Belly Mapping

by Gail Tully, BS, CPM, CD(DONA)

Too often, the posterior (sunny-side up) baby isn't identified until labor is troubled. Mothers ask, sometimes after the cesarean for a long, OP labor, “Why didn't anybody know? Can't the nurse or doctor tell when doing an exam?” Medical studies compare ultrasound imagining with vaginal exams by nurses and doctors. Trying to feel with the fingers which way a baby’s head was directed was not possible 60% of the time in the first stage of labor and 30% of the time in the second stage. Fortunately, other clues exist.

Belly Mapping is a three-step process for identifying baby’s position in the final months of pregnancy. Parents can use Belly Mapping for their own enjoyment. Medical care givers can enhance their skills by using the visual clues of Belly Mapping. Doulas will be able to suggest strategies for fetal repositioning when a posterior lie is suspected.

Most women, in the ninth month, can tell without Ultrasound if their head down baby is facing the right, left, front or back. A few women, though, will find it hard to use Belly Mapping alone. Firm tone, abundant amniotic fluid, a placenta on the anterior wall, or a well-padded tummy can mute the kicks and bumps from which to map baby parts.

Mothers often know more about their baby’s position than they first think. If a woman hasn’t already, encourage her to take a day or two to learn her baby’s habits. She will notice more details of baby’s movements when she is semi-sitting and breathing deeply and slowly.

Step One: Draw a pie.

Draw a circle with four parts, or pie pieces. Imagine you are drawing a map of your abdomen. The top is your fundus, or the top of your uterus at the end of pregnancy, about the 7th or 8th month. The bottom is where your pubic bone is. Your right side is on the left side of the paper map, and your left side is on the right. Just like looking in a mirror.
Make marks on the paper where you feel kicks and show where the big ones are and the little ones. Show where a big bulge pushes up occasionally. If you know, draw a hear where the doctor, nurse or midwife finds the baby's heart beat. Is one side of your belly a lot firmer than the other side when you lay down? Draw a line or write firm on that side.
With words or with pictures, the mother or doula marks each quadrant where she feels:

The biggest kicks,
Smallest kicks or wiggles,
The firm back, A big bulge, usually up top, or on one side or the other
If you know, circle where the head is, and
If you remember where the heartbeat was last heard, draws a heart there.
Leave out any parts you are unsure of, and just draw what you are sure of.

Step Two: Visualize the baby

Get a cloth doll or teddy bear.
Match the toy feet to the feet on your “map,” and so on.
Choose a doll or bear with bendable arms and legs.

To make Belly Mapping easier, keep in mind three opposites in the baby's body:
Head and bottom
Tummy and back
Feet and hands.

These opposites show up in opposite sides of the "pie." The bottom is always opposite of the head, up when the head is down. So, when head down, baby's feet are at the top, hands might be felt in the bottom half. (Feet kick stronger than hands.) Limbs are opposite the back. Knees bend, but when the legs stretch, the feet bulge out like a ball. Baby can make a triangular shape when straightening the legs. The bulge where the feet poke out seems rounded. Be reassured, the baby does not have two heads!

Getting the parts clear in your mind gets easier with practice!

If a mother has been told her baby is head down, she holds her doll head-down with the doll's head near her own pubic bone.
A mother turns the doll so its feet are in the same "pie piece" that she feels the biggest kicks. A baby's feet are on the belly side of the baby, so turn the doll's back towards the other side of the "pie."
If a bulging butt rises up, as it often does near the top of the womb, match the doll butt to that quadrant. This bulge can be confusing, are both bulges feet, or is one a head? If the baby is head down, it can't be the head. Is baby breech? (The head will not have legs extending of it.)
Knees bend often changing where kicks are felt. A posterior baby's knees may be the baby parts closest to the surface and can occasionally be felt close to the mother's navel.
Opposite from the kicking feet is a firmness--the baby's back. This is the quadrant where baby's heartbeat is best heard at the clinic visit.
When completely posterior, neither side of the womb is particularly firm and filled in. Knees, feet and hands might be moving on both sides of the womb. Whenever hands are felt in the front, right above the pubic bone, the baby is facing forward.

