



Immediate transition

- ✓ Three fetal shunts close: **foramen ovale, ductus arteriosus, ductus venosus**
- ✓ **First breath within 30 seconds.** A strong cry means the lungs aerated
- ✓ **Apgar at 1 and 5 minutes** — Appearance, Pulse, Grimace, Activity, Respiratory effort, each 0–2
- ✓ **7–10 stable • 4–6 moderate distress, resuscitate and reassess • 0–3 severe distress, immediate resuscitation**
- ✓ **Apgar does not predict long-term outcome and never delays lifesaving care**



NRP sequence

- ✓ **Warmth** — newborns cannot shiver and lose heat 4× faster than adults. Warm room $\geq 26^{\circ}\text{C}$ (79°F), dry thoroughly, radiant warmer or skin-to-skin
- ✓ **Airway** — head **neutral, “sniffing” position**; suction **mouth before nose** and only for copious secretions. Deep or routine suctioning causes vagal bradycardia
- ✓ **Breathing** — no cry or HR <100 : dry, rub the back, then **positive-pressure ventilation**
- ✓ **Circulation** — HR <60 after 30 seconds of effective ventilation → chest compressions, **3:1 ratio**
- ✓ **Heat loss** — **evaporation** (dry the skin) • **conduction** (warm surfaces) • **convection** (avoid drafts) • **radiation** (crib away from windows)
- ✓ Hypothermia causes hypoglycemia, respiratory distress, and metabolic acidosis



Reflexes

Reflex	Response	Disappears
Moro (startle)	Arms extend then flex	4–6 months
Rooting	Turns to cheek touch	4 months
Sucking	Rhythmic sucking	6 months
Palmar grasp	Grasps object	6 months
Plantar grasp	Toes curl down	9–12 months
Babinski	Toes fan out	1 year
Stepping	Steps when upright	4–8 weeks
Tonic neck	“Fencing” posture	3–4 months



Newborn norms

- ✓ **Temperature** $36.5\text{--}37.5^{\circ}\text{C}$ ($97.7\text{--}99.5^{\circ}\text{F}$) • HR 110–160 • RR 30–60 • BP $\sim 60\text{--}80/40\text{--}50$ (not routinely measured)
- ✓ **Glucose ≥ 40 mg/dL in the first 4 hours, ≥ 45 mg/dL after 4 hours**
- ✓ **Weight** 2500–4000 g (5.5–8.8 lb); loss up to **10% in the first week is normal** • **Length** 45–55 cm • **Head circumference** 32–36.8 cm, $\sim 2\text{--}3$ cm larger than the chest
- ✓ **Anterior fontanel** diamond, closes 12–18 months • **posterior** triangular, closes 2–3 months. Bulging = $\uparrow$ ICP or infection; sunken = dehydration
- ✓ **Prophylaxis** — **vitamin K IM in the vastus lateralis** (sterile gut cannot make it), **erythromycin ophthalmic ointment within 1–2 hours, hepatitis B vaccine within 12 hours** (plus HBIG if the mother is positive)



Normal versus abnormal

- ✓ **Normal** — flexed posture, strong cry, **acrocyanosis** (blue hands and feet up to 24 hours), lanugo, vernix, milia, erythema toxicum, Mongolian spots, peeling after 24 hours, murmur in the first 24 hours, fine crackles in the first hours, subconjunctival hemorrhage
- ✓ **Abnormal** — **central cyanosis (lips, tongue)**, limp or hypotonic, weak or high-pitched cry, pallor, **jaundice within the first 24 hours**, petechiae, absent red reflex, low-set ears, cleft lip/palate, choanal atresia (cyanosis relieved by crying), **femoral pulse weaker than brachial** (coarctation), single umbilical artery, no meconium or void within 24 hours
- ✓ **Caput succedaneum crosses suture lines** (soft, boggy, resolves 24–48 h). **Cephalohematoma does not cross sutures** — blood under the periosteum, jaundice risk
- ✓ **Hip dysplasia** — Ortolani and Barlow, uneven gluteal folds
- ✓ **Umbilical cord** — 2 arteries + 1 vein