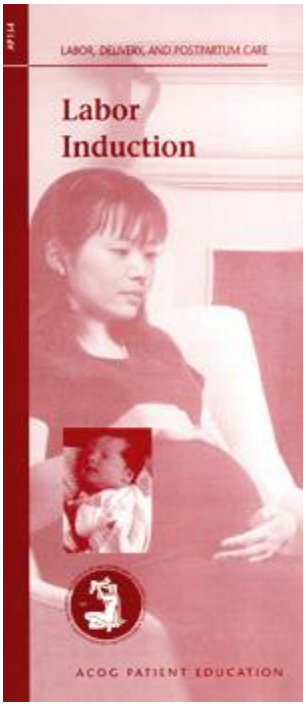


A pregnant woman goes into labor before the birth of her baby. Sometimes labor is slow to begin or progress. In these cases, medications or other methods may be used to bring on (induce) labor. This is called labor induction. If keeping a pregnancy going is more of a risk than delivering the baby, then labor may be induced. Some of the methods used to induce labor also can speed up labor if it is going too slowly. Labor is induced in up to 15% of pregnant women in the United States.

This pamphlet will explain:

- Why labor may be induced
- How it is done
- What risks are involved

About Labor

Most babies are born between 37 and 42 weeks of pregnancy. Very few babies are born on their due dates.

There are three stages of labor. The first stage of labor is the longest—active labor.

For some women, having the baby is safer than continuing the pregnancy. Your labor may be induced if you have not started labor on your own.

The second stage is the pushing phase—the birth of the baby. The third stage is the shortest—delivery of the placenta.

The ***cervix*** and ***uterus*** play key roles in labor. The cervix must be fully open (dilated) and fully thinned out (effaced) to allow the baby's head to pass through into the ***vagina*** (see box). As active labor begins, the cervix starts the process of thinning and opening.

The uterus—which is a muscle—begins to contract. During contractions, a woman may feel pain or pressure that starts in the back and moves around to her lower abdomen. Her belly will tighten and feel hard. Between contractions, the uterus relaxes and the belly softens.

The contractions are doing important work. They open the cervix, which has been tightly closed since the start of pregnancy. Contractions also help push the baby into the vagina. They will become more intense, last longer, and come closer and closer together until the birth of the baby.

During active labor, your water may break. This means the fluid-filled amniotic sac that has cushioned your baby in your uterus throughout pregnancy may rupture. Once your water is broken, contractions likely will become more intense.

Labor Defined

In the last few weeks before your due date, your doctor will examine you for changes that could signal that labor is near. Four terms are used to measure a woman's progress before and during labor:

Ripening—the softening of the cervix. Your cervix must be ripe before it can begin to thin or open.

Effacement—the thinning out of the cervix. It's measured in percentages, from 0% (no effacement) to 100% (fully effaced).

What Is Labor Induction?

Doctors may use medication or other methods to induce (bring on) labor. This may need to be done before the woman's body begins labor on its own. Labor is induced to

cause a pregnant woman's cervix to open (dilate) and thin out (efface) to prepare for the vaginal birth of her baby. More than one method of labor induction may be used.

For some women, labor induction is not a good choice (see the box). Your doctor will discuss what is the best method for you.

Why May It Be Done?

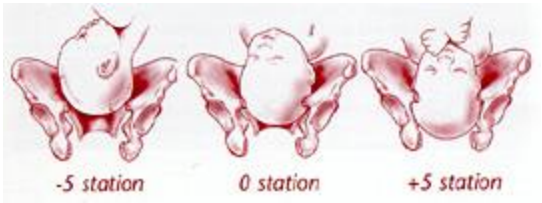
Labor may be induced if the health of the woman or baby is at risk. Whether your labor will be induced depends on the condition of you and your baby, how far along the pregnancy is, the status of your cervix, and other factors. Labor may be induced if certain conditions that affect the woman or baby occur. Following are examples of conditions that may be a reason for inducing labor:

- Your pregnancy is postterm (more than 42 weeks).
- You have high blood pressure caused by your pregnancy.
- You have health problems that could harm you or your baby.
- You have an infection in the uterus (chorio-amnionitis).
- You have abruptio placenta (the placenta has begun to separate from the inner wall of the uterus before the baby is born).
- You have premature rupture of membranes (your water has broken).

