Why doctors examine the placenta

The placenta as a clinical record of pregnancy

The placenta is more than an organ that has finished its job once the baby is born. It is a temporary but highly specialized interface between maternal and fetal physiology. Through its villous tissue, maternal blood supply, fetal vessels, membranes, and umbilical cord, it supports gas exchange, nutrient transfer, waste removal, endocrine signaling, and immunologic balance. Because it develops and functions throughout pregnancy, it can also carry evidence of stressors that affected the intrauterine environment.

Clinicians examine the placenta because it can reflect pathophysiology in both the mother and fetus. In practical terms, it may help answer questions such as: Was the placenta complete? Was there evidence of infarction, hemorrhage, inflammation, abnormal cord insertion, or a vascular problem? Could a placental abnormality help explain fetal growth restriction, nonreassuring fetal status, preterm birth, neonatal illness, or stillbirth?

For many births, the examination is brief and reassuring. For others, placental findings become part of a diagnostic puzzle. They may guide immediate management, help pediatric teams anticipate neonatal needs, and inform counseling before future pregnancies. This is why placental examination is

considered a critical component of the immediate postpartum period rather than an optional curiosity.

What the bedside examination usually includes

The first examination usually happens soon after placenta delivery after birth, either in the delivery room or operating room. The clinician inspects the maternal surface, fetal surface, membranes, and umbilical cord. This can be a rapid assessment, but it is structured.

A typical gross examination includes checking whether the placenta appears complete, whether the membranes are present and have a normal insertion pattern, and whether the umbilical cord has the expected vessels. A normal umbilical cord usually contains two arteries and one vein. Counting cord vessels matters because a single umbilical artery can be associated with fetal anomalies or growth concerns, although its significance depends on the broader clinical context.

The clinician also observes cord length, knots, torsion, thrombosis, true knots, velamentous or marginal insertion, and whether the cord insertion looks vulnerable. The placental disc is assessed for size, shape, accessory lobes, infarcts, clots, retroplacental hemorrhage, calcifications, tumors, or areas that appear abnormal. The membranes may be examined for color, odor, completeness, and features that could suggest infection or meconium exposure.

This bedside review is not the same as a full histopathologic examination under a microscope. Instead, it is a minimum safety and diagnostic screen. If the gross appearance is abnormal, or if the clinical situation meets certain criteria, the placenta may be sent to pathology for more detailed evaluation.

Why completeness matters for postpartum safety

One of the most immediate reasons to examine the placenta is to confirm that it is intact. If a cotyledon, accessory lobe, or part of the membranes is missing, retained placental tissue may remain inside the uterus. This can interfere with uterine contraction and increase the risk of uterine bleeding, including primary postpartum hemorrhage. It can also contribute to infection or delayed postpartum bleeding.

The maternal surface of the placenta is usually inspected for a complete pattern of lobules. The membranes are followed around the edge of the disc to identify torn or missing segments. An accessory lobe is especially important because it may separate from the main placental disc and be left behind if not recognized. Even a small retained fragment can be clinically significant in the right setting.

If the placenta appears incomplete, clinicians do not diagnose based on appearance alone in isolation. They correlate the finding with the person's bleeding, uterine tone, vital signs, pain, and the circumstances of the birth. Depending on the situation, the care team may perform uterine assessment, use ultrasound selectively, manage bleeding, or discuss additional procedures. The key point is that examining the placenta helps clinicians recognize when the birth may not be physiologically complete and when closer observation is needed.

Clues about fetal and neonatal health

Placental findings can sometimes help explain why a newborn is unwell or why there were concerning fetal signs during labor. For example, significant infarcts may suggest impaired maternal blood flow to placental tissue. Large clots or retroplacental hemorrhage can be consistent with placental abruption in the right clinical context. Inflammation of membranes or cord structures may support concern for infection, particularly if the parent had fever, prolonged rupture of membranes, fetal tachycardia, or neonatal respiratory or sepsis symptoms.