Hands often feel like wiggles, or champagne bubbles might feel, if felt at all. In a head down baby, wiggles between the pubic bone and navel (not thumps on the pubic bone) are certainly hands. But in a breech, low wiggles can be a foot "tapping." Other sensations in this area could be bladder pressure, forehead "grinding" in a face-forward baby, pubic bone shifting or, if deep, cervical ripening.

Now think of how a baby's arms and feet move. They are always going to be more on the tummy side of the body and often near baby's mouth.

If a mother can feel hands in front, baby is facing the front!

Step Three: Naming the Position

Sharing a common name for fetal positions helps us study and talk about birthing together. Three questions in this very specific order give us the position name:

1. Which side of the mother is the baby's back on?
2. Which part of the baby is coming into the pelvis first?
3. Which side, front or back of the mother is that baby part along?

In this specific order, a one word answer tells us:

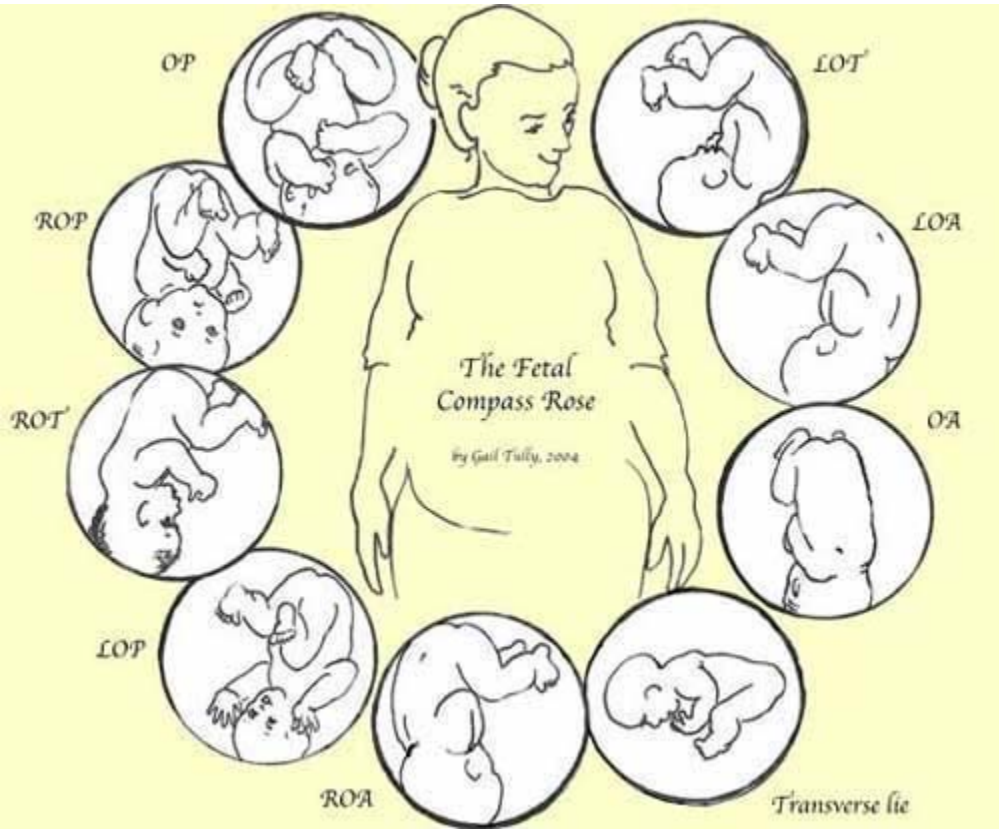
1. Mother’s side
2. Baby’s part
3. Mother’s side, front or back

The first answer, for instance, can be “Left” or “Right,” (“L” or “R.”)

The second answer tells which of the baby’s body parts is coming first that has importance in the birth process. The most common part will be Occiput. The occiput is the bone shaping the back of the skull. Another landmark is the sacrum, which is the triangular shaped bones making up the base of the spine. “S” is used for a breech (bottom first) even if the feet come before the sacrum. The chin (“M for mentum) is used for face-first, and “Fr,” Frontum (brow), is for forehead-first babies, rare but adventurous variations.

