

Quick Facts About Labor Induction

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Many pregnant women in the United States experience medical induction of labor (that is, when a care provider uses a drug and/or physical method to try to cause labor to begin before it starts on its own). This is a major childbirth intervention, as it shortens the period of fetal development (gestational age), cuts off important preparations in the woman and fetus at the end of pregnancy for labor and beyond and exposes both to drugs and other techniques.

National birth certificate data from 2014 indicate that 23 percent of pregnant women experienced labor induction that year. However, numerous studies have found that induction is undercounted on birth certificates. In Childbirth Connection's most recent national *Listening to Mothers* survey, 41 percent of women who gave birth in hospitals in 2011-2012 reported that their care provider had tried to induce their labor. About three in four of those reported that these efforts had caused their labor to begin, resulting in 30 percent of all pregnancies with medically induced labor.

The survey participants reported using many different methods of labor induction. The most common method was use of synthetic oxytocin (Pitocin, 63 percent), a "high-alert" medication with possible unintended effects, followed by breaking of membranes (39 percent). Many women used more than one method. Reasons provided were a mix of medical reasons with good research support, medical reasons lacking good research support and non-medical (convenience) reasons. This fact sheet reviews some key points about labor induction.

When is the safest point in pregnancy for the baby to be born?

Just as infants reach developmental milestones like rolling over or crawling at different times, every baby is ready to be born at a slightly different time. The most reliable sign that the baby is ready to be born safely is when labor begins on its own at full term.

When is "full term"?

In the past, full term was defined as any time between 37 and 42 weeks of pregnancy. However, more and more research shows that babies born before 39 weeks face a higher risk of several health problems than babies born after 39 weeks. For this reason, labor induction or planned cesarean section should never be used before 39 weeks unless there is a clear medical reason.

For optimal outcomes, women may wish to avoid elective delivery (induction or cesarean without a clear medical reason) at 40 or 41 weeks and to make informed decisions about elective induction after 41 weeks. “Full term” is now used for pregnancy weeks 39 and 40, and weeks 37 and 38 are called “early term.”

How may induction affect my health, my baby's health or my birth experience?

In women having their first baby, or if the cervix (the lower part of the uterus) is not soft and ready to open, elective induction before 41 weeks may increase the chance of having a cesarean birth. Cesareans have their own risks, including infection, a longer recovery time and problems in future pregnancies. (For more information, see ChildbirthConnection.org/giving-birth/C-section). Using medications or procedures to “ripen” the cervix may not decrease the chance of a cesarean.

Women having induced labor are more likely to request an epidural for pain relief than women whose labor begins on its own. Epidurals introduce their own set of risks, including increased chance of vaginal birth with vacuum extractor or forceps and fever in labor. Fever is often treated with antibiotics and may result in avoidable tests and treatments for the baby and separation of mother and baby after birth.

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Induction of labor nearly always involves having at least one intravenous (IV) line, continuous electronic fetal monitoring and medications after birth to reduce the risk of hemorrhage (excessive bleeding). The IV and fetal monitoring lines make it harder to move around in labor, which can increase pain and reduce labor progress. Policies of many hospitals restrict what women can eat and drink when undergoing labor induction.

Induced labor tends to be longer than labor that starts on its own because the induction method and accompanying interventions are working to shift your body from not being in labor to being in labor.

When is it beneficial to induce labor?

According to the best available research, there are three situations that occur at the end of pregnancy when women or newborns are likely to benefit from induction:

- ▶ Pre-labor rupture of membranes (broken water) after 37 weeks. In this case, inducing labor may reduce the risk of infection or admission to the neonatal intensive care unit (NICU).
- ▶ Pregnancy that has lasted more than 41 weeks: Although stillbirth is rare, the risk increases after 41 weeks and induction after 41 weeks may decrease this risk.
- ▶ High blood pressure at full term: Induction of labor reduces the chance that the woman will develop severe high blood pressure or related complications.

What common reasons given for induction are not supported by rigorous research?

