

The image features two thick black L-shaped bars. One is positioned in the top-left corner, and the other is in the bottom-right corner. They are oriented towards each other, framing the central text.

FOUNDATIONS OF NEONATAL RESUSCITATION

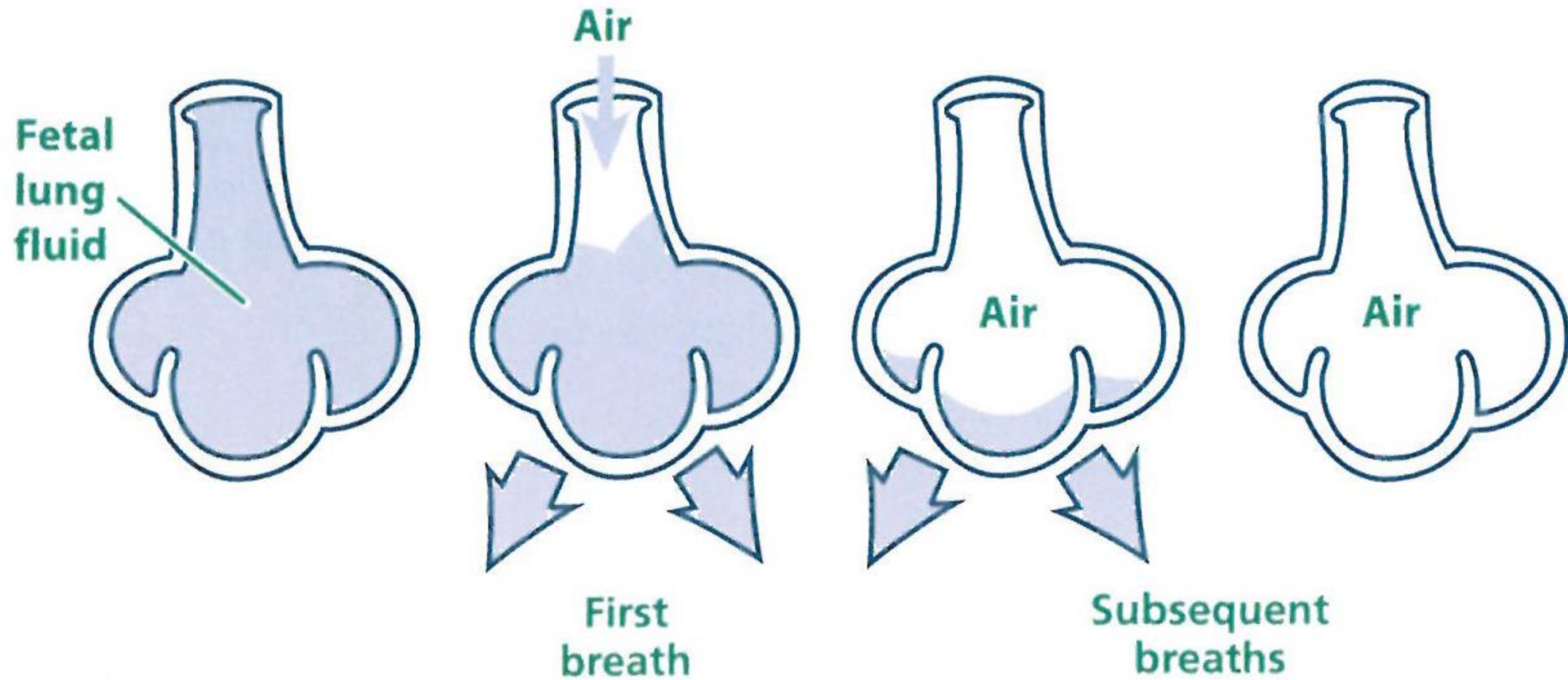
- NRP : help to learn cognitive, technical, and teamwork skills
- Five percent of term newborns will receive PPV.
- Two percent of term newborns will be intubated.
- 1-3 babies per 1000 births will receive chest compression or emergency medications.

Why different approach?

- Placenta : role of lung
- Fetal heart changes
- Early phase respiratory failure
- Late phase respiratory failure
- We don,t know ? Early or late phase

What happens during the transition from fetal to neonatal circulation ?

