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Tests and Procedures

Labor induction

By Mayo Clinic Staff

Labor induction — also known as inducing labor — is a procedure used to stimulate uterine contractions during pregnancy before labor begins on its own. Successful labor induction leads to a vaginal birth. A health care provider might recommend labor induction for various reasons, primarily when there's concern for a mother's health or a baby's health.

Labor induction carries various risks, including infection and the need for a C-section. Sometimes the benefits of labor induction outweigh the risks, however. If you're pregnant, understanding why and how labor induction is done can help you prepare.

To determine if labor induction is necessary, your health care provider will evaluate several factors, including your health, your baby's health, your baby's gestational age and size, your baby's position in the uterus, and the status of your cervix. Labor induction might be recommended if:

- You're approaching two weeks beyond your due date, and labor hasn't started naturally
- Your water has broken, but you're not having contractions
- There's an infection in your uterus
- Your baby has stopped growing at the expected pace
- There's not enough amniotic fluid surrounding the baby (oligohydramnios)
- Your placenta has begun to deteriorate
- The placenta peels away from the inner wall of the uterus before delivery — either partially or completely (placental abruption)
- You have a medical condition that might put you or your baby at risk, such as high blood pressure or diabetes

Sometimes labor induction is a practical matter. If you live far from the hospital or birthing center or you have a history of rapid deliveries, a scheduled induction might help you avoid an unattended delivery. In such cases, your health care provider will confirm that your baby's gestational age is at least 39 weeks or older before induction to reduce the risk of health problems for your baby.

Some women request labor induction for convenience or to avoid causing a sudden disruption at home or work, but that's generally not recommended. Unnecessary intervention poses unnecessary risks — such as a possible C-section, which also increases recovery time and costs. Trust your health care provider to help you make the best decision in your case.

Labor induction carries various risks, including:

- **The need for a C-section.** Labor induction is more likely to result in the need for a C-section — particularly if you've never given birth before and your cervix hasn't already begun to thin, soften and dilate (unfavorable cervix).
- **Premature birth.** Inducing labor too early might result in a premature birth. This poses risks for the baby, such as difficulty breathing.
- **Low heart rate.** The medication used to induce labor — oxytocin or a prostaglandin — might provoke too many contractions, which can diminish your baby's oxygen supply and lower your baby's heart rate.
- **Infection.** Labor induction increases the risk of infection for both mother and baby.
- **Umbilical cord problems.** Labor induction increases the risk of the umbilical cord slipping into the vagina before delivery (umbilical cord prolapse), which might compress the cord and decrease the baby's oxygen supply.
- **Uterine rupture.** Uterine rupture is a rare but serious complication in which the uterus tears open along the scar line from a prior C-section or major uterine surgery. An emergency C-section is needed to prevent life-threatening complications.
- **Bleeding after delivery.** Labor induction increases the risk that your uterine muscles won't properly contract after you give birth (uterine atony), which can lead to serious bleeding after delivery.

Labor induction isn't appropriate for everyone. Labor induction might not be an option if:

- You've had a prior C-section with a classical incision or major surgery on your uterus
- The placenta is blocking your cervix (placenta previa)
- Your baby is lying crosswise in the uterus (transverse fetal lie)
- You have an active genital herpes infection
- Your birth canal is too small to allow for a normal labor or birth

In addition, if you've had a prior C-section with a low transverse incision and have labor induced, you'll be closely monitored. If you've had a prior C-section or major uterine surgery and have labor induced, your health care provider will avoid certain medications to reduce the risk of uterine rupture.

Labor induction is done in a hospital or birthing center, where you and your baby can be monitored and labor and delivery services are readily available. However, some preparatory steps may be done before admission.

There are various methods for inducing labor. Depending on the circumstances, your health

care provider might:

- **Strip or sweep the amniotic membranes.** With this technique, your health care provider inserts his or her gloved finger beyond the cervical opening and rotates it to separate the amniotic sac from the wall of your uterus. This technique can be done during an office visit and doesn't truly induce labor. However, it might speed the beginning of spontaneous labor — especially if your cervix has already begun to dilate. You might experience intense cramping and spotting. If bleeding becomes heavier than a normal menstrual period, contact your health care provider.
- **Ripen your cervix.** Sometimes synthetic prostaglandins, which can be taken by mouth or placed inside the vagina, are used to dilate the cervix. In other cases, mechanical dilators are used — such as a small balloon-tipped catheter or small rods made from seaweed (laminaria). The balloon-tipped catheter is inserted beyond the cervical opening. Saline injected through the catheter expands the balloon, causing the cervix to widen. Dilators inserted into the cervix absorb moisture and get thicker, opening the cervix. Use of laminaria can cause cramping. Cervical ripening techniques are typically done in the hospital. After prostaglandin use, your contractions and your baby's heart rate will initially be monitored.
- **Break your water.** With this technique, also known as an amniotomy or rupturing the membranes, your health care provider makes a small opening in the amniotic sac with a thin plastic hook. You might feel a warm gush of fluid when the sac opens. An amniotomy is typically done only if the cervix is partially dilated and thinned and the baby's head is deep in the pelvis. Your baby's heart rate will be monitored before and after the procedure. Your health care provider will examine the amniotic fluid for traces of fecal waste (meconium).
- **Use an intravenous medication.** In the hospital, your health care provider might give you a synthetic version of oxytocin (Pitocin) — a hormone that causes the uterus to contract. Oxytocin is more effective at inducing labor if your cervix has already begun to dilate and thin. The medication is also used to augment or stimulate contractions if labor isn't progressing. Your contractions and your baby's heart rate will be continuously monitored.

Keep in mind that your health care provider might also use a combination of these methods to induce labor.

How long it takes for labor to start depends on how your body responds to the induction techniques. If your cervix needs time to ripen, it might take two days before labor begins. If you simply need a little push, you might be holding your baby in your arms in a matter of hours.

Contractions might become stronger and more painful earlier in induced labor than they would in a naturally occurring labor. If relaxation and breathing techniques aren't enough to control the pain, ask for relief. Your health care provider might recommend an epidural block or other options.

After the procedure

In most cases, labor induction leads to a successful vaginal birth. If labor induction doesn't lead to delivery, a C-section might be needed.

The issues that lead to an induction might require special care during recovery. If you have a successful vaginal delivery after induction, there might be no implications for future pregnancies. If the induction leads to a C-section, your health care provider can help you decide whether to attempt a vaginal delivery with a subsequent pregnancy or to schedule a repeat C-section.

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