PIPADOR REVISION

MRCOG Part 1 Revision Notes

Fetal Wellbeing Test Results

DATA INTERPRETATION • LECTURE 452

VISUAL EXAMINATION REVISION NOTES

2026 Edition

452

MRCOG PART 1 REVISION NOTES | DATA INTERPRETATION

Fetal Wellbeing Test Results

Definitions and interpretation of CTG, computerised CTG, Doppler and BPP — with worked cases

110–160	5–25	STV > 3 ms	AEDF/REDF
Baseline (bpm)	Variability (bpm)	Reassuring cCTG	Severe placental dysfunction

■ KEY FACTS: Learning objectives

- Define the CTG features (baseline, variability, accelerations, decelerations, contractions) and antenatal tests (cCTG STV, Doppler, BPP).
- Interpret CTGs and antenatal wellbeing tests using a structured approach.
- Apply interpretation to worked clinical scenarios.

452.1 Key definitions

Term	Definition / normal
Baseline fetal heart rate	Mean FHR over 10 min excluding accelerations/decelerations — 110–160 bpm
Variability	Fluctuation in FHR around the baseline — 5–25 bpm normal
Acceleration	Transient rise ≥ 15 bpm lasting ≥ 15 s — sign of a healthy fetus
Early deceleration	Mirrors the contraction (head compression) — benign
Variable deceleration	Abrupt drop, variable timing/shape (cord compression)
Late deceleration	Nadir AFTER the contraction peak (uteroplacental insufficiency)
Prolonged deceleration	Drop lasting > 3 minutes
Tachysystole	> 5 contractions in 10 minutes
Short-term variation (STV)	• Computerised CTG (Dawes–Redman) measure • < 3 ms concerning (< 2.6 ms at 29–32 wk in FGR)
Biophysical profile (BPP)	Breathing, movements, tone, liquor ± CTG — each 2 points (8–10 normal)

■ IN PLAIN ENGLISH: CTG

A healthy, well-oxygenated fetus has a **normal baseline, good variability and accelerations**. Hypoxia shows as **rising baseline, falling variability and late or worsening decelerations** — always interpret with the clinical picture.

