

## First minutes and first hour after birth overview



### The first breath, first cry, and immediate transition

Birth begins a rapid cardiopulmonary transition. Before delivery, the placenta performs gas exchange and the fetal lungs are fluid-filled. After birth, the newborn must establish effective ventilation, expand the lungs, increase pulmonary blood flow, and shift circulation away from fetal pathways. A strong first cry is reassuring because it helps aerate the lungs, but not every healthy baby cries loudly right away. Some babies make smaller sounds, breathe quietly, or need stimulation such as drying and rubbing.

In the first moments, the team usually focuses on several fundamentals: Is the baby breathing or crying? Is tone good? Is the heart rate appropriate? Is the baby term or preterm? At the same time, the newborn is dried to reduce evaporative heat loss, wet blankets are replaced, and the airway is assessed. Routine deep suctioning is not needed for every baby; clinicians individualize airway support based on breathing effort, secretions, tone, heart rate, and local protocols.

For many vigorous babies, these first steps can occur directly on the birthing parent's chest. This allows immediate skin-to-skin contact while the team observes color, respirations, and tone. If the baby needs additional support,

the team may move them to a warmer for resuscitation or closer evaluation. This is not a failure of the birth plan; it is a safety measure aimed at supporting oxygenation, ventilation, circulation, and thermoregulation during a vulnerable transition.

### **Apgar scoring and early clinical assessment**

The Apgar score is a rapid structured assessment performed at 1 and 5 minutes after birth, and sometimes later if the score remains low or the baby needs resuscitation. It evaluates five signs: activity or muscle tone, pulse, grimace or reflex irritability, appearance or color, and respiration. Each category receives 0, 1, or 2 points, for a total score from 0 to 10.

Apgar scoring is useful for communicating the newborn's condition at specific time points, but it is not a complete diagnosis and does not predict everything about future health. A baby can have a lower 1-minute score because of a difficult labor, maternal medications, prematurity, or a brief delay in establishing breathing, then improve quickly by 5 minutes. Conversely, a baby who looks well still receives ongoing observation because newborn transition continues beyond the first score.

During newborn assessment, clinicians also monitor heart rate, respiratory effort, tone, temperature risk, gestational age features, and signs of distress such as grunting, flaring, retractions, cyanosis, poor tone, or persistent apnea. If concerns arise, additional steps may include stimulation, oxygen, positive-pressure ventilation, continuous pulse oximetry, glucose assessment, or transfer to a higher level of newborn care. Parents can ask what is happening in plain language; most teams are glad to narrate care when the situation allows.

### **Skin-to-skin contact and keeping the baby warm**

When both parent and newborn are stable, uninterrupted skin-to-skin contact is one of the most valuable practices of the first hour. The baby is usually placed prone on the parent's bare chest, dried, covered with warm blankets, and often given a hat depending on local practice. This positioning helps reduce heat loss, supports more stable heart rate and breathing, and lets the baby hear familiar sounds and smell the parent's skin.

Thermoregulation is a major priority because newborns lose heat quickly through evaporation, conduction, convection, and radiation. Cold stress can increase oxygen and glucose use, which may be especially relevant for preterm babies, small or large babies, and babies of parents with diabetes. Skin-to-skin contact is not merely sentimental; it is a physiologic intervention that supports temperature regulation and early adaptation.

Immediate skin-to-skin contact after birth can also coexist with many clinical tasks. Apgar scoring, identification bands, brief assessment, and delayed cord clamping can often be performed while the baby remains with the parent. Some procedures, such as weighing, bathing, and some routine measurements, are commonly delayed until after the first feeding for healthy newborns. If a cesarean birth, anesthesia effects, surgical draping, or maternal symptoms make direct chest placement difficult, a support person holding the baby skin-to-skin may be an option if the clinical team agrees and the environment is safe.

### **Delayed cord clamping, placenta delivery, and parent monitoring**

While the baby is transitioning, the birthing parent is also entering immediate postpartum recovery. In many births, delayed cord clamping is offered for a short period if the baby is vigorous and there are no urgent concerns. This allows additional placental blood transfer to the newborn, which may improve iron stores. Timing varies by clinical situation, gestational age, bleeding risk, and institutional protocol.

