

The Bottom Line: When is Induction Appropriate?



When a pregnancy is considered healthy and low-risk, when is the best time for a baby to be born? Although experts define pregnancies lasting between 37 and 42 weeks as “term” and as “normal,” some healthcare providers and organizations recommend routine induction at 39, 40, or 41 weeks. When looking at current guidelines from professional organizations, you will find support for routine induction as early as 39 weeks. But you may be surprised to also find support for waiting until 42 weeks to routinely induce. A policy of waiting until 42 weeks will allow most healthy women to go into labor spontaneously since it is estimated that only 10% of pregnancies naturally go past 42 weeks (294 days)¹.

Let’s take a look at the evidence and at what professional organizations say about routine induction of labor.

WHAT RECENT EVIDENCE SAYS	WHAT PROFESSIONAL ORGANIZATIONS SAY
<p>Cochrane Library, 2018 (considered the “gold standard” for research)</p> <p>Researchers looked at evidence mostly of moderate quality. “The trials compared a policy to induce labor at or later than term (usually after 41 completed weeks of gestation [>287 days]) with waiting for labour to start and/or waiting for a period before inducing labour.”</p> <p>They found, “A policy of labour induction at or beyond term compared with expectant management is associated with fewer perinatal deaths and fewer cesarean sections; but more operative vaginal births. NICU admissions were lower and fewer babies had low Apgar scores with induction. No important differences were seen for most of the other maternal and infant outcomes.... The optimal timing of offering induction of labour to women at or beyond term warrants further investigation...”²</p>	<p>World Health Organization, 2018 (Both conditional recommendations, low-certainty evidence)</p> <ul style="list-style-type: none"> • “Induction of labour is recommended for women who are known with certainty to have reached 41 weeks (>40 weeks + 7 days) of gestation.”⁶ • “Induction of labour is not recommended for women with an uncomplicated pregnancy at gestational age less than 41 weeks.”⁶
<p>ARRIVE Trial, <i>New England Journal of Medicine</i>, 2018</p> <p>To determine if routine induction at 39 weeks of gestation improves neonatal and maternal outcomes, a RCT of approximately 6100 women was carried out from 2014 until 2018 in 41 hospitals across the U.S.</p> <p>The RCT compared nulliparous low-risk women who were assigned to be induced at 39 0/7 weeks to 39 4/7 weeks (routine induction group) to women who were assigned to either go into labor spontaneously or be induced between 40 5/7 weeks and 42 2/7 weeks (expectant management [EM] group). The primary outcome was a composite of adverse perinatal events; the secondary outcome was cesarean delivery. Researchers found no significant difference between the two groups in the composite of adverse perinatal events and a small reduction in the cesarean rate from 22.2% (EM) to 18.6% in the routine induction group.³</p> <p>There are concerns about the generalizability of this study and some have questioned whether routine inductions in all settings will lower the risk for cesarean surgery.⁴</p>	<p>American College of Obstetricians and Gynecologists, 2018 (Based on the August 2018 publication of the ARRIVE Trial) “ACOG and SMFM...determined that it is reasonable for obstetric care providers to offer an induction to low-risk women [at 39 weeks] after discussing the options thoroughly...”⁷</p> <p>Women must be healthy and low-risk with a due date confirmed by ultrasound early in the pregnancy.</p>
<p>JBI Database of Systematic Reviews, 2018</p> <p>“Induction prior to post-term was associated with few beneficial outcomes and several adverse outcomes...Hence, our results do not support the widespread use of routine induction prior to post-term (41 + 0-6 gestational weeks).”⁵</p>	<p>American College of Nurse-Midwives, 2017</p> <p>ACNM consistently promotes the spontaneous onset of labor for healthy women. In their 2017 “Share with Women” handout, they say that induction is usually recommended when, “You are 2 weeks or more past your due date.”⁸</p> <p>Following the publication of the ARRIVE Trial, ACNM reaffirmed their commitment to promoting normal physiologic birth⁹, which they define in other publications as including the spontaneous onset of labor.¹⁰</p>
	<p>Society of Obstetricians and Gynaecologists of Canada, 2017 Recommendations:</p> <p>“6. Women should be offered induction at 41+0 to 42+0 weeks, as the present evidence reveals a decrease in perinatal mortality without increased risk of Caesarean section. 7. Antenatal testing used in the monitoring of the 41–to 42–week pregnancy should include at least a non-stress test and an assessment of amniotic fluid volume.”¹¹</p>
	<p>Williams Obstetrics, 2018, page 841</p> <p>“...We consider 41-week pregnancies without other complications to be normal. Thus, no interventions are practiced solely based on fetal age until 42 completed weeks.”¹²</p>