Umbilical cord findings may also matter. A true knot, marked torsion, thrombosis, or abnormal insertion may be relevant if fetal monitoring was abnormal or if the baby needed resuscitation. A two-vessel cord may prompt clinicians to review fetal anatomy assessments and newborn examination findings. In multiple gestations, placental examination can also help identify chorionicity and sometimes zygosity-related information, which may be important for interpreting pregnancy risks.

It is important to approach these findings with nuance. A placental abnormality does not always prove causation. Some findings are incidental; others only become meaningful when combined with the pregnancy history, fetal growth

pattern, labor course, neonatal status, and pathology report. Still, the placenta is often the only organ that can be examined directly after birth to understand what happened inside the uterus.

When the placenta is sent to pathology

Many placentas receive only bedside gross examination and documentation. Formal pathology is typically reserved for abnormal appearance or clinical indications. Hospitals and birth centers may have local criteria, but common reasons include stillbirth, neonatal death, severe neonatal illness, suspected infection, preterm birth, fetal growth restriction, significant maternal hypertensive disease, abruption, unexplained fetal distress, multiple gestation concerns, abnormal cord vessels, congenital anomalies, or suspected placental tumors.

Pathologic examination can include measurements, weight, photographs or diagrams, sampling of the cord and membranes, and microscopic assessment of placental tissue. The goal is not merely to label the placenta as normal or abnormal. It is to identify patterns such as maternal vascular malperfusion, fetal vascular malperfusion, inflammatory lesions, chronic villitis, infarction, thrombi, or other lesions that may have diagnostic and prognostic value.

These reports can be emotionally difficult when a baby is ill or has died. Families may hope for a single clear answer, and sometimes pathology provides one. Other times, it offers partial information or rules out certain possibilities. A compassionate review with the obstetric, midwifery, maternal-fetal medicine, pathology, or neonatal team can help translate technical findings into what is known, what remains uncertain, and what may matter for future care.

How findings may affect future pregnancies

Placental examination can also provide information beyond the current birth. Some placental disorders have recurrence implications. For example, findings associated with maternal vascular malperfusion may be considered alongside a history of preeclampsia, fetal growth restriction, placental abruption, or stillbirth. Inflammatory or thrombotic patterns may prompt the clinician to

review maternal history, laboratory data, and pregnancy risk factors before deciding whether any further evaluation is appropriate.

This does not mean every abnormal placenta requires extensive testing or treatment. It means the placenta can contribute to risk stratification. If a prior pregnancy involved severe fetal growth restriction, recurrent pregnancy loss, unexplained stillbirth, or early-onset hypertensive disease, placental pathology may help clinicians plan surveillance in a subsequent pregnancy. That planning might include earlier review, growth ultrasound, Doppler assessment, or specialist consultation, depending on the complete medical picture.

For parents, the most helpful step is often to request a postpartum debrief if there were complications. Ask whether the placenta looked complete, whether it was sent to pathology, when results will be available, and whether the findings change recommendations for future pregnancies. You do not need to interpret the report alone; the terminology can be dense even for medically literate readers.

What parents may see and feel during the examination

Some parents are curious about the placenta; others prefer not to see it. Both reactions are normal. If you are awake and comfortable, you can ask your clinician to explain what they are checking. You may hear comments about the cord vessels, membranes, maternal surface, clots, calcifications, or whether the placenta appears intact. In a cesarean birth, the examination may happen at the surgical field or nearby, while the team also monitors bleeding and closes the incision.

If you have cultural, personal, or spiritual preferences about the placenta, share them early when possible. Hospitals may have policies regarding release of the placenta, especially if it needs pathology examination or if infection-control rules apply. If pathology is medically indicated, clinical evaluation may take priority because results could affect your care or your baby’s care.

It is also reasonable to ask for documentation. Helpful questions include: Did the placenta appear complete? Were there three cord vessels? Was there an accessory lobe? Were there clots or infarcts? Was it sent to pathology, and why? What symptoms should I watch for at home, such as heavy bleeding, fever,

worsening pain, or foul-smelling discharge? These questions support shared decision-making without requiring you to become your own pathologist.