



- **Definition:** carbohydrate intolerance of variable severity with onset/ 1<sup>st</sup> recognition during pregnancy.
- **Screening for GDM is done between 24-28 weeks because diabetogenic hormones are markedly increased during the 3<sup>rd</sup> trimester of pregnancy.**
- **Incidence of GDM:**
  - **Bahrain:** 13% GDM.
  - **Whole population:** 22% DM.
- **Physiologic changes of carbohydrate metabolism during pregnancy:**
  - **There is insulin resistance due to increased placental diabetogenic hormones in the 3<sup>rd</sup> trimester of pregnancy. These hormones include:**
    - ✓ human Placental Lactogen (hPL: being most important).
    - ✓ Estrogen.
    - ✓ Progesterone.
    - ✓ Insulinase.
- **Increased blood glucose level in the mother → fetal hyperglycemia → compensated by fetal hyperinsulinemia → resulting in fetal complications such as:**
  - **Intrauterine Fetal Death (IUFD):** due to chronic hypoxia.
  - **Macrosomia:** which is defined as
    - ✓ > 4kg in non-diabetic woman.
    - ✓ >4.5 kg in diabetic woman.
  - **Fat deposition in trunk and shoulders resulting in shoulder dystocia during delivery.**
  - **Fetal congenital anomalies:**
    - ✓ Cardiac anomalies (most common): such as VSD or ASD.
    - ✓ Sacral agenesis.
  - **Polyhydramnios:** which might result in malpresentation, non-engagement and ↑ incidence of CS.
  - **Polycythemia.**
  - **Respiratory Distress Syndrome (RDS).**
- **Screening of GDM (24-28 weeks):**
  - 50g glucose load test.
  - Measuring blood sugar level after 1 hour.
  - Done for low-risk groups.
  - Positive test is considered when blood sugar level is > 7.8 mmol/L
- **When screening test is positive → definitive diagnosis of diabetes is done GTTP (75g glucose):**
  - Measuring blood sugar level at 1, 2 and 3 hours.
  - Done for high-risk groups.
- **Maternal risks associated with GDM:**
  - Hypertension (HTN).
  - ↑ Cesarean Section (CS).
  - Cephalopelvic disproportion.
  - ↑ risk of developing type-II DM within 15 years.
- **Management of a pregnant lady with GDM:**
  - **First start with lifestyle modifications:** diet, exercise, frequent glucose monitoring → if this doesn't work place the patient on insulin injections.
  - **Delivery:**
    - ✓ **GDM on diet:** induction at 40 weeks.
    - ✓ **GDM on insulin:** induction at 38 weeks.