REFERENCES

1. Bergsjö, P., Denman III, D.W., Hoffman, H.J. & Meirik, O. (1990). Duration of human singleton pregnancy: A population-based study. *Acta Obstet Gynecol Scand*, 69(3), 197-207.
2. Middleton, P., Shepherd, E. & Crowther, C.A. (2018). Induction of labour for improving birth outcomes for women at or beyond term. *Cochrane Database of Systematic Reviews 2018*, issue 5.art.no. CD004945.
3. Grobman, W. A., et al. (2018). Labor induction versus expectant management in low-risk nulliparous women. *New England Journal of Medicine*, 379(6), 513-523.
4. Goer, H. (2018). Parsing the ARRIVE Trial: Should first-time parents be routinely induced at 39 weeks? *Science & Sensibility* (blog), August, 14, 2018. <https://bit.ly/2MIK mzS>
5. Rydahl, E., Eriksen, L. & Juhl, M. (2018). Effects of induction of labor prior to post-term in low-risk pregnancies: a systematic review. *JBI Database of Systematic Reviews and Implementation Reports*, 2018 Oct 5. doi: 10.11124/JBISRIR-2017-003587. [Epub ahead of print].
6. World Health Organization. (2018). WHO recommendations: Intrapartum care for a positive childbirth experience. www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/
7. American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine (SMFM). (2018). *Leaders in obstetric care respond to the published results of the ARRIVE trial*. <https://bit.ly/2MrQ9mN>
8. American College of Nurse-Midwives (ACNM). (2018). *ACNM responds to the release of ARRIVE trial study results: Acknowledging quality of study but raises concerns about potential for misapplying results*. <https://bit.ly/2MWOW3O>
9. American College of Nurse-Midwives (ACNM). (2017). Share with women: Induction of labor. *Journal of Midwifery and Women's Health*, 62(4), 509-510.
10. American College of Nurse-Midwives (ACNM), Midwives Alliance of North America (MANA), and the National Association of Certified Professional Midwives (NACPM). (2012). Supporting healthy and normal physiologic childbirth: A consensus statement by ACNM, MANA, and NACPM. <https://bit.ly/2w6nERY>
11. Society of Obstetricians and Gynaecologists of Canada. (2017). Practice guideline #214: Guidelines for the management of pregnancy at 41+0 to 42+0 weeks. *Journal of Obstetrics and Gynaecology Canada*, 39(8), e164-e174.
12. Cunningham, F.G., Leveno, K.J., Bloom, S.L., Dashe, J.S., Hoffman, B.L., Casey, B.M. & Spong, C.Y. (2018). *Williams Obstetrics*. New York, NY: McGraw Hill Education.

Also recommended:

1. Amis, D. (2019). Healthy birth practice #1: Let labor begin on its own. *Journal of Perinatal Education*, 28(2), 68-80.
2. Dekker, R. (2016). Labour induction for later-term or post-term pregnancy. *Women and Birth*, 29(4), 394-398.
3. Smith, G.C.S. (2001). Use of time to event analysis to estimate the normal duration of human pregnancy. *Human Reproduction*, 16(7), 1497-1500.



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