

# Deconstruction of a Birth Plan: An Evidence-Based Approach

Alexa Swailes, MD, FACOG  
Breia Loft MSN, CNM, FACNM

38<sup>th</sup> Annual Contemporary Issues in Obstetrics and  
Gynecology  
July 2024



## Objectives

**Following this presentation, participants will be able to:**

---

Identify common components of a birth plan.

---

Recall evidence-based literature that supports or refutes common birth plan requests.

---

Describe effective shared decision-making with patients as it pertains to birth plans.

---

Execute positive and productive conversations with patients related to birth plans.

---

# The power of shared decision-making





# Where did birth plans come from?

HISTORY & ORIGINATION

# Birth Plan Trivia

- Simkin and Reinke (1980): “Planning Your Baby’s Birth”<sup>1</sup>
- Opportunity for the patient, provider to discuss birthing process and how to safely accommodate patient preferences
- Acknowledges birth as a pivotal point in a woman's life, not just another day<sup>2,3</sup>

“A satisfying birth will have a lasting positive effect, just as a traumatic or unsatisfying experience will have a negative one. Creating a birth plan provides the opportunity to determine personal expectations, develop relationships with providers, and share in decision making—critical components in achieving a satisfying birth experience.”



# My Birth Plan

The Spectrum Health Family Birthplace looks forward to sharing in your baby's birth. To help us understand your wishes regarding your labor and delivery, please answer the questions below.

The safety and well-being of you and your baby is our top priority. Keeping this goal in mind, even if unexpected events arise, we will try to meet as many of your wishes as possible. Share this plan with your health care providers so they are aware of your preferences and can answer any of your questions. Bring a copy to the hospital when you come in for your baby's birth.

Name: \_\_\_\_\_  
 Your date of birth: \_\_\_\_\_  
 Due date: \_\_\_\_\_  
 Your health care provider: \_\_\_\_\_  
 Partner's name: \_\_\_\_\_  
 Baby's health care provider: \_\_\_\_\_  
 Childbirth education classes taken through:  
 Spectrum Health Healthier Communities  
 Lamaze  
 Bradley  
 Other: \_\_\_\_\_  
 None

**Labor**  
 In labor, I would like to:  
 move around and change positions throughout labor.  
 use a shower and/or a Jacuzzi tub if possible  
 have a birthing ball available  
 have a rocking chair available  
 have a squatting bar available  
 drink fluids during labor  
 play my own music during labor  
 keep the room as quiet as possible  
 dim the lights in the room.  
 be informed of all procedures and have time to discuss my choices in private, when possible  
 other: \_\_\_\_\_

At the Family Birthplace, up to five people can be with you in the labor and delivery area. Please write down those who you would like to be with you in labor.  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_

**Fetal Monitoring**  
 I would prefer occasional, instead of continuous monitoring of my baby's heart rate, if the baby's condition allows.  
 I would like to walk around during labor while the monitor is on my baby.  
 Other: \_\_\_\_\_

**Labor Progress**  
 I do not want my bag of water broken unless my baby needs special monitoring.  
 If my labor is not progressing, I would like to have my bag of water broken before other methods are used to move my labor along.  
 I would prefer to try changing positions or walking before Pitocin, a medicine that can help move labor along, is given.  
 Other: \_\_\_\_\_



# My Birth Plan

Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_  
 Partner: \_\_\_\_\_ Due Date: \_\_\_\_\_  
 Other Visitors: \_\_\_\_\_ Type of Delivery Planned: \_\_\_\_\_  
 Doula/Midwife: \_\_\_\_\_ PMH/Diagnosis: \_\_\_\_\_  
 Doctor's Name: \_\_\_\_\_

*I have given careful thought to my preferences during and after labor and have outlined them below. I understand that these are guidelines only and that under certain circumstances, they may not be followed.*

<p style="text-align: center;"><b>For Labor</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p style="text-align: center;"><b>Pain Management</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p style="text-align: center;"><b>Fetal Monitoring</b></p> <p>_____</p> <p>_____</p>	<p style="text-align: center;"><b>During Delivery</b></p> <p>_____</p> <p>_____</p> <p>_____</p>
<p style="text-align: center;"><b>Labor Induction</b></p> <p>_____</p> <p>_____</p>	<p style="text-align: center;"><b>Immediately After Delivery</b></p> <p>_____</p> <p>_____</p> <p>_____</p>
<p style="text-align: center;"><b>Postpartum/Newborn Care</b></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p style="text-align: center;"><b>In Case Of Emergency C-Section/NICU</b></p> <p>_____</p> <p>_____</p>
<p style="text-align: center;"><b>Feeding Baby Plans</b></p> <p>_____</p> <p>_____</p>	<p style="text-align: center;"><b>Other:</b> _____</p>

