Abdominal palpation
The Leopold Maneuver

Follow the 4 steps of the Leopold Maneuver for abdominal palpation to determine fetal lie and presentation.

Step 1
First maneuver
Fundal grip
Using both hands on the pregnant woman’s abdomen for palpation, the fundus should be felt for the height of the fundus, the body of the uterus, and the uterine contour.

Step 2
Second maneuver
Umbilical Grip
After palpating the fundus, the presentations of the fetus are determined. This method involves palpating the abdomen gently with your fingertips between the woman’s iliac crests while facing the midline to determine whether it is mobile, fixed, or engaged.

Step 3
Third maneuver
First Pelvic Grip
During this step, the examiner places their fingers on either side of the lower abdomen to palpate the presenting part of the fetus through the maternal pelvis.

Step 4
Fourth maneuver
Second Pelvic Grip
This maneuver involves palpating the engagement of the fetal presenting part in the maternal pelvic inlet. The examiner places their fingers either on the right or left side of the maternal pelvis to determine the relationship between the presenting part and the maternal pelvis.

Determining fetal lie, position, presentation and attitude

The fetal lie
The lie of the fetus is the relation of its body to the mother's vertical axis. Only a longitudinal lie is normal. Transverse and oblique lies are abnormal.

Cephalic
Breech
Oblique
Transverse

The fetal position
The position of the baby is defined by the relationship of the fetal back to the mother’s vertical axis. The fetal position is formally described in terms of flexion, extension, and deflexion. In the former, the fetal back is in the middle position, and in the latter, the fetal back is flexed or extended.

The fetal presentation
The presentation is the part of the fetus that enters the pelvic outlet. The three main presentations are cephalic, breech, and transverse.

Fetus in cephalic presentation

Fetus in breech presentation

Fetus in transverse lie

A diagnostic tool
The diagnostic power of using the Leopold maneuver is complemented by auscultation of the fetal heart rate.

Determining fetal heart rate and presentation

Fetus in cephalic presentation

Fetus in breech presentation

Fetus in transverse lie

Diagnose

Count for 60 seconds to find the fetal heart rate (beats per minute) or count for 15 seconds and multiply by 4. If 100 beats per minute or below, 160 and 180 beats per minute, treat appropriately.

A normal fetal heart rate is between 110 and 160 beats per minute. Signs of fetal distress and fetal bradycardia (HR < 120 beats per minute) and tachycardia (HR > 160 beats per minute) must be treated immediately.

If any doubt, count longer and repeat after 15 minutes.

Fetal head well flexed
Fetal head well flexed

Pathological presentation (in- engage)