



THE AMERICAN CONGRESS OF OBSTETRICIANS AND GYNECOLOGISTS

*Women's Health Care Physicians*

## Preterm Labor and Birth

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## Preterm Labor and Birth



A normal pregnancy lasts about 40 weeks from the first day of the last menstrual period. When labor starts before 37 weeks of pregnancy, it is called preterm labor. About one half of all the preterm births in the United States are preceded by preterm labor.

This pamphlet explains

- recognizing preterm labor
- health risks of preterm birth
- risk factors and diagnosis
- management of preterm labor and preterm birth
- what to do if you are at risk of preterm birth

## Recognizing Preterm Labor

Preterm labor is defined as regular contractions of the *uterus* resulting in changes in the cervix that start before 37 weeks of pregnancy. These changes include effacement (the cervix thins out) and dilation (the cervix opens so that the *fetus* can enter the birth canal). When birth occurs between 20 weeks of pregnancy and 37 weeks of pregnancy, it is called preterm birth.

## Health Risks of Preterm Birth

Preterm birth is a concern because babies who are born too early may not be fully developed. They may be born with serious health problems. Some health problems, like *cerebral palsy*, can last a lifetime. Other problems, such as learning disabilities, appear later in childhood or even in adulthood. The risk of health problems is greatest for babies born before 34 weeks of pregnancy. But babies born between 34 weeks of pregnancy and 37 weeks of pregnancy also are at risk.

Knowing whether you have risk factors for preterm birth, recognizing the signs and symptoms of preterm labor, and getting early care if you have signs and symptoms are important. Preterm labor may stop on its own. If it does not, treatments can be given that may help delay birth and reduce the risk of complications for the baby.

## Risk Factors

Some women are at higher risk of preterm birth than others. Women who have had a previous preterm birth are at the greatest risk. Women with short cervical length also are at a higher risk. The shorter the length of the cervix, the greater the risk of preterm birth. Other factors that have been linked to preterm birth include past obstetric and gynecologic conditions, current pregnancy complications, and lifestyle factors (see box "[Risk Factors for Preterm Birth](#)").

### Risk Factors for Preterm Birth

Despite what is known about these risk factors, much remains to be learned about preterm labor and birth. Many women who have preterm birth have no known risk factors.

#### Obstetric and Gynecologic History

- Prior preterm birth
- Short cervical length as measured by *trans-vaginal ultrasound*
- History of certain types of surgery on the uterus or cervix
- Short interval between pregnancies

#### Pregnancy Complications

- Multiple pregnancy

- Vaginal bleeding during more than *trimester* of pregnancy

- Infections during pregnancy

#### Lifestyle Factors

- Low prepregnancy weight
- Smoking during pregnancy
- Substance abuse during pregnancy

#### Other Factors

- Age younger than 17 years or older than 35 years
- African American race
- Low socioeconomic status

## Diagnosis

Signs and symptoms of preterm labor are listed in the box "[Warning Signs of Preterm Labor.](#)" If you have any of these signs or symptoms, do not wait. Call your *obstetrician* or other health care professional's office or go to the hospital.

Even if you are having regular contractions, preterm labor can be diagnosed only when changes in the cervix are found. Your obstetrician or other health care professional may perform a *pelvic exam* to see if your cervix has started to change. You may need to be examined several times over a period of a few hours. Your contractions also may be monitored.

## Managing Preterm Labor

It is difficult for health care professionals to predict which women with preterm labor will go on to have preterm birth. Only about 10% of women with preterm labor will give birth within the next 7 days. For about 30% of women, preterm labor stops on its own.

### Warning Signs of Preterm Labor

Call your health care provider right away if you notice any of these signs or symptoms:

- Change in type (watery, mucus, or bloody) of vaginal discharge
- Increase in amount of discharge
- Pelvic or lower abdominal pressure
- Constant, low, dull backache
- Mild abdominal cramps, with or without diarrhea
- Regular or frequent contractions or uterine tightening, often painless
- Ruptured membranes (your water breaks with a gush or a trickle of fluid)

If you have symptoms of preterm labor, your obstetrician or other health care professional may order certain tests. A transvaginal ultrasound exam may be done to measure the length of the cervix. The level of a protein called *fetal fibronectin* in the vaginal discharge may be measured. The presence of this protein is linked to preterm birth. Results of these tests can help determine whether you need to be hospitalized or if you need immediate specialized care. Test results cannot predict whether or not you will go on to have a preterm birth. If your preterm labor continues, how it is managed is based on what is thought to be best for your health and your baby's health. When there is a chance that the baby would benefit from a delay in delivery, medications can be given to 1) help the baby's lungs and other organs mature (*corticosteroids*), 2) help reduce the risk of cerebral palsy (*magnesium sulfate*), and 3) help prolong pregnancy so that the first two drugs have time to work (*tocolytics*). When preterm labor is too far along to be stopped or there are reasons that the baby should be born early, it may be necessary to deliver the baby.

### *Corticosteroids*

Corticosteroids are drugs that cross the *placenta* and help speed up development of the baby's lungs, brain, and digestive organs. Corticosteroids are most likely to help your baby when they are given between 24

weeks and 34 weeks of pregnancy, but consideration can also be given to providing corticosteroids between 23 and 24 weeks of pregnancy. If you are likely to give birth within 1 week, a single course of corticosteroids is given. It takes 2 days after the first dose is given for the most benefits to occur, but some benefits occur within 24 hours. In addition, one type of corticosteroid may help reduce lung and breathing problems for your baby if you go into labor between 34 and 37 weeks of pregnancy.