452.2 CTG features

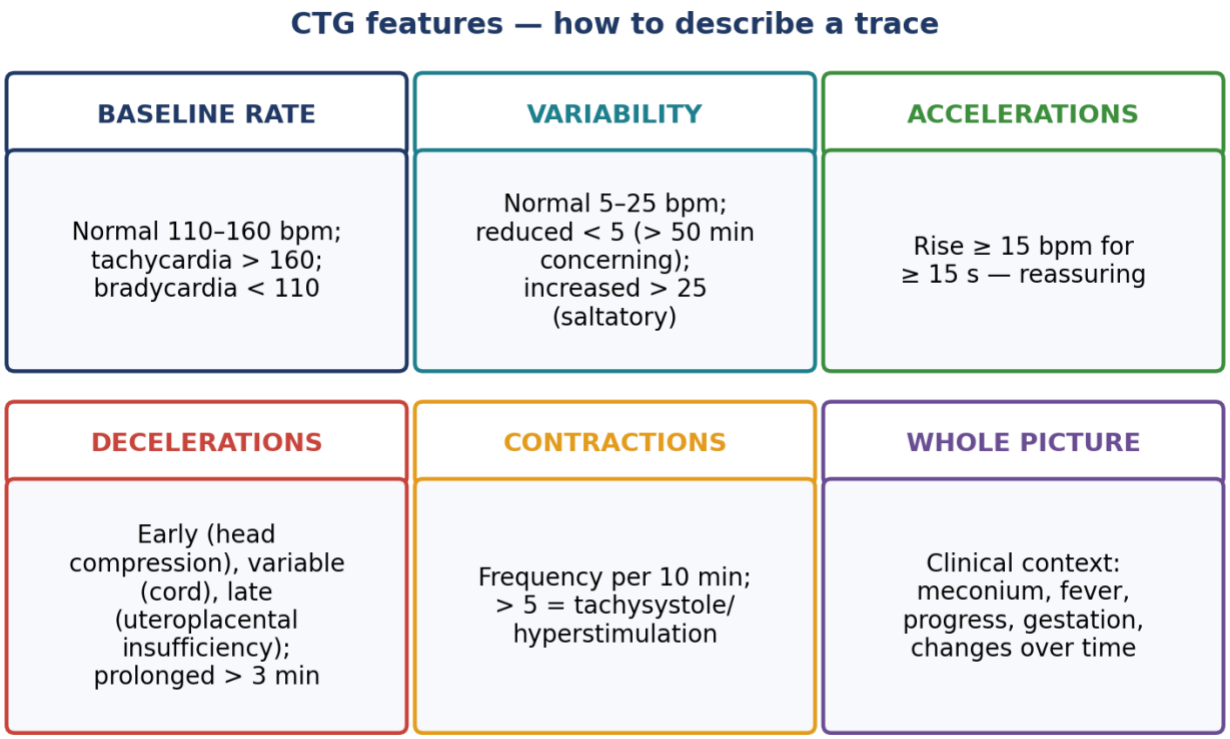


Figure 452.1 — CTG features

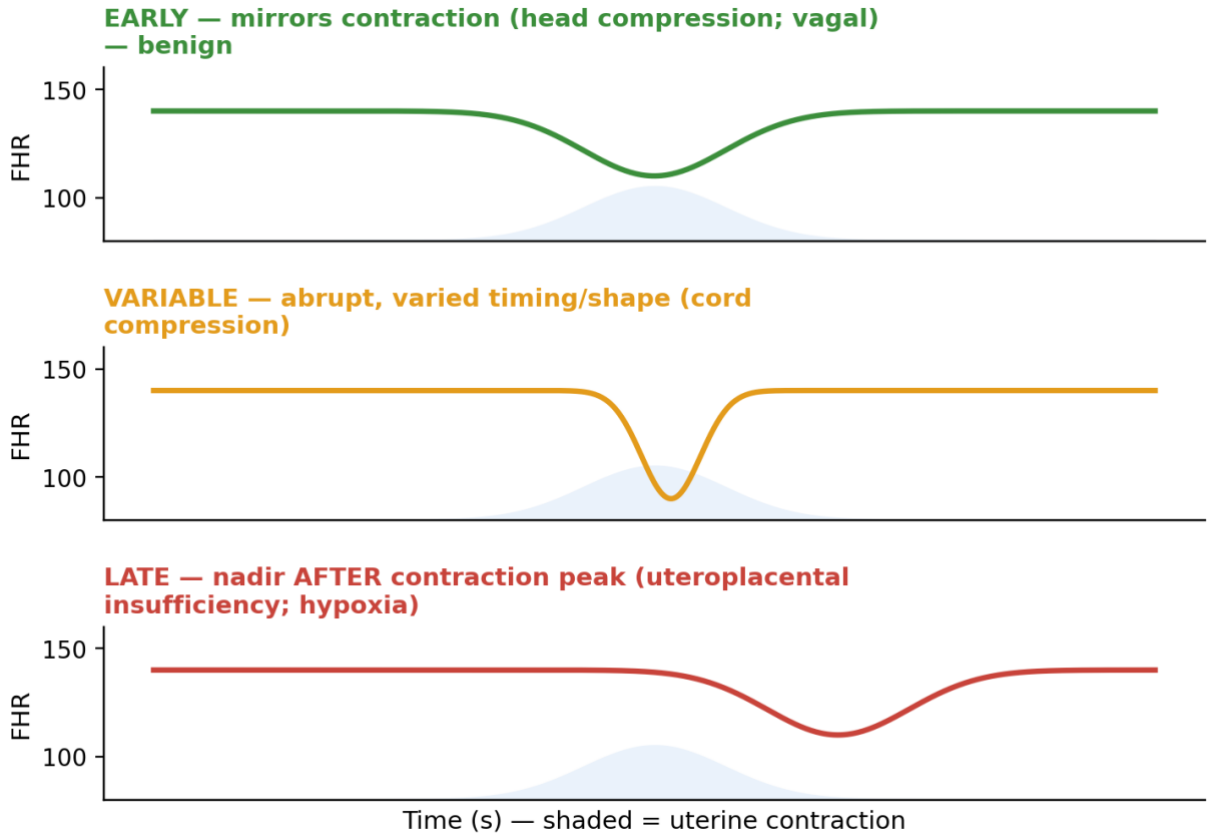


Figure 452.2 — Early, variable and late decelerations

452.3 Antenatal tests

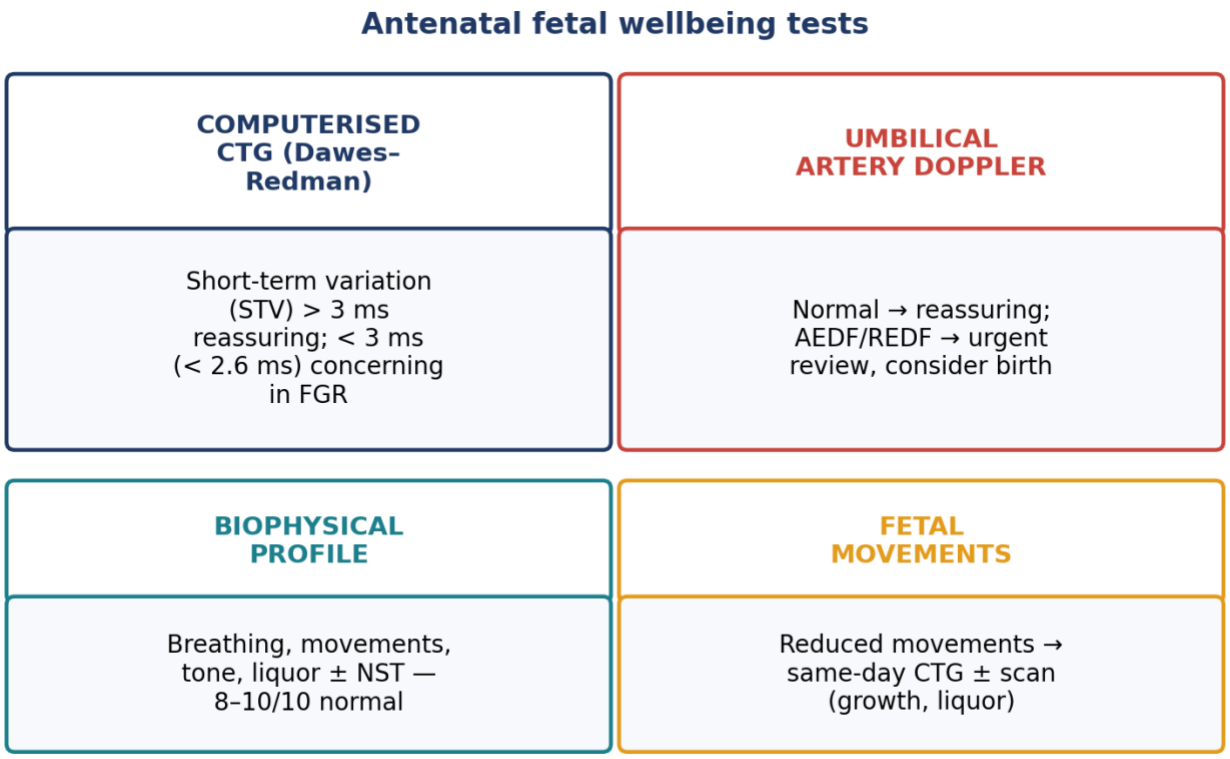


Figure 452.3 — Antenatal fetal wellbeing tests

452.4 Worked cases

■ **WORKED EXAMPLE**

Case 1 — labour, 7 cm: baseline 140, variability 10, accelerations, early decelerations → **normal CTG** → continue.

Case 2 — baseline 165 (rising from 140), variability 4 for 60 min, late decelerations with every contraction, maternal temperature 38.3 °C → **pathological** (consider chorioamnionitis/hypoxia) → stop oxytocin, IV fluids, antibiotics, senior review, consider FBS or expedite birth.

Case 3 — prolonged deceleration to 80 bpm for 4 min after epidural top-up → correct hypotension, left lateral, stop oxytocin; if not recovering by 9 min → **immediate birth**.

Case 4 — FGR at 30 wk: cCTG STV 2.4 ms, UA AEDF → **deliver** after steroids/$MgSO_4$.

■ **COMMON PITFALLS**

Interpreting the CTG in isolation from the clinical picture.

Missing a slowly rising baseline over hours (infection/hypoxia).

Confusing maternal heart rate with fetal heart rate (check maternal pulse).

452.5 Must-know summary

■ EXAM TIP

- Baseline 110–160, variability 5–25, accelerations reassuring.
- Early (benign), variable (cord), late (placental) decelerations; prolonged > 3 min.
- cCTG STV < 3 ms concerning; UA AEDF/REDF severe; BPP 8–10 normal.
- Act on the whole picture: fever, meconium, progress, gestation, trends.

■ MNEMONIC / MEMORY AID

CTG — 'DR C BRAVADO': Determine Risk, Contractions, Baseline RAte, Variability, Accelerations, Decelerations, Overall.