GESTATIONAL DIABETES: FROM BABY BUMPS TO BUMPS IN BLOOD SUGAR

ADA gestational diabetes mellitus (GDM) definition[1]: "Diabetes diagnosed in the 2nd or 3rd trimester of pregnancy that was not clearly overt diabetes prior to gestation."

Pathophysiology[2,3]

- Placenta produces hormones (eg, estrogen, cortisol, placental lactogen)
- Contra-insulin effect: hormones counteracting insulin (20 – 24 wk gestation)
- Placenta grows → increase in hormone production → **insulin resistance increases**
- Insufficient insulin in relation to placental hormones leads to **GDM**

Prevalence[4]: Affects 2 – 10% of pregnancies every year

Risk Factors for Developing GDM[5]

- History of GDM
- Family history of T2DM
- Have given birth to a baby who weighed >9 lbs
- Overweight
- >25 years old
- PCOS
- African American, Hispanic, American Indian, Alaska Native, Native Hawaiian, or Pacific Islander

Diagnosis[1,6]

2 – STEP STRATEGY

1) Nonfasting 50 gram 1 – hour OGTT
2) If level ≥ 130 – 140 mg/dL → 3 – hour 100 gram OGTT

GDM diagnosis – **2 of 4 plasma glucose levels are met:**

Fasting: ≥ 95 mg/dL
1 h: ≥ 180 mg/dL
2 h: ≥ 155 mg/dL
3 h: ≥ 140 mg/dL

Glycemic Targets & Monitoring[1,6]

- Fasting and postprandial readings (either 1-h or 2-h)

GOAL HOME BLOOD GLUCOSE VALUES	
Fasting	<95 mg/dL
1-hour postprandial	<140 mg/dL
2-hour postprandial	<120 mg/dL

Treatment Recommendations[1,6,7]

	2023 ADA & 2018 ACOG	2018 SMFM
INSULIN	**1st line therapy**	**1st line therapy**
METFORMIN	**Alternative** after risk discussion	"Reasonable and safe first-line pharmacologic **alternative** to insulin"
GLYBURIDE	**Alternative** after risk discussion	Neonatal effects **raise concerns**; **Evidence** of benefit of one oral agent over the other remains **limited**

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