## Birth Plan Worksheet

NAME: \_\_\_\_\_

### ATTENDANTS

I'd like the following people to be present during labor and/or birth:

Partner: \_\_\_\_\_  
 Friend/s: \_\_\_\_\_  
 Relative/s: \_\_\_\_\_  
 Doula: \_\_\_\_\_  
 Children: \_\_\_\_\_

### AMENITIES

I'd like to:

bring music  
 dim the lights  
 wear my own clothes during labor and delivery  
 take pictures and/or video during labor and delivery

### HOSPITAL ADMISSION & PROCEDURES

I'd like the option of returning home if I'm not in active labor.

Once I'm admitted, I'd like:

my partner to be allowed to stay with me at all times  
 only my practitioner, nurse, and guests to be present (i.e., no residents, medical students, or other hospital personnel)  
 to wear my contact lenses, as long as I don't need a c-section  
 to eat if I wish to  
 to try to stay hydrated by drinking clear fluids instead of having an IV  
 to have a heparin or saline lock  
 to walk and move around as I choose

### OTHER INTERVENTIONS

As long as the baby and I are doing fine, I'd like to:

have intermittent rather than continuous electronic fetal monitoring  
 be allowed to progress free of stringent time limits and have my labor augmented only if necessary



# What Does the Evidence Say?

ABOUT POPULAR BIRTH REQUESTS



# Popular Birth Plan Patient Requests

- No induction of labor
- No oxytocin or artificial rupture of membranes (AROM)
- Intermittent fetal monitoring (IFM)
- Eating & drinking during labor
- Alternative pushing positions
- Alternative delivery positions
- Labor in water & water birth
- No episiotomy/operative vaginal delivery
- Delayed cord clamping
- Lotus birth/keeping placenta for encapsulation
- No newborn vaccines or prophylactic eye antibiotics
- No bottles/artificial nipples
- Skin-to-skin
- Rooming-in



# No Induction of Labor (IOL)

Evidence in favor of induction:

- Elevated risk of oligohydramnios, macrosomia, shoulder dystocia, perinatal and maternal mortality after 41 weeks<sup>4</sup>
- ARRIVE Trial: Induction at 39 weeks decreases Cesarean delivery rate (18.6% vs. 22%) & pre-eclampsia (9.1% vs. 14.1%)<sup>5</sup>

Evidence in favor of spontaneous physiologic birth:

- Length of labor increased with IOL: 19 hours vs 8 hours<sup>6</sup>

Management of post-term pregnancy:

- Surveillance
- Plan for delivery
- Non-pharmacologic ways to encourage labor

# No Oxytocin or Artificial Rupture of Membranes (AROM)

Evidence in favor of oxytocin:

- Synthetic form of body's natural hormone
- Using oxytocin for induction or augmentation of labor does not significantly increase Cesarean delivery rate or fetal distress compared to spontaneous labor<sup>7</sup>

Evidence in favor of AROM:

- Shortened time from transcervical balloon catheter to delivery in patients undergoing induction of labor (14 hours vs. 16 hours)<sup>8</sup>
- There is no evidence that AROM increases Cesarean delivery rates or adverse birth outcomes
- There is no evidence that delayed AROM or no AROM increases Cesarean delivery rates or adverse birth outcomes

# Intermittent Fetal Monitoring (IFM)

- Overuse of electronic fetal monitoring increases the Cesarean delivery and operative birth rates without reducing the rate of cerebral palsy (CP) or perinatal mortality or improving Apgar scores<sup>9</sup>
- ACOG: Consider IFM for low-risk women
- ACNM: IFM appropriate for low-risk women
- Know your organization's EFM policy
- Alternative: Telemetry Fetal Monitoring (blue-tooth)