Birth is not complete until the placenta is delivered and the uterus begins contracting firmly. The team monitors uterine tone after delivery, vaginal bleeding, blood pressure, pulse, pain, level of alertness, and the condition of the perineum or surgical site. Uterotonic medication may be recommended to reduce postpartum hemorrhage risk. If there are lacerations, the clinician may examine and repair them while the baby remains skin-to-skin when feasible.

This hour can feel emotionally split: you may be gazing at your baby while clinicians press on the abdomen, assess bleeding, place sutures, or manage nausea, shaking, or pain. These sensations are common, but they deserve attention and relief. Tell the team promptly if you feel faint, short of

breath, intensely weak, confused, or notice a gush of blood. Supportive communication matters: you can ask what is being checked, whether the baby can remain on your chest, and what options exist for pain control or positioning.

### **Newborn alertness, reflexes, and the path toward the first feed**

Many newborns enter a quiet-alert period during the first hour or two after birth. Their eyes may open, they may look toward voices, and they may begin spontaneous feeding behaviors. Lactation specialists often describe a sequence of early stages: birth cry, relaxation, awakening, activity, crawling or moving toward the breast, resting, familiarization, and suckling. These stages do not always occur neatly or on a strict clock, but they illustrate that feeding is often a gradual neurologic and sensory process rather than an instant event.

Early feeding cues may include hand-to-mouth movements, head bobbing, rooting, licking, mouthing, and small crawling motions. Familiarization can involve touching, smelling, licking, and nuzzling before latching. The first breastfeed may be brief or prolonged. Colostrum is produced in small volumes, but it is concentrated and appropriate for the newborn stomach. If the baby does not latch immediately, skilled help with positioning, hand expression, and observation can be reassuring.

Families planning formula feeding can still benefit from skin-to-skin contact, responsive feeding, and close observation of cues. The first feed, however it is provided, should be guided by the baby's stability, gestational age, glucose risk, parental preference, and clinical advice. If a baby is sleepy, premature, has low tone, has breathing difficulty, or is at risk for hypoglycemia, the team may recommend a more structured feeding plan and monitoring.

### **Routine newborn procedures and what can often wait**

During the first hours, babies receive several assessments and preventive interventions. These may include identification bands, weight, length, head circumference, temperature checks, vitamin K injection, eye prophylaxis where required or recommended, and later newborn screening tests such as heel-stick blood screening and hearing screening. Policies vary by country, state, hospital, and individual risk factors.

For a stable term newborn, many routine newborn procedures do not need to interrupt the first skin-to-skin period. Weighing, bathing, and some measurements can often wait until after the first feed. Bathing is commonly delayed because vernix and the baby's own scent may support skin adaptation and feeding behaviors, and because early bathing can contribute to heat loss. Eye care and other preventive treatments may have specific timing requirements, so discuss preferences before birth if possible.

It can help to include newborn care preferences in a birth plan, while keeping flexibility for safety. Consider stating preferences about minimizing newborn separation, bedside newborn assessments, feeding support, vitamin K, eye prophylaxis, hepatitis B vaccination if offered, and who should accompany the baby if transfer is needed. A respectful plan does not demand that clinicians ignore medical concerns; it helps the team understand your priorities when choices are available.

### **When the first hour looks different**

Not every family experiences an uninterrupted golden hour, and that can be emotionally hard. A baby may need extra support because of prematurity, meconium exposure with poor tone or breathing, infection concern, congenital anomalies, low oxygen levels, respiratory distress, low blood glucose, or complications during labor. A birthing parent may need urgent care for hemorrhage, severe blood pressure changes, anesthesia complications, operative repair, or other medical needs.

Temporary newborn separation can be appropriate when closer monitoring or intervention is needed. If this happens, ask who is with the baby, what the concern is, what treatment is being provided, and when reunion may be possible. If direct holding is delayed, bonding can still unfold through voice, touch when allowed, expressed colostrum, partner skin-to-skin, photographs, and later uninterrupted time together.

Cesarean births can still include many elements of early bonding, depending on surgical and anesthesia conditions. Some operating rooms support skin-to-skin on the chest, cheek-to-cheek contact, or support-person holding near the parent's face. If the parent is drowsy, nauseated, shaking, or medically unstable, safety supervision is essential. The central principle is

compassionate adaptation: protect parent and baby clinically while preserving connection whenever possible.