### *Magnesium Sulfate*

Magnesium sulfate is a medication that may be given if you are fewer than 32 weeks pregnant, are in preterm labor, and are at risk of delivery within the next 24 hours. This medication may help reduce the risk of cerebral palsy that is associated with early preterm birth. It can cause minor side effects in the woman, including nausea, diarrhea, and weakness. Serious complications can occur, although they are rare.

### *Tocolytics*

Tocolytics are drugs used to delay delivery for a short time (up to 48 hours). They may allow time for corticosteroids or magnesium sulfate to be given or for you to be transferred to a hospital that offers specialized care for preterm infants. In addition to its role in protecting against cerebral palsy, magnesium sulfate also can be used as a tocolytic drug.

Tocolytic drugs can have side effects, some of which can be serious. The side effects differ with each type of drug. Tocolytics are given when the benefits of the treatment are thought to outweigh the risks. Women with preterm labor symptoms but no changes in the cervix do not benefit from tocolytic treatment. There also is no benefit from continuing to give tocolytics after labor has stopped.

## Managing Preterm Birth

If your labor does not stop and it looks like you will give birth to your baby early, you and the baby usually will be cared for by a team of health care professionals. The team may include a *neonatologist*, a doctor who specializes in treating problems in newborns. The care your baby needs depends on how early he or she is born. High-level neonatal intensive care units (NICUs) provide this specialized care for preterm infants. These units are specially equipped and have doctors and nurses with advanced training and experience in caring for preterm babies.

You may be moved to a hospital that offers this specialized care if you go into labor early. It is safer to give birth to a preterm baby at these hospitals than to transport the baby after birth. After the baby is born, he or she may continue to need intensive care. Some babies need to stay in the NICU for weeks and sometimes months.

## If You Are at Risk of Preterm Birth

If you have had a prior preterm birth and you are planning another pregnancy, a preconception care checkup can help you get in the best possible health before you become pregnant. When you become pregnant, be sure to start *prenatal care* early. You may be referred to a health care professional who has expertise in managing high-risk pregnancies. Your health care professional will review your pregnancy history as well as details about your current pregnancy. It is likely that you will see your health care professional frequently throughout your pregnancy to monitor your condition closely.

There are treatments that can be given to help prevent preterm birth if you have risk factors, such as a prior preterm birth or a short cervix. The following treatments may be recommended depending on your individual situation:

- Progesterone shots—If your prior preterm birth was a single baby and you are now pregnant with a single baby, you may be given *progesterone* shots beginning between 16 weeks of pregnancy and 24 weeks of pregnancy. This is a hormone that may help prevent another preterm delivery. These injections continue weekly until delivery or until 37 weeks of pregnancy.

- **Cerclage**—If you have a short cervix and have had a prior preterm birth, a procedure called cerclage also may be done. In cerclage, the cervix is closed with stitches. Cerclage is recommended for women with single pregnancies only. It may increase the risk of preterm birth if it is done in a multiple pregnancy.
- **Vaginal progesterone**—This treatment may be given if you have not had a prior preterm birth but you are found to have a very short cervix before or at 24 weeks of pregnancy. Vaginal progesterone is a gel that you place in your vagina daily until delivery or until 36 weeks of pregnancy. For women pregnant with a single baby, this treatment can reduce the risk of giving birth before 35 weeks of pregnancy by almost one half.

## Finally...

It is important to be able to recognize the signs and symptoms of preterm labor. If you have warning signs of preterm labor, call your obstetrician or other health care professional's office right away. If you have had a preterm baby previously, you are at risk of having another preterm birth. You should see your obstetrician or other health care professional before pregnancy and frequently during pregnancy to monitor your health and your baby's health. If you do go into preterm labor, steps may be taken to prolong your pregnancy. If your baby is born early, treatments and special NICU care can be given to help reduce the risk of long-term health problems.

## Glossary

**Cerclage:** A procedure in which the cervical opening is closed with stitches in order to prevent or delay preterm birth.

**Cerebral Palsy:** A long-term disability of the nervous system that affects young children in which control of movement or posture is abnormal and is not the result of a recognized disease.

**Cervix:** The lower, narrow end of the uterus at the top of the vagina. 0

**Corticosteroids:** Hormones given to help fetal lungs mature, for arthritis, or for other medical conditions.

**Fetal Fibronectin:** A protein that helps the amniotic sac stay connected to the inside of the uterus.

**Fetus:** The developing organism in the uterus from the ninth week of pregnancy until the end of pregnancy.

**Magnesium Sulfate:** A drug that may help prevent cerebral palsy when it is given to women in preterm labor who are at risk of delivery before 32 weeks of pregnancy.

**Neonatologist:** A doctor who specializes in the diagnosis and treatment of disorders that affect newborn infants.

**Obstetrician:** A physician who specializes in caring for women during pregnancy, labor, and the postpartum period.

**Pelvic Exam:** A physical examination of a woman's reproductive organs.

**Placenta:** Tissue that provides nourishment to and takes waste away from the fetus.

**Prenatal Care:** A program of care for a pregnant woman before the birth of her baby.

**Progesterone:** A female hormone that is produced in the ovaries and that prepares the lining of the uterus for pregnancy.

**Tocolytics:** Drugs used to slow contractions of the uterus.

**Transvaginal Ultrasound:** A type of ultrasound in which a device specially designed to be placed in the vagina is used.

**Trimester:** Any of the three 3-month periods into which pregnancy is divided.

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

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