# Desire for Eating & Drinking During Labor

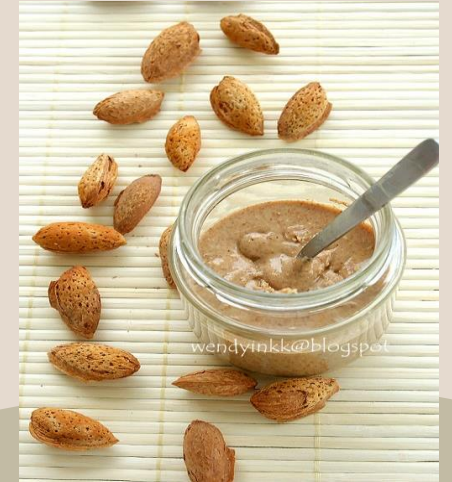
Evidence against oral intake during labor:

- 1946: “Mendelson’s syndrome”

Evidence for oral intake during labor

- 2013: Cochrane Review: “No justification for restriction of fluids and food in labor for women at low risk of complications”<sup>10</sup>

Know your organization’s policy: Don’t be afraid to challenge policies with evidence



# Desire For Alternative Pushing & Delivery Positions

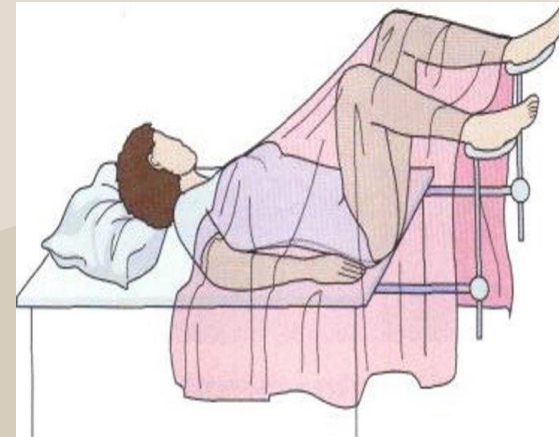
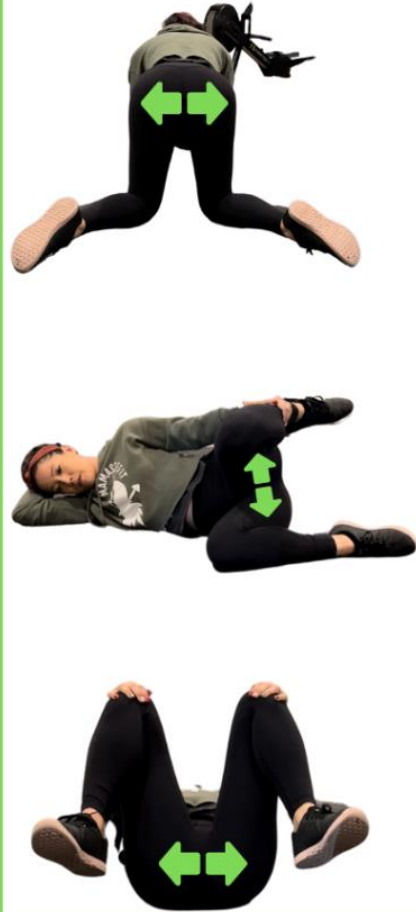
- Pushing on side can improve fetal monitoring strip.
- Physics supports knees together pushing as increasing diameter of pelvis outlet
- No evidence to support or show contraindications for pushing & delivery in different positions
- Evidence that spontaneous pushing vs. Valsalva pushing does not decrease second stage<sup>11</sup>

# Pushing Positions: Knees Together/Ankles Apart Vs. Lithotomy:

**External Rotation**



**Internal Rotation**



# Labor in Water & Water Birth



Evidence in support of water birth:

- Shorter labor, increased patient satisfaction, improved pain control without compromising neonatal outcomes (but higher incidence of postpartum hemorrhage)<sup>12</sup>
- Nursing education and detailed hospital protocols promote safe outcomes in water birth<sup>13</sup>
- ACOG Committee Opinion: “A woman who requests to give birth while submerged in water should be informed that the maternal and perinatal benefits and risks of this choice have not been studied sufficiently to either support or discourage her request.”

