partially).
      - Conjoined twins share a single common placenta and amniotic sac.



- ✓ Dizygotic (non-identical: the incidence is 1:80): two ova fertilized by two sperms and then division of the fertilized egg will start.

- **What are the factors predisposing a female to have twins?**

- A family history of dizygotic twins.
- Assisted reproductive techniques (IVF centers).
- Race and ethnicity: more common in black people (Africans).
- Multi-parity.
- Prior use of oral contraceptives.

- **What is the most serious issue that doctors worry about when a female becomes pregnant with twins?**

- **Pre-term delivery (< 37 weeks):** most of the time delivery would occur at around 27<sup>th</sup>-28<sup>th</sup> gestational weeks and the babies will suffer from many problems such as Respiratory Distress syndrome (RDS) or retinopathy.

- **Other complications associated with twins are:**

- ✓ Spontaneous abortion.

- ✓ Increased anomalies.

- ✓ Umbilical cord prolapse:

- ❖ It occurs when the umbilical cord comes out of the uterus with or before the presenting part of the fetus.

- ❖ It is more common in women who have had rupture of their amniotic sac.

- ❖ Pressure on the cord from the fetus will cause cord compression that compromises blood flow to the fetus.

- ❖ Therefore, it is considered as a possibility when there is a sudden decrease in fetal heart rate or variable decelerations, particularly after the rupture of membranes.

- ❖ Management: quick delivery which requires a caesarean section.

- ✓ Intra-Uterine Growth Restriction (IUGR):

- ❖ *Discordant growth:* when birth weight discordance (الإختلاف) exceeds 20%, one of the fetuses will be growth-restricted in more than 50% of cases. Causes include:

- Constitutional factors such as genetic dissimilarity of dizygotic twins.

- Local placental implantation factors.



- What problems are associated with pre-maturity?

- **Neurological problems.**

- **Cardiovascular complications:** patent ductus arteriosus (PDA: it allows a portion from the oxygenated blood from the left heart to flow back to the lungs by flowing from the aorta -which has higher pressure- to the pulmonary artery).

- **Respiratory problems:** Respiratory Distress Syndrome (RDS: caused by developmental insufficiency of surfactant production and structural immaturity in the lungs).

- **Gastrointestinal and metabolic issues:** neonatal hypoglycemia.

- **Hematologic complications:** anemia of prematurity, thrombocytopenia and hyperbilirubinemia (jaundice) that can lead to kernicterus.

- **Infections which include:** sepsis, pneumonia and UTIs.

- How would you know if a female is being pregnant with twins only from the history?

- Exaggerated nausea and vomiting.

- Previous family history.

- Increased size of the abdomen.

- How to manage multiple gestations?

- Reassure the patient.

- Treat morning sickness (frequent small meals and reduced fluid intake). If this doesn't work, give anti-emetic (IV).

- In the first 12 weeks of gestation, you give folic acid to the patient. After 12 weeks, you can give the patient iron supplement (but not before that time because it increases nausea and vomiting).

- You have to check if the mother is diabetic: due to the presence of two placentas, there will be increased human placental lactogen secretion.