



PRETERM LABOR

Preterm labor is one of the most serious obstetrical problems. One of the reasons is the significantly increased risk of problems, including respiratory and neurological problems, seen in the premature infant. Additionally, there is a significantly increased risk of death.

Approximately 1 in 10 births results in preterm labor with preterm delivery of a small infant. Premature birth is the leading cause of infant death in the United States. Compared to other westernized countries, the United States has consistently ranked low. In addition, African Americans are even more highly afflicted by preterm delivery and preterm fetal death.

Because of the serious effect preterm labor and preterm delivery has on infant survival, as well as the significant costs to the country in caring for premature infants, many new studies have been performed in an attempt to decrease the rate of preterm delivery and its consequences. Several state and federal programs have been implemented in an attempt increase awareness and to provide women with adequate prenatal care.

With increased technological advances, we have consistently seen infants surviving at earlier and earlier gestational ages. The period between 23 and 25 weeks with fetal weights of 500 to 750 grams has been shown to be the most challenging area for obstetricians at this point. This is the period where a fetus is at greatest risk.

Q. WHAT IS PRETERM LABOR?

A. Preterm labor has been defined as the delivery of an infant prior to the end of the 37th week of gestation. Also associated with preterm labor and preterm delivery are low birth weight infants. Low birth weight is defined as weight less than 2500 grams. Preterm labor causes your uterus to start contracting and your cervix to start thinning in preparation for delivery. If preterm labor is not stopped, you may ultimately continue into the active phase of labor with subsequent delivery of your infant.

There are several suspected causes of preterm labor. Predisposing factors include low socioeconomic status, young age or old age at the time of pregnancy, low pregnancy weight, and nonwhite race. Additionally, multiple gestations such as twins and triplets have been associated with a significantly increased risk of preterm delivery. For example, the average gestational age at delivery for a twin pregnancy is approximately 37 weeks (as opposed to 40 weeks for a full-term pregnancy). Average age at delivery for a triplet pregnancy is 34 to 35 weeks. Prior preterm deliveries make a woman significantly more susceptible to another preterm delivery. Some studies have reported a recurrence rate of up to 20 to 30%.

Certain high-risk behaviors are also associated with preterm delivery. These include cigarette smoking, cocaine use, and lack of prenatal care. Job stress and long working hours have been associated with preterm delivery.

Malformations of the uterus such as a unicornuate or bicornuate uterus may cause preterm labor or preterm delivery. These conditions cause abnormal shape and therefore decreased volume to the uterine cavity, making pregnancy problems more likely. Uterine fibroids (benign growths of the uterus) have been associated with preterm delivery. A condition called cervical incompetence (where the cervix is unable to remain closed throughout the entire pregnancy) has also been associated with preterm labor and delivery.

Genital infections have been associated with preterm labor as well. These include gonorrhea, chlamydia, and group B strep. If you show evidence of going into preterm labor, your physician will likely test you for these infections. Recent studies have been performed on the association of bacterial vaginosis (also known as Gardnerella) and preterm labor.

Q. WHAT ARE THE SIGNS/SYMPTOMS OF PRETERM LABOR?

A. Many women, especially women who are having their first pregnancy, are unsure what to look for as signs/symptoms of preterm labor. The following are possible signs of preterm labor. If you notice any of these you should notify your physician immediately. (1) If your vaginal discharge significantly changes, for example, it becomes watery or bloody or significantly increases in amount. (2) If you notice constant lower pelvic pressure. A low or constant, dull backache, although sometimes common in pregnancy, may signify preterm labor. (3) If you experience any persistent abdominal cramping or regular uterine contractions (greater than 6 times an hour). (4) If your water breaks. Again, consult your physician if you have concerns regarding preterm labor.

Q. HOW IS PRETERM LABOR DIAGNOSED?

A. Preterm labor may be difficult to diagnose. Differentiating true preterm labor from other common complaints in pregnancy is difficult. The requirements that your physician will use to diagnose preterm labor include regular contractions. You may or may not perceive these. Your physician, however, will be able to document them through monitoring. Additionally, if your cervix changes (dilates or thins) progressively over a short period of time, your cervix dilates to 2 centimeters or more, or your cervix effaces (thins) by 80% or more, your physician may classify you as having preterm labor. This diagnosis will be made either in your physician's office or in the hospital.

Q. HOW IS PRETERM LABOR TREATED?

A. When you present to your physician with concerns of preterm labor, he or she will first monitor you closely for evidence of true preterm labor. The physician may give you intravenous hydration in an attempt to correct dehydration, which is sometimes associated with premature contractions. He or she may check urine samples to see if you have a urinary tract infection (UTI). Often pregnant women have UTIs and don't realize it. These, as well, can cause premature contractions. If

you continue to have contractions and meet the diagnosis of preterm labor, your physician may prescribe medications in an attempt to stop your labor. These include beta agonist medications such as terbutaline, magnesium, prostaglandin inhibitors, or calcium channel blockers. For details on each of these medicines, ask your physician. Additionally, your physician may suggest corticosteroid (steroid) administration. Studies have shown that steroids reduce the incidence of respiratory problems in premature infants.

Q. HOW CAN PRETERM LABOR BE PREVENTED?

A. The consequences of preterm labor can be significant. Preterm babies may have multiple problems if they survive. These include visual, hearing, and respiratory (breathing) problems, as well as possible neurological (mental) problems. Behavioral problems are also significantly more common in these infants. Because the treatments for preterm labor are often not extremely effective, the best course of action is an attempt to prevent preterm labor in the first place. You may be asked to change your lifestyle, such as limiting strenuous activities or heavy lifting. You may be asked to remain at partial bed rest for a certain part of your pregnancy. Limiting risky behaviors such as smoking or cocaine use is advisable. Some physicians may suggest home uterine activity monitoring, which involves placing a device that monitors contractions. The results are often wired to your physician or a private company. The benefit of this type of monitoring is controversial. Your physician may have you take some medications prior to preterm labor in an attempt to prevent preterm labor. Again, this type of management is controversial. Finally, your physician may ask you to come in to the office for frequent cervical exams, or may schedule frequent ultrasounds to measure the length of your cervix. Again, these forms of monitoring are controversial.

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