

# **Labor Induction**

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#### What is labor induction?

Labor induction is the use of medications or other methods to bring on (induce) labor.

#### Why is labor induced?

Labor is induced to stimulate contractions of the *uterus* in an effort to have a vaginal birth. Labor induction may be recommended if the health of the mother or *fetus* is at risk. In special situations, labor is induced for nonmedical reasons, such as living far away from the hospital. This is called elective induction. Elective induction should not occur before 39 weeks of pregnancy.

#### What is the Bishop score?

To prepare for labor and delivery, the **cervix** begins to soften (ripen), thin out, and open. These changes usually start a few weeks before labor begins. Health care professionals use the Bishop score to rate the readiness of the cervix for labor. With this scoring system, a number ranging from 0–13 is given to rate the condition of the cervix. A Bishop score of less than 6 means that your cervix may not be ready for labor.

#### What is "ripening the cervix"?

Ripening the cervix is a process that helps the cervix soften and thin out in preparation for labor. Medications or devices may be used to soften the cervix so it will stretch (dilate) for labor.

#### How is cervical ripening performed?

Ripening of the cervix can be done with *prostaglandins* or with special devices.

## What are prostaglandins?

Prostaglandins are drugs that can be used to ripen the cervix. They are forms of chemicals produced naturally by the body. These drugs can be inserted into the vagina or taken by mouth. Some of these drugs are not used in women who have had a previous **cesarean delivery** or other uterine surgery to avoid increasing the possible risk of uterine rupture (tearing).

## What devices are used to ripen and dilate the cervix?

**Laminaria** (a substance that absorbs water) can be inserted to expand the cervix. A catheter (small tube) with an inflatable balloon on the end also can be inserted to widen the cervix.

## What is "stripping the membranes"?

Stripping the membranes is a way to induce labor. The health care professional sweeps a gloved finger over the thin membranes that connect the **amniotic sac** to the wall of your uterus. This action may cause your body to release prostaglandins, which soften the cervix and may cause contractions.

## How can rupturing the amniotic sac bring on labor?

Rupturing the amniotic sac can start contractions. It also can make them stronger if they have already begun. The health care professional makes a small hole in the amniotic sac with a special tool. This procedure, called an **amniotomy**, may cause some discomfort.

# When is amniotomy done?

Amniotomy is done to start labor when the cervix is dilated and thinned and the fetus's head has moved down into the pelvis. Most women go into labor within hours after the amniotic sac breaks (their "water breaks").

## What is oxytocin?

**Oxytocin** is a hormone that causes contractions of the uterus. It can be used to start labor or to speed up labor that began on its own. Contractions usually start about 30 minutes after oxytocin is given.

#### What are the risks associated with labor induction?

With some methods, the uterus can be overstimulated, causing it to contract too frequently. Too many contractions may lead to changes in the fetal heart rate, *umbilical cord* problems, and other problems. Other risks of cervical ripening and labor induction include the following:

- · Infection in the mother or fetus
- Uterine rupture
- Increased risk of cesarean birth
- Fetal death

Medical problems that were present before pregnancy or occurred during pregnancy may contribute to these complications.

#### Is labor induction always effective?

Sometimes labor induction does not work. A failed attempt at induction may mean that you will need to try another induction or have a cesarean delivery. The chance of having a cesarean delivery is greatly increased for first-time mothers who have labor induction, especially if the cervix is not ready for labor.

#### Glossary

Amniotic Sac: Fluid-filled sac in the mother's uterus in which the fetus develops.

Amniotomy: Artificial rupture of the amniotic sac.

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Cesarean Delivery: Delivery of a baby through incisions made in the mother's abdomen and uterus.

Fetus: The stage of prenatal development that starts 8 weeks after fertilization and lasts until the end of pregnancy.

**Laminaria:** Slender rods made of natural or synthetic material that expands when it absorbs water; they are inserted into the opening of the cervix to widen it.

**Oxytocin**: A hormone made in a part of the brain called the hypothalamus that causes the uterus to contract and milk to be released into the milk ducts of the breast during breastfeeding. A synthetic form of oxytocin can be given as a drug to induce labor contractions or make them stronger.

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

**Umbilical Cord:** A cord-like structure containing blood vessels that connects the fetus to the placenta.

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

# If you have further questions, contact your obstetrician-gynecologist.

**FAQ154:** Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information 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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