For some common conditions, available research suggests induction is ineffective, harmful or both. Despite the research, many care providers continue to recommend induction of labor for these reasons.

They include:

- ▶ Suspected macrosomia (baby may be large): Inducing labor when the care provider believes the baby may be large does not improve newborn outcomes and may increase the chance that the woman will have a cesarean birth.
- ▶ Intrauterine growth restriction (too small baby) before 37 weeks: Induction in this situation increases the chance of a C-section and may increase the chance the baby will have developmental disabilities.
- ▶ Preterm pre-labor rupture of membranes (PPROM): Inducing labor when membranes have broken between pregnancy weeks 34 and 37 is not better than waiting for labor to begin with respect to cesarean birth or infection or breathing problems in babies.

For other conditions, the effectiveness of induction has not been proven. More research is needed to understand whether induction would be of value for twin pregnancy, gestational diabetes requiring insulin, intrauterine growth restriction (too small baby) at full term or oligohydramnios (too little amniotic fluid).

How can I lower my chance of being induced unnecessarily?

- ▶ Find a doctor or midwife with a low induction rate. Some care providers have much lower induction rates than others. Although there are many exceptions, midwives tend to have lower rates of induction than doctors.
- ▶ Choose a birth setting with a low induction rate. Some hospitals have far lower rates of induction than others. Some hospitals have quality improvement programs to reduce their induction rates, including programs to avoid scheduling births before the 39 weeks of pregnancy whenever possible. In general, rates of intervention are much lower for out-of-hospital birth centers and at-home births compared with hospitals.
- ▶ Educate yourself about the different reasons women are induced and the evidence (or, in many cases, the lack of evidence) supporting these reasons. Consider declining labor induction for reasons that lack good research support or are disproven (informed refusal). For example, induction because the baby may be getting quite large doesn't improve outcomes and may increase risk.
- ▶ Do your best to make sure your estimated due date (EDD) is accurate. An EDD is often calculated from the first day of the last menstrual period, which assumes the woman's menstrual cycle is 28 days long. If your cycles are longer or shorter than 28 days, or if they are irregular in length, tell your care provider. An ultrasound early in pregnancy can provide a more accurate estimate of your EDD. A later ultrasound is not a good way to estimate your due date.
- ▶ Remember, your estimated due date is based on averages. You will likely go into labor on your own schedule, earlier or later than the predicted date.

Is labor induction a possible tool for cesarean reduction?

Labor induction has been associated with increased likelihood of cesarean birth for some groups of women: first-time mothers and women whose cervix is not soft and ready to open (“ripe”). For other women or for women overall at full term, systematic reviews have found that labor induction either does not impact the likelihood of cesarean birth or is associated with reduced likelihood of cesarean birth. Quality improvement programs to avoid elective induction in first-time mothers with an

“unripe” cervix (not soft and ready to open) have successfully reduced cesarean rates. This diversity of conclusions is confusing to pregnant women and others!

Some are beginning to talk about inducing labor when there is no medical reason as a method of cesarean reduction. Childbirth Connection does not support induction without a clear medical reason, including for cesarean prevention, because:

- ▶ Researchers need to make sense of the different conclusions about cesarean after induction and factors that could influence results (e.g., how studies were conducted, which women were included and what other practices were used in the research settings).
- ▶ Labor induction is a major intervention that cuts short important preparations for safe, smooth labor and beyond that take place in the body of a woman and her fetus up to the time when labor starts on its own.
- ▶ Labor induction exposes both woman and fetus to the drugs and other practices used to start labor.

We do not at present understand well the possible harms of making pregnancy shorter and using the various methods for starting labor. These may have an adverse effect on important outcomes such as severe bleeding after birth (postpartum hemorrhage), getting breastfeeding started, maternal mood, maternal behavior and mother-baby attachment. You can stay on the safe side by avoiding these when there is no clear need. There are many clearly effective and safer ways to reduce the likelihood of cesarean birth.

Learn more at ChildbirthConnection.org/giving-birth/labor-induction

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