Evidence against water birth:

- Increased risk for perineal lacerations with water birth<sup>14</sup>
- Slight increase in infection risk<sup>15</sup>

# Episiotomy

- Evidence in support of routine episiotomy:
  - None
- Evidence against routine episiotomy:
  - Systematic review/meta-analysis, 2005:
  - Does not improve severity of laceration or postpartum pain
  - Does not prevent fecal or urinary incontinence
  - Does not prevent sexual dysfunction

*“Evidence does not support maternal benefits traditionally ascribed to routine episiotomy. In fact, outcomes with episiotomy can be considered worse since some proportion of women who would have had lesser injury instead had a surgical incision.”<sup>16</sup>*

- Episiotomies have decreased from 34% to 8.4%<sup>17</sup>
- ACOG Practice Bulletin, 2016: “Obstetrician-gynecologists should take steps to mitigate obstetric lacerations during vaginal delivery rather than using routine episiotomy.”<sup>18</sup>



# Operative Vaginal Delivery

Evidence in support of operative vaginal delivery (vs. CD):

- A low forceps delivery had better neonatal outcomes vs Cesarean delivery, no difference between forceps and vacuum assisted for neonatal outcomes<sup>19</sup>

Evidence against operative vaginal delivery (vs. SVD):

- Operative delivery is associated with increased incidence of postpartum hemorrhage, perineal and vaginal lacerations, neonatal intracranial hematoma<sup>19</sup>

# Delayed Cord Clamping

- Evidence for delayed cord clamping
  - Decreased incidence of fetal bradycardia<sup>20</sup>
  - Increased hemoglobin levels at birth, increased iron stores in first 6 months of life without substantial increased risk of postpartum hemorrhage or retained placenta<sup>21</sup>
  - Reduced risk of neonatal death prior to hospital discharge<sup>22</sup>
  - No difference in maternal or infant outcomes for delayed vs. immediate cord clamping in Cesarean deliveries<sup>23</sup>
  - No difference in fetal outcomes including anemia with DCC, cord milking, ICC<sup>24</sup>
- Evidence against delayed cord clamping:
  - Small increased incidence of jaundice and need for phototherapy

# Lotus Birth & Placental Encapsulation



# Lotus Birth/Umbilical Non-Severance

- Practice of leaving placenta and umbilical cord intact until natural separation occurs
- Focuses on the principal of nonviolence
- It originated from Claire Lotus Day while pregnant in 1974 questioned the practice of cutting the umbilical cord after birth because chimpanzees did not practice this. She transferred this model over to human birth citing that babies know when the separation from the placenta needs to occur.

# Lotus Birth Evidence

- Evidence in favor of lotus birth:
  - None
- Evidence against lotus birth:
  - Infection
  - Sepsis
  - Jaundice<sup>25</sup>
- If patient insists on lotus birth, discuss ways to mitigate infection: good handwashing, adequate skin cleansing of baby, proper care of placenta in impermeable carrying bag with proper additives<sup>25</sup>

# Placental Encapsulation/Ingestion

- Encapsulation is a popular method of consumption which involves steaming and drying the placenta and placing it into capsules for consumption by the new mother.
- Other ingestion methods include cooking, drying and for the new mother to eat larger pieces in the first 2-7 days postpartum.

# Placenta Ingestion Evidence

- Evidence supporting placental ingestion:
  - None
- Evidence against placental ingestion:
  - Does not reduce postpartum depression or decrease healing time<sup>26</sup>
  - Risk of infection in setting of chorioamnionitis or GBS+ <sup>26</sup>
  - Moderate amount of minerals such as iron, selenium, copper, zinc were found in human placenta, but also trace amounts of lead, arsenic, mercury, & uranium<sup>27</sup>
  - No evidence that supports increased postpartum energy level<sup>28</sup>
  - No changes in levels of hemoglobin, ferritin, or transferrin in RCT<sup>29</sup>
- CDC: placental ingestion should be avoided owing to inadequate eradication of infectious pathogens during the encapsulation process

# Newborn Birth Plan Requests

- No vaccines or prophylactic eye ointment
- No pacifiers or bottles
- First assessment on mom while skin-to-skin
- All exams & procedures completed in room