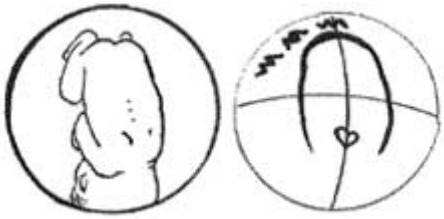
The third and last letter is for the mother's front, back or hip. The words, anterior (towards the front of the body); posterior (towards the back of the body); or transverse (to the side or sideways) are used. If question one and question three have the same answer, we just use number three.

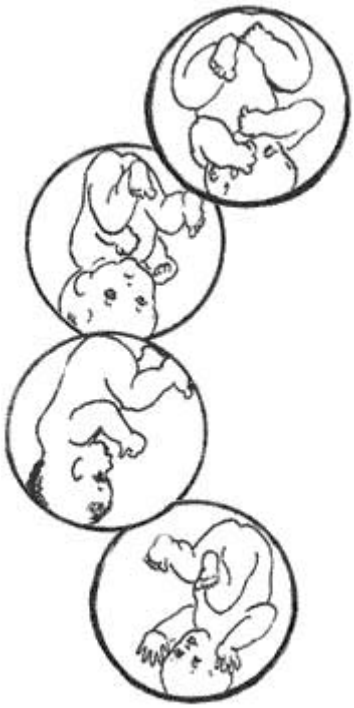
Talking the talk: A Left Occipital Transverse baby has her 1.) Back leaning into mother’s left; 2.) Head down and 3.) She's facing mother’s hip and kicking mother’s upper right abdomen. We say she is LOT. (When the words “transverse” and “lie” are used together, the baby is lying sideways in the womb.) When a baby’s back is up front we say “OA” rather than “AOA,” OK?



Fetal Position influences the course of labor.

The three “Anteriors.,” LOT, LOA and OA are all ideal for the start of labor. Both LOA and OA require less rotation than LOT and may start a faster labor, but may be less common than LOT. Generally, few midwives or doctors pay strict attention to the actual head position so the LOT baby is very often called LOA or just OA.





Four starting positions often lead to (or remain as) direct OP in active labor. Right Occiput Transverse (ROT), Right Occiput Posterior (ROP) and Left Occiput Posterior (LOP) join direct OP in adding labor time. The LOP baby has less distance to go to get into an LOT position. The incidence of posterior babies at the start of labor is scantly studied, and existing studies almost universally ignore all but direct posterior babies.

As labor begins, the high riding ROT baby struggles to ROA getting past the sacral promontory at the base of the spine, and then swings to LOT to engage in the pelvis. Most babies go on to OA at the pelvic or perineal floor. If a baby engages as a ROT he or she will commonly go to OP, but a few to ROA in mid-pelvis, and continue down to finish as either an ROA or OA. Some of these babies will rotate quite easily, especially in mothers with round pelvises, good vertical positions with strong contractions and who have given birth well before.

Childbirth texts estimate 15-30% of babies are OP in labor. Jean Sutton in Optimal Fetal Positioning describes that 50% of babies tend toward posterior in *early* labor upon admission to the hospital. My observations are that 75% of babies have their hands in front *before* early labor, indicating their backs are closer to their mother's backs than her front. Strong latent labor swings about a third of these to LOT before dilation begins (in "pre-labor" or "false labor"). The difference between the text books, Jean Sutton's and my observations indicates that some of the babies starting in a posterior position rotate before arriving to the hospital and then another set rotates before the average caregiver notices. In other words, no big problem. It's about a third that have a dramatic effect, and a few more that have some effect.

Only 5-7% of babies emerge directly OP, the rest rotate in labor. At least 12% of all cesareans are for OP babies that get stuck due to the larger diameter of the OP head in comparison to the OA head. It's more common for ROT, ROP and OP babies to rotate during labor and emerge facing back (OA).

Due to the physical therapy background of DONA co-founder, Penny Simkin, our DONA birth doula trainings and annual conferences include helpful techniques for babies whose heads are less than ideally aligned in the pelvis. Two key books, Optimal Fetal Positioning and The Labor Progress Handbook, give caregivers non-surgical strategies with movement and gravity.

Belly Mapping is a pleasant, bonding experience for a family. Fears about posterior fetal positioning should be reduced with a calm and confident response about a variety of solutions a mother can choose from. Simple demonstrations of some of the techniques taught in doula trainings, such as the Abdominal Lift, the Lunge and the Open Knee Chest will reassure parents that rotational support is available.