Change at Birth	Result
The baby breathes. The umbilical cord is clamped, separating the placenta from the baby.	The newborn uses the lungs, instead of the placenta, for gas exchange.
Fluid in the alveoli is absorbed.	Air replaces fluid in the alveoli. Oxygen moves from the alveoli into the pulmonary blood vessels and CO ₂ moves into the alveoli to be exhaled.
Air in the alveoli causes blood vessels in the lung to dilate.	Pulmonary blood flow increases and the ductus arteriosus gradually constricts.



Clinical findings of abnormal transition

- Irregular breathing, absent breathing (apnea), or rapid breathing (tachypnea)
- Slow heart rate (bradycardia) or rapid heart rate (tachycardia)
- Decreased muscle tone
- Pale skin (pallor) or blue skin (cyanosis)
- Low oxygen saturation
- Low blood pressure

What is NRP flow diagram?

- **Rapid Evaluation:** Determine if the newborn can remain with the mother or should be moved to a radiant warmer for further evaluation.
- **(A) Airway:** Perform the initial steps to establish an open Airway and support spontaneous respiration.
- **(B) Breathing:** Positive-pressure ventilation is provided to assist Breathing for babies with apnea or bradycardia. Other interventions (continuous positive airway pressure [CPAP] or supplemental oxygen) may be appropriate if the baby has labored breathing or low oxygen saturation.

- **(C) Circulation:** If severe bradycardia persists despite assisted ventilation, Circulation is supported by performing chest compressions coordinated with PPV.
- **(D) Drug:** If severe bradycardia persists despite assisted ventilation and coordinated chest compressions, the Drug epinephrine is administered as coordinated PPV and chest compressions continue.

Why are teamwork emphasized during
NRP?

Prepare for resuscitation

Pre-resuscitation team briefing

- Assess risk factors.
- Identify team leader.
- Anticipate potential complications and plan a team response.
- Delegate tasks.
- Identify who will document events as they occur.
- Determine what supplies and equipment will be needed.
- Identify how to call for additional help.

Perinatal risk factors

Antepartum Risk Factors

Gestational age less than 36 0/7 weeks
Gestational age greater than or equal to 41 0/7 weeks
Preeclampsia or eclampsia
Maternal hypertension
Multiple gestation
Fetal anemia

Polyhydramnios
Oligohydramnios
Fetal hydrops
Fetal macrosomia
Intrauterine growth restriction
Significant fetal malformations or anomalies
No prenatal care

Intrapartum Risk Factors

Emergency cesarean delivery
Forceps or vacuum-assisted delivery
Breech or other abnormal presentation
Category II or III fetal heart rate pattern*
Maternal general anesthesia
Maternal magnesium therapy
Placental abruption

Intrapartum bleeding
Chorioamnionitis
Opioids administered to mother within 4 hours of delivery
Shoulder dystocia
Meconium-stained amniotic fluid
Prolapsed umbilical cord

What question should ask before every birth?

What is the expected gestational age?

Is the amniotic fluid clear?

Are there any additional risk factors?

What is our umbilical cord management plan?

Post-resuscitation team debriefing

A post-resuscitation team debriefing is a constructive review of actions and thought processes that promotes reflective learning. Performing a debriefing after the resuscitation reinforces good teamwork habits and helps your team identify areas for improvement. A quick debriefing can be performed immediately after the event, while a more comprehensive debriefing may be scheduled a short time afterward. Your debriefings do not have to find major problems to be effective. You may identify a series of small changes that can result in significant improvement in your team's performance and clinical outcomes.

NRP key behavioral skills

Behavior	Example
Know your environment.	Know how the resuscitation team is called and how additional personnel and resources can be summoned. Know how to access additional supplies and equipment for a complex resuscitation.
Use available information.	Ask the obstetric provider the 4 pre-birth questions to identify risk factors.
Anticipate and plan.	Know which providers are qualified to attend the birth based on the identified risk factors. Perform a standardized equipment check before every birth. Assign roles and responsibilities.
Clearly identify a team leader.	If risk factors are present, identify a team leader before the birth and perform a pre-resuscitation team briefing to ensure that everyone is prepared and responsibilities are defined.
Use available resources.	Prepare additional supplies and equipment, as necessary, based on identified risk factors.