There may be other reasons why your labor may be induced. For instance, you may be induced if you live a far distance from the hospital or if you are at risk for rapid delivery.

Dilatation—the amount that the cervix has opened. It's measured in centimeters, from 0 centimeters (no dilatation) to 10 centimeters (fully dilated).

Station—where the baby's head is in relation to the ischial spines (bony landmarks on either side of the pelvis). Station is measured in numbers from –5 (the baby's head is floating above the pelvis) to +5 (the baby's head is ***crowning*** at the opening of the vagina).



How Is It Done?

There are a number of methods for starting labor. Some may be done in your doctor's office. Some methods are done in a hospital, where labor and delivery services are nearby and the fetus can be monitored.

Stripping the Membranes

To strip the membranes, your doctor checks your cervix with a gloved finger. Next, he or she sweeps the finger over the thin membranes that connect the amniotic sac to the wall of your uterus. You may feel some intense cramping and have spotting when this is done.

Stripping the membranes causes your body to release ***prostaglandins***. These hormones ripen the cervix and may cause contractions.

Stripping the membranes may be done in your doctor's office or in the hospital. If bleeding becomes heavy, call your doctor.

Rupturing the Amniotic Sac

If it hasn't broken already, breaking your water can get contractions started. Your doctor may make a small opening in the amniotic sac. You may feel discomfort as this is done.

Most women go into labor within hours of their water breaking. Another method of labor induction may be added if labor does not occur.

Some Reasons Labor Should Not Be Induced Include:

- You have placenta previa (the placenta lies very low in the uterus, so that the

opening of the uterus is partially or completely covered).
- The baby is lying in a transverse position (across your uterus rather than head down).
- The umbilical cord has prolapsed (it dropped down in the vagina ahead of the baby).
- You have had some types of surgery on your uterus.

Ripening or Dilating the Cervix

If your cervix is not ready for labor, steps can be taken to make it soft and able to stretch for labor. Certain medications or devices may be used to soften and ***dilate*** your cervix.

Oxytocin

Oxytocin is a medication used to induce labor. It is a man-made hormone that causes contractions. When oxytocin is used to induce labor or make contractions stronger, it flows into your bloodstream through an intravenous (IV) tube in your arm. A pump hooked up to the IV tube controls the amount you are given.

Prostaglandin Agents

Prostaglandin agents are a type of medicine that can be used to induce labor. They are a synthetic form of prostaglandin that is similar to the chemical produced naturally by the body. It can be given by inserting it into the vagina or it can be taken by mouth. Sometimes, if the uterus does not begin to contract, a second dose may be needed.

What Are the Risks?

Although problems seldom occur with labor induction, there can be some complications:

- Change in fetal heart rate
- Increased risk of infection to woman and baby
- The umbilical cord comes out before the baby or is compressed
- Uterine rupture

Finally...

For some women, having the baby is safer than continuing the pregnancy. Your labor may be induced if you have not started labor on your own. There are a number of methods your doctor may choose to induce labor.

Glossary

Cervix: The lower, narrow end of the uterus, which protrudes into the vagina.

Crowning: The appearance of the baby's head at the vaginal opening during labor.

Dilate: Stretching of the walls of the cervix so that the opening of the cervix is widened.

Prostaglandins: Chemicals that are made by the body that have many effects, including causing the muscle of the uterus to contract, usually causing cramps.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

Vagina: A passageway surrounded by muscles leading from the uterus to the outside of the body, also known as the birth canal.

This Patient Education Pamphlet was developed under the direction of the Committee on Patient Education of the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The average readability level of the series, based on the Fry formula, is grade 6–8. The Suitability Assessment of Materials (SAM) instrument rates the pamphlets as "superior." To ensure the information is current and accurate, the pamphlets are reviewed every 18 months. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice may be appropriate.

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