# No Vaccines Or Eye Ointment In Hospital

- Vitamin K:
  - Used to prevent intracranial bleeding until baby can produce Vitamin K-dependent coagulation factors<sup>30</sup>
  - Vitamin K has poor placental transfer, neonatal levels low<sup>30</sup>
  - Deficiency previous cause of classic hemorrhagic disease of newborn<sup>30</sup>
  - Parent's trust is gone: no circumcision<sup>31</sup>
- Hep B:
  - AAP recommendation: start the series!
  - Often silently carried in adults, including mother
  - 90% of infants infected at birth develop chronic disease
  - Hold if low birth weight (<2kg) or premature infant at pediatrician/NICU request, administer at 1 month
- Erythromycin eye ointment:
  - Protects against neonatal conjunctivitis and gonococcal ophthalmia neonatorum which can cause corneal scarring, ocular perforation, and blindness as soon as 24h postpartum
    - GON 0.2-1.6 cases/100,000 live births
  - No evidence of harm, avoids chemical conjunctivitis associated with other available agents (ocular gentamicin, silver nitrate)





## No Bottles or Artificial Nipples

- Evidence of harm:
  - Nipple confusion can occur if artificial nipple is introduced too soon, but there are certain times a pacifier can help infants and promote breastfeeding<sup>32</sup>
  - Early and frequent breastfeeding is best way to promote stable blood sugar in baby even in premature infants or infants of diabetic moms<sup>33</sup>
- Need to follow mom's preference and make recommendations using shared decision-making method.

## Rooming In & All Exams/Procedures in Mom's Room

- Baby rooming-in increases patient satisfaction, increases breastfeeding rates, decreases baby falls<sup>34</sup>
- Rooming-in can increase maternal fatigue and have a negative impact on maternal/infant bonding if not implemented in a flexible way<sup>35</sup>
- Immediate and sustained skin-to-skin contact increases thermoregulation, decreases fetal and maternal emotional distress (i.e. baby crying, fidgeting) during procedures/exams<sup>36</sup>

# Navigating a shared decision-making birth plan discussion

1. Know your stuff including hospital policies
2. Anticipate common questions
3. Use non-confrontational verbiage
4. Don't be afraid to inform patient that your practice/organization can't meet their desires & offer alternatives.

Maintaining composure during the Q&A session is essential for relationship building with your patient. Consider the following tips for staying composed:

- Actively listen
- Pause and reflect
- Sit down in room
- Maintain eye contact
- Reassure patient care discussions will happen throughout the labor & can be fluid

# Birth Experience Impact

- Birth trauma
- PTSD
- Perinatal depression
- Difficulty bonding with baby
- Fear before and during next pregnancy & birth

These outcomes can be mitigated or avoided by making sure patients have a voice and are active participants in their own birth experience



# References

1. Simkin, P., Reinke, C. Planning Your Baby's Birth. 1980.
2. Simkin, P. Just another day in a woman's life? Women's long-term perceptions of their first birth experience. Part 1. Birth. 1991 Dec;18(4):203-10. doi: 10.1111/j.1523-536x.1991.tb00103.x. PMID: 1764149.
3. Simkin P. Just another day in a woman's life? Part II: Nature and consistency of women's long-term memories of their first birth experiences. Birth. 1992 Jun;19(2):64-81. doi: 10.1111/j.1523-536x.1992.tb00382.x. PMID: 1388434.
4. Maoz, O., Wainstock, T., Sheiner, E., & Walfisch, A. (2019). Immediate perinatal outcomes of postterm deliveries. Journal of Maternal-Fetal & Neonatal Medicine, 32(11), 1847-1852. <https://doi.org/10.1080/14767058.2017.1420773>
5. Grobman, W. A, Rice, M.M., Reddy, U.M>, Alan, T.N., Silver, R.M., Mallett, G, Hill, K. (2018). Labor induction versus expectant management in low-risk nulliparous women | new england journal of medicine. The New England Journal of Medicine, 379(6), 513-523. <https://doi.org/10.1056/NEJMoa1800566>
6. Sangwan, V., Khandelwal, S., Upadhaya, M., Lakra, P., Sangwan, M., Siwach, S., & Mahendru, R. (2022). A comparative study of maternal-fetal outcomes in pregnant women with induction of labor and spontaneous onset of labor in a rural tertiary care center. International Journal of Childbirth, 12(2), 100-106. <https://doi.org/10.1891/IJC-2021-0004>
7. Clark, R. R. S., Warren, N., Shermock, K. M., Perrin, N., Lake, E., & Sharps, P. W. (2021). The role of oxytocin in primary cesarean birth among Low-Risk women. Journal of Midwifery & Women's Health, 66(1), 54-61. <https://doi.org/10.1111/jmwh.13157>
8. Berry M, Lamiman K, Slan MN, Zhang X, Arena Goncharov DD, Hwang YP, Rogers JA, Pacheco LD, Saade GR, Saad AF. Early vs delayed amniotomy following transcervical Foley balloon in the induction of labor: a randomized clinical trial. Am J Obstet Gynecol. 2024 May;230(5):567.e1-567.e11. doi: 10.1016/j.ajog.2024.01.028. Epub 2024 Feb 15. PMID: 38367749.
9. Anderson, Kathryn, Jean Salera-Vieira, and Elisabeth Howard. "The Evidence for Intermittent Auscultation." The Journal of Perinatal & Neonatal Nursing 37.3 (2023): 173-177.
10. Singata, M., Tranmer, J. (2013, August 22,). Eating and drinking in labour. Retrieved May 22, 2024, from /CD003930/PREG\_eating-and-drinking-in-labour

