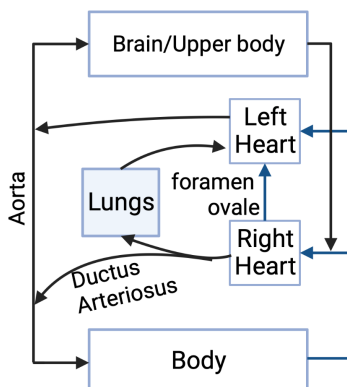




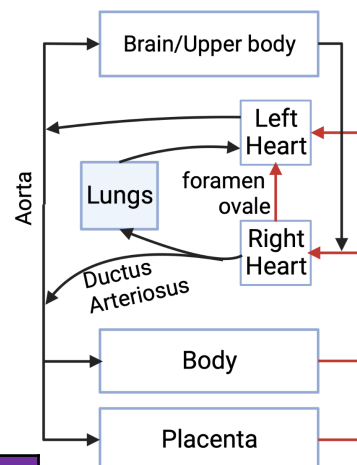
Deferred cord clamping (DCC): previously referred to as delayed cord clamping, involves waiting before clamping the cord of a newborn. This enhances the transfer of blood from the placenta to the newborn.

- ↑ Oxygenation following delivery
- ↓ Fluctuations in heart rate
- ↓ Iron deficiency/anemia

Immediate Cord Clamping



Deferred Cord Clamping



PHYSIOLOGIC RATIONALE FOR DCC

DCC increases final blood volume and red blood cells delivered to the newborn. The placenta continues to provide blood flow until lungs aerate and take over, this smooths the cardiopulmonary transition: ↑ oxygenation, ↑ preload, ↓ afterload. There is no increase in incidence of postpartum hemorrhage associated with DCC.

RECOMMENDATIONS

As the degree of prematurity increases, the benefits of DCC increases.

Preterm and extremely preterm: DCC for 60 to 120 seconds.

Height of newborn: below introitus or at the level of the caesarean incision.

Temperature: maintained with warm towel, or plastic bags/wrap.

Term: DCC for 60 seconds, **any longer increases risk of hyperbilirubinemia.**

Height of newborn: at or below mother's abdomen, or at the level of the caesarean incision.

Twins: limited evidence that DCC is beneficial.

DCC must not delay delivery of second twin.

EVIDENCE:

Recent clinical evidence for DCC is underwhelming. In preterm infants, DCC results in a moderate improvement in survival (RR 1.00-1.04, moderate quality evidence).

In all infants, DCC appears to be **safe**, it improves hemoglobin but also may result in increased incidence of phototherapy.

UTEROTONIC MEDICATION

Administration of oxytocin is standard practice to increase uterine tone. This independently reduces incidents of postpartum hemorrhage. DCC and oxytocin administration need to be considered in relation to each other.

Preterm: give **after clamping cord.**

Term: give **after delivery** of anterior shoulder.

CONTRAINDICATIONS

Absolute: fetal hydrops, disrupted utero-placental circulation, twin-to-twin transfusion syndrome.

Relative: risk factors for hyperbilirubinemia (e.g. polycythemia, IUGR, pregestational diabetes, Glucose-6-phosphate dehydrogenase deficiency), high maternal antibody titers.

Umbilical Cord Milking: not currently recommended as this increases the incidence of intraventricular hemorrhage and is less efficacious than DCC.

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