Overview of placenta delivery and why it is necessary

The placenta’s role before birth

The placenta is a temporary, highly vascular organ that develops during pregnancy and attaches to the uterine wall. It supports fetal growth by facilitating oxygen and nutrient transfer, removing fetal waste products, producing hormones, and contributing to immune and endocrine signaling between the pregnant person and fetus. By the end of pregnancy, the placental implantation site contains large maternal blood vessels that have been remodeled to support substantial blood flow.

Once the baby is born, the placenta has completed its main function. It no longer needs to remain attached, and the body must transition quickly from a high-flow pregnancy circulation to postpartum hemostasis. That transition depends on placental separation, delivery of the placenta, and sustained uterine contraction. In practical terms, the uterus must become firm and smaller, compressing the blood vessels at the placental bed. This is why the moments after birth are not simply observational; they are an important part of maternal safety.

What happens during the third stage of labor

The third stage of labor begins after the baby is born and ends when the placenta and membranes have been delivered. In an uncomplicated vaginal birth, the placenta typically separates from the uterine wall because of uterine contractions and changes in the size and shape of the uterus. Clinicians may notice signs of separation such as a small gush of blood, lengthening of the umbilical cord, and the uterus becoming firmer and more globular.

Placenta delivery after birth may occur with active management or physiological management. Active management commonly includes a uterotonic medication, often oxytocin, to stimulate uterine contraction and reduce the likelihood of postpartum hemorrhage. The clinician may also use controlled cord traction when appropriate, while supporting the uterus. Physiological management avoids routine medication initially and allows the placenta to deliver with the person’s own contractions, provided bleeding is not excessive and both the clinical setting and individual circumstances support this approach.

Neither approach is about "doing better" or "doing worse." The best option depends on clinical risk factors, preferences, local protocols, bleeding, and the safety of waiting. A person who wants a low-intervention birth may still need active management if bleeding develops, while someone with risk factors for hemorrhage may be advised to use active management from the outset.

Why placenta delivery is necessary

Placenta delivery is necessary because the placental attachment site is a major potential source of postpartum bleeding. During pregnancy, the uterus tolerates extensive blood flow to the placenta. After birth, the body controls this bleeding primarily through myometrial contraction. The contracting uterine muscle compresses maternal vessels at the placental bed, a mechanism sometimes described as "living ligatures."

If the placenta remains attached, partially attached, or incompletely delivered, the uterus may not contract efficiently. This can contribute to uterine atony after birth, ongoing bleeding, or hemorrhage. Even when bleeding is initially modest, retained placental tissue can prevent normal uterine involution and increase the risk of infection. This is why clinicians inspect the delivered placenta and membranes to check that they appear complete.

The need for delivery is equally important in cesarean birth. During a cesarean section, the clinician removes the placenta through the uterine incision and checks the uterus for bleeding and tone before closing. This is a controlled surgical step, but the underlying physiology is the same: the placenta must be removed so the uterus can contract and postpartum bleeding can be controlled.

Retained placenta and why timing matters

A retained placenta generally means the placenta has not delivered within the expected time after birth, or that bleeding makes continued waiting unsafe. Medical literature describes diagnostic thresholds that vary across settings, often between about 18 and 60 minutes after vaginal birth, and urgent removal is indicated if significant hemorrhage occurs. Many maternity protocols intervene if the placenta has not delivered by around 30 minutes with active management or by about one hour with physiological management, or sooner if heavy bleeding begins.

Retained placenta after birth is not a single mechanism. It may occur because the uterus is not contracting effectively, because the placenta is trapped behind a closing cervix, or because abnormal adherence prevents normal separation. In some cases, placental tissue may remain after the main placenta has delivered. Risk factors can include previous retained placenta, preterm birth, uterine surgery, induction or augmentation in some contexts, prolonged labor, and placental implantation abnormalities, though retained placenta can also occur without obvious risk factors.

The clinical concern is not merely delay. The danger is that prolonged retention can lead to primary postpartum hemorrhage, severe blood loss, transfusion, infection, or the need for urgent procedures. This is why a calm birth room may become more medically focused during the third stage if bleeding increases or the placenta does not separate. Prompt escalation is protective, not punitive.