# References

11. Lee, A. (2024). Effectiveness of spontaneous pushing versus valsalva pushing in the second stage of labor on maternal and neonatal outcomes: A systematic review and meta-analysis. *Pacific Rim International Journal of Nursing Research*, 28(2), 407-420. <https://doi.org/10.60099/prijnr.2024.264145>
12. Neiman, E., Austin, E., Tan, A., Anderson, C. M., & Chipps, E. (2020). Outcomes of waterbirth in a US Hospital-Based midwifery practice: A retrospective cohort study of water immersion during labor and birth. *Journal of Midwifery & Women's Health*, 65(2), 216-223. <https://doi.org/10.1111/jmwh.13033>
13. Bartlett, J. (2017). Water birth in the hospital setting. *International Journal of Childbirth Education*, 32(2), 19-25. <http://libdata.lib.ua.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cul&AN=123698140&site=ehost-live&scope=site>
14. Papoutsis, D., Antonakou, A., Gornall, A., & Tzavara, C. (2021). The incidence of and predictors for severe perineal trauma and intact perineum in women having a waterbirth in England: A hospital-based study. *Journal of Women's Health* (15409996), 30(5), 681-688. <https://doi.org/10.1089/jwh.2019.8244>
15. Vanderlaan, J., & Hall, P. (2020). Systematic review of case reports of poor neonatal outcomes with water immersion during labor and birth. *Journal of Perinatal & Neonatal Nursing*, 34(4), 311-323. <https://doi.org/10.1097/JPN.0000000000000515>
16. Hartmann K, Viswanathan M, Palmieri R, Gartlehner G, Thorp J, Lohr KN. Outcomes of Routine Episiotomy: A Systematic Review. *JAMA*. 2005;293(17):2141–2148. doi:10.1001/jama.293.17.2141
17. Dillon, S. J., Nelson, D. B., Spong, C. Y., McIntire, D. D., & Leveno, K. J. (2024). Episiotomy: Evolution of a common obstetric practice at a public hospital. *American Journal of Perinatology*, 41(1), 39-43. <https://doi.org/10.1055/s-0041-1739410>
18. Prevention and Management of Obstetric Lacerations at Vaginal Delivery. American College of Obstetricians and Gynecologists. 2016.
19. Halscott, T. L., Reddy, U. M., Landy, H. J., Ramsey, P. S., Iqbal, S. N., Grantz, K. L., & Huang, C. (2015). Maternal and neonatal outcomes by attempted mode of operative delivery from a low station in the second stage of labor. *Obstetrics & Gynecology*, 126(6), 1265-1272. <https://doi.org/10.1097/AOG.0000000000001156>
20. Kc, A., Kong, S. Y. J., Haaland, S. H., Eilevstjønn, J., Myklebust, H., Bastola, R. C., Wood, T. R., Niermeyer, S., & Berkelhamer, S. (2023). Increased risk of bradycardia in vigorous infants receiving early as compared to delayed cord clamping at birth. *Journal of Perinatology*, 43(6), 709-715. <https://doi.org/10.1038/s41372-022-01593-1>

