

## Comparative Review of Lotus Birth and Delayed Cord Clamping: Practices, Benefits, And Risks

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### Introduction

The umbilical cord functions as a crucial link between the mother and foetus throughout gestation, enabling the exchange of oxygen and nutrients. Subsequent to delivery, the care of this link has progressed into diverse methods, particularly lotus birth and delayed cord clamping (DCC). Both techniques postpone the clamping of the umbilical chord, however they diverge significantly in methodology and clinical consequences. This review assesses the scientific evidence on lotus birth and delayed cord clamping, contrasting their methodologies, advantages, hazards, and clinical guidelines.<sup>1</sup>

### Lotus Delivery Definition

Lotus delivery, also known as umbilical cord nonseverance (UCNS), entails leaving the umbilical cord and placenta linked to the newborn until they naturally separate, which usually occurs within 3 to 10 days postpartum. The placenta is cleaned, dried, and stored in permeable containers with absorbent materials like sea salt and dried herbs. To limit the risk of infection, parents should maintain proper cleanliness when handling the placenta. The technique focusses on a calm transition for the infant and spiritual regard for the placenta-newborn relationship.<sup>2</sup>

### Delayed Cord Clamping (DCC)

Delayed cord clamping involves postponing the clamping and severing of the umbilical cord for a duration of 30 seconds to 3 minutes following delivery, thereby permitting ongoing blood transfer from the placenta to the newborn. This procedure is conducted in both vaginal and caesarean deliveries, with protocols focussing on prompt neonatal care, preservation of body temperature, and the monitoring of vital signs during the waiting period. The placenta is

expelled following cord severance, and uterotonic agents are administered to the mother to regulate uterine tone.<sup>3</sup>

### **Physiological Basis and Rationale**

Lotus birth builds upon the concept of delayed cord clamping by permitting the umbilical cord to separate naturally, which is theorised to facilitate a more organic and less invasive transition from foetal to neonatal life. Proponents argue that this approach enables complete placental transfusion and aids in the development of the infant's immune system.

Delayed cord clamping is supported by evidence indicating that permitting placental blood transfusion to the newborn increases blood volume, enhances iron stores, and improves stem cell transfer, thereby benefiting neonatal haematologic and immunologic status.<sup>4</sup>

### **Benefits**

Lotus Birth: Helps the baby have a tranquil and less traumatic birth. It also allows for progressive placental transfusion, which could increase the baby's blood volume and iron content. - Could lower the chance of getting hurt in the umbilical cord, like avulsion. - Seen as a spiritual or cultural activity that honours the relationship between the placenta and the newborn.<sup>5</sup>

### **Delayed Cord Clamping Term Infants:**

Boosts early newborn haemoglobin and ferritin. Increases iron storage, lowering anaemia risk at 2-4 months. Helps transplant immune-critical stem cells.

### **Preterm Infants:**

Lowers the chance of necrotising enterocolitis and intraventricular haemorrhage. Boosts red blood cell volume and cuts down on the need for blood transfusions. Helps the body's blood get better after giving birth.<sup>6</sup>

### **Risks and Challenges**

#### **Lotus Birth**

The placenta, upon separation from maternal circulation, transforms into necrotic tissue, heightening vulnerability to bacterial colonisation and infection, potentially endangering the

newborn. - Absence of standardised clinical guidelines or scientific validation for methods of placenta preservation. - Risk of inadvertent cord avulsion, resulting in injury to the neonate. – Ethical issues emerge from the lack of medical consensus and the associated risks to neonates.

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### Scientific Evidences

#### Lotus Birth: Scientific Evidence

- There is limited scientific data to suggest the benefits of lotus birth. The majority of studies and expert assessments point to a lack of substantial data on neonatal safety and efficacy.
- While some anecdotal stories suggest that lotus birth can reduce stress and increase bonding, controlled trials have not supported these claims.
- The placenta's necrotic tissue after birth can harbour germs, increasing the risk of infection for newborns.
- Because of these issues, no major medical organisation recommends lotus delivery, and most urge parents to check for infection if they choose this approach.

#### Delayed Cord Clamping: Scientific Evidence

- Research strongly endorses delayed cord clamping (DCC). Research indicates that delaying cord clamping for 30–180 seconds post-delivery enhances infant blood volume, haemoglobin levels, and iron reserves, hence diminishing the likelihood of anaemia and enhancing haematological results.
- DCC in preterm newborns correlates with a 32–69% diminished risk of mortality before to discharge, a reduction in blood transfusions, and a lower occurrence of necrotising enterocolitis and intraventricular haemorrhage.
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- DCC does not elevate the risk of substantial maternal problems, including postpartum haemorrhage, and is endorsed by the World Health Organisation (WHO), the American College of Obstetricians and Gynaecologists (ACOG), and other prominent health organisations.
- Recent systematic evaluations indicate that most placental transfusion transpires within the initial 3 minutes post-delivery, and there is no data supporting the advantages of clamping beyond this timeframe.

### **Clinical Recommendations and Ethical Considerations**

International health organisations strongly advocate delayed cord clamping because there is strong evidence that it helps newborns without putting mothers at risk. It is part of the standard treatment for newborns, whether they are born vaginally or by caesarean section. On the other hand, lotus birth is still controversial and has little scientific backing. Doctors often warn against using it all the time because of the danger of infection and the lack of established care methods. Parents who want to have a lotus birth should talk to experts and think carefully about the hazards involved.<sup>7</sup>

### **Conclusion**

Lotus delivery and delayed cord clamping preserve placental blood flow to optimise the newborn's transition. Scientific research shows that delayed cord clamping has haematological and immunological benefits with little hazards. Lotus birth is culturally and spiritually significant but unproven and infectious.

While respecting parental preferences and offering educated lotus birth counselling, healthcare staff should prioritise evidence-based treatments like delayed cord clamping. Lotus birth needs more research to create standardised standards and safety profiles before it can be widely advised.

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