Ultrasound determination of fetal head position

Patient Information Series - What you should know, what you should ask.

What is the fetal head position?

The fetal head position is a term used to describe the lowermost part of the fetal head in the pelvis and the degree of fetal rotation in the maternal pelvis. In vertex (head down) cephalic presentation, the most common fetal presentation, the fetal head position of interest to the obstetrical caregiver is the relationship between the back of the fetal head (the occiput), and the maternal pelvis. In labor, most fetuses will have their occiput in an anterior position, that is, they will be looking down at the floor and this is the most favorable fetal position for efficient labor.

What are the various fetal positions?

In vertex (head down) presentations, the fetal head position can be oriented in several ways:

- occiput anterior position: the fetal face is oriented towards the maternal back
- occiput transverse position: the fetal face is oriented laterally (towards the left or right thigh of the mother)
- occiput posterior position: the fetal face is oriented towards the maternal abdominal wall (looking up).

How can the fetal head position be diagnosed?

Traditionally, fetal head position can be determined during labor after the cervix dilates by digital examination by palpation of the "soft spots" (fontanels) on the baby's head or feeling where the skulld bones intersect. Current evidence demonstrated that clinical diagnosis of fetal head position is subjective and is not always accurate. Use of ultrasound in labour, i.e. intrapartum sonography, is more reproducible and accurate in the determination of fetal head position in comparison to digital examination. In selected cases, when necessary, your obstetrician or midwife may use ultrasound in order to obtain an accurate diagnosis of fetal head position.

How is ultrasound scan performed?

Ultrasound assessment of fetal head position is usually performed by the transabdominal approach. The ultrasound transducer is placed on the maternal abdomen and the operator acquires various images of fetal structures which can be helpful in the determination of the relationship between the fetal occiput and the maternal pelvis. On occasion, if the fetal head is particularly low in the pelvis, a transperineal approach may be used, with the ultrasound probe placed against the labia.

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