# References

21. McDonald, Susan J., et al. "Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes." *Evidence-Based Child Health: A Cochrane Review Journal* 9.2 (2014): 303-397.
22. Rabe, Heike, et al. "Effect of timing of umbilical cord clamping and other strategies to influence placental transfusion at preterm birth on maternal and infant outcomes." *Cochrane Database of Systematic Reviews* 9 (2019).
23. Welsh, S., Elwell, J., Manister, N. N., & Gildersleeve, R. K. (2020). Implementing delayed umbilical cord clamping in cesarean birth using a novel method: A pilot study of feasibility and safety. *Journal of Midwifery & Women's Health*, 65(1), 109-118. <https://doi.org/10.1111/jmwh.13075>
24. Gomersall, J., Berber, S., Middleton, P., McDonald, S. J., Niermeyer, S., El-Naggar, W., Davis, P. G., Schmölzer, G. M., Ovelman, C., & Soll, R. F. (2021). Umbilical cord management at term and late preterm birth: A meta-analysis. *Pediatrics*, 147(3), 1-17. <https://doi.org/10.1542/peds.2020-015404>
25. Steer-Massaro, C. (2020). Neonatal omphalitis after lotus birth. *Journal of Midwifery & Women's Health*, 65(2), 271-275. <https://doi.org/10.1111/jmwh.13062>
26. Farr, A, Chervenak, McCullough, L., Baergen, R., Grunebaum, A. (2018). Human placentophagy: A review - ScienceDirect. *American Journal of Obstetrics and Gynecology*, 218(4), 401.e1-401.e11. <https://doi.org/https://doi.org/10.1016/j.ajog.2017.08.016>
27. Young, S. M., Gryder, L. K., David, W. B., Teng, Y., Gerstenberger, S., & Benyshek, D. C. (2016). Human placenta processed for encapsulation contains modest concentrations of 14 trace minerals and elements. *Nutrition Research*, 36(8), 872-878. <https://doi.org/10.1016/j.nutres.2016.04.005>
28. Beacock, M. (2012). Does eating placenta offer postpartum health benefits? *British Journal of Midwifery*, 20(7), 464-469. <http://libdata.lib.ua.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cul&AN=104493645&site=ehost-live&scope=site>
29. Gryder, Laura K., et al. "Effects of human maternal placentophagy on maternal postpartum iron status: A randomized, double-blind, placebo-controlled pilot study." *Journal of Midwifery & Women's Health* 62.1 (2017): 68-79
30. Vitamin K: Fact Sheet for Health Professionals. National Institutes of Health. <https://ods.od.nih.gov/factsheets/VitaminK-HealthProfessional/>. Accessed 24 July 2024.



# References

21. Shah, S. I., Brumberg, H. L., & La Gamma, E. F. (2020). Applying lessons from vaccination hesitancy to address birth dose vitamin K refusal: Where has the trust gone? *Seminars in Perinatology*, 44(4), N.PAG-N.PAG. <https://doi.org/10.1016/j.semperi.2020.151242>
22. Lubbe, W., Ham-Baloyi, W. t., & Ten Ham-Baloyi, W. (2017). When is the use of pacifiers justifiable in the baby-friendly hospital initiative context? A clinician's guide. *BMC Pregnancy & Childbirth*, 17, 1-10. <https://doi.org/10.1186/s12884-017-1306-8>
23. Ling, X., Zhang, Y., Xuan, L. P., Ma, J., Jiang, W., Song, Y., & Zhang, Q. Q. (2022). Study on the effect of early comprehensive intervention of skin contact combined with breastfeeding on improving blood glucose in early birth of newborns with gestational diabetes mellitus. *BioMed Research International*, , 1-8. <https://doi.org/10.1155/2022/2305239>
24. Beal, Judy, Dalton, Marcia, Maloney, Joyce. (2015, April). Should Mother–Baby rooming-in be the standard of care? : *MCN: The american journal of maternal/child nursing*. LWW. Retrieved May 25, 2024, from [https://journals.lww.com/mcnjournal/fulltext/2015/03000/should\\_mother\\_baby\\_rooming\\_in\\_be\\_the\\_standard\\_of.2.aspx](https://journals.lww.com/mcnjournal/fulltext/2015/03000/should_mother_baby_rooming_in_be_the_standard_of.2.aspx)
25. Stocker, J. (2015). Postpartum fatigue, baby-care activities, and maternal-infant attachment of vaginal and cesarean births following rooming-in. *Applied Nursing Research*, 28(2), 116-120. <https://doi.org/10.1016/j.apnr.2014.08.002>
26. Immediate and sustained skin-to-skin contact for healthy late preterm and term newborns after birth: AWHONN practice brief number 14. (2021). *Nursing for Women's Health*, 25(5), e9-e11. <https://doi.org/10.1016/j.nwh.2021.07.003>



Thank you!