How clinicians support safe placental separation

Care during the third stage is individualized, but several steps are common. The team observes bleeding, uterine tone, vital signs, and signs of placental separation. They may ask the birthing person to push gently when the placenta

is descending. Abdominal massage or fundal assessment may be used to evaluate whether the uterus is firm. Oxytocin may be given by injection or infusion to encourage contraction, especially in active management or when bleeding is a concern.

Clinicians may also address reversible factors that interfere with placental delivery. A full bladder can impair uterine contraction or descent of the placenta, so bladder drainage with a catheter may be recommended. If the placenta appears trapped or the cervix is constricting, specific clinical maneuvers may be needed. In some situations, medications that relax the uterus are used briefly to permit safe removal, followed by uterotonic medication to restore contraction.

Throughout this process, communication matters. The person giving birth may be exhausted, elated, frightened, or focused on the baby. Good care includes explaining what is happening, asking for consent when possible, providing pain relief or anesthesia when needed, and maintaining dignity. The third stage can feel unexpected if it was not discussed in prenatal care, so it is reasonable to ask in advance how your birth setting approaches placenta delivery after birth and postpartum hemorrhage risk.

Manual removal and other interventions

If the placenta does not deliver or if bleeding becomes concerning, manual removal of the placenta may be recommended. This procedure involves a trained clinician inserting a hand into the uterus to separate and remove the placenta, usually with appropriate analgesia, anesthesia, or an operating-room setting depending on urgency and local practice. The goal is to remove the placenta and membranes completely so the uterus can contract and bleeding can be controlled.

Manual removal is not performed casually; it is used when the risks of waiting outweigh the risks of intervention. Potential concerns include pain, infection risk, uterine trauma, and bleeding, which is why sterile technique, skilled assessment, and follow-up monitoring are important. If retained placental tissue is suspected after delivery, additional examination, ultrasound in selected cases, medication, or surgical management may be considered by the healthcare team.

In rare circumstances, abnormal placental adherence, such as placenta accreta spectrum, may make separation difficult and bleeding dangerous. This is more likely to be anticipated when risk factors such as placenta previa and previous uterine surgery are known, but unexpected cases can occur. Management is highly specialized and may involve senior obstetric, anesthesia, blood bank, and surgical support.

What to expect immediately after the placenta is delivered

After the placenta is delivered, the clinician usually inspects it to confirm that the maternal surface, fetal membranes, and umbilical cord appear complete. The uterus is assessed for tone, and bleeding is monitored closely. Some people receive ongoing uterine massage, additional oxytocin, or other uterotonic medications if the uterus feels soft or bleeding is heavier than expected.

The birthing person may experience cramping as the uterus contracts, particularly with breastfeeding or chestfeeding because endogenous oxytocin release can intensify afterpains. Vital signs, the amount of vaginal bleeding, and overall wellbeing are checked during the early postpartum period. If there was heavy bleeding or manual removal, the team may monitor more frequently and discuss warning signs, iron status, infection risk, or follow-up needs.

Emotionally, this stage can be overlooked. Some people barely notice placenta delivery; others find it uncomfortable, surprising, or frightening if urgent intervention is needed. It is valid to ask for a debrief afterward, especially if the third stage involved hemorrhage, manual removal, transfer to an operating room, or separation from the baby. Understanding what happened can support both physical recovery and emotional processing.

Discussing preferences while staying flexible

Because placenta delivery is both physiologic and safety-critical, it fits well into birth planning conversations. You can ask your clinician or midwife about active versus physiological management, delayed cord clamping, how long they usually wait for the placenta, and what would trigger intervention. You can also ask how pain relief is handled if manual removal becomes necessary.

Preferences are important, but flexibility is protective. A plan for

physiological management may change if bleeding increases. A desire to avoid medication may need to be balanced against hemorrhage prevention. Conversely, if a person is stable and low risk, a clinician may support waiting within safe time limits. Shared decision-making is strongest when it includes both values and clear thresholds for action.

If you have a history of retained placenta, postpartum hemorrhage, uterine surgery, placenta previa, or suspected abnormal placentation, discuss this before labor if possible. Your team can plan location of birth, intravenous access, blood availability, uterotonic use, and escalation pathways. Preparation cannot remove every risk, but it can make urgent moments safer and less disorienting.