BMJ Best Practice

Patient information from BMJ

Last published: Jun 05, 2024

Premature labor

Pregnant women sometimes go into labor much earlier than expected, which can be dangerous for their baby. If your labor starts early there are steps your doctor can take to increase your baby's chances of a healthy start.

You can use our information to talk to your doctor if you want to know more about premature labor. If you go into labor early your doctor should discuss your options with you as clearly as possible.

What is premature labor?

Premature labor is when a woman goes into labor early. Pregnancy normally lasts between 37 and 42 weeks. If you go into labor before the 37th week, this is called premature labor. You may also hear it called **preterm labor**. When a baby is born before the 37th week this is called a premature (or preterm) birth.

Sometimes doctors start labor early on purpose because the woman's health, or her baby's health, is at risk. This is called **planned**premature labor.

Here, though, we talk about premature labor that isn't planned. This is called **spontaneous**premature labor.

What causes premature labor?

Spontaneous premature labor is sometimes linked to a specific cause, such as a woman's waters breaking early (this happens when the sac of fluid around a baby, called the amniotic sac, ruptures early).

Often doctors don't know why a woman goes into premature labor. However, we do know that certain things can increase a woman's chance of premature labor. These are called **risk factors**. They include:

- having had a preterm labor before
- having had an emergency cesarean section (also called a C-section) before
- being pregnant with more than one baby

- smoking while pregnant
- having an infection
- having had surgery on your cervix (the cervix is the opening to the womb)
- having a cervix that is short (this increases the chance that it will open early, leading to premature labor)
- having had an abortion before.

If you have one of these risk factors this doesn't mean you will definitely have a premature labor. It just means you have a greater chance than a woman without that risk factor of having premature labor.

It's also worth noting that women sometimes go into premature labor without having any risk factors.

What are the symptoms of premature labour?

Signs that you may be going into labor include:

- bleeding from your vagina
- cramping pains (contractions)
- a new pain in your lower back
- your waters breaking.

If you go into labor early, you should go to the hospital as soon as possible.

If your doctor thinks you may go into labor early they will examine you and possibly do some tests.

One is called a **fetal fibronectin test**. It involves having a swab of fluid taken from your vagina and tested for a certain protein. This can show whether you are likely to go into labor soon.

Other tests that you might need include:

- an **ultrasound scan** of your cervix to see if there are changes that suggest you are going into labor
- tests to check for possible infection
- tests to check on your baby's heartbeat.

If you are having contractions your doctor will also monitor how frequent they are.

What treatments work?

Treatment for premature labor focuses on making sure your baby is as healthy as possible before they're born. This might include trying to prevent or delay premature labour. Your doctor might also recommend medications before or during labor that will give your baby the best chance of a healthy start.

Everyone's pregnancy and labor is different, and your doctor will make the best treatment decisions depending on your situation and your wishes.

Treatments to prevent premature labor

Doctors usually can't predict whether a woman will have a premature labor, or stop it happening. But they might offer treatments to help prevent an early labor in women who have risk factors.

If you have a short cervix, your doctor might recommend having a **stitch put in your cervix**. You might hear your doctor call this **cervical cerclage**. This might help stop the cervix opening too early.

Your doctor might also prescribe a hormone capsule called **vaginal progesterone** that is placed into the vagina.

Having an infection caused by an overgrowth of bacteria in your vagina (called bacterial vaginosis) can increase your chances of giving birth early. **Antibiotics** can help kill the bacteria. However, it's not clear if having treatment with antibiotics makes much difference in your chances of a premature labor.

Treatments to delay delivery

Once you go into labor, it's a process that can't really be stopped. If you go into labor before 34 weeks your doctor might offer you medications to try to delay your delivery for a few days.

The medications are called **tocolytic agents**. They can delay delivery by dampening down your contractions.

This allows more time for your baby to grow and develop in the womb. It also allows you to move to a special hospital unit that cares for premature babies and their mothers.

Treatments to help protect your baby

Depending on your situation, your doctor might recommend medications to help protect your baby. These medications might help to:

- speed up your baby's development
- protect your baby's brain and nervous system
- prevent your baby getting an infection.

If your labor starts prematurely, or if your doctor thinks you'll go into premature labour soon, your doctor will probably recommend medications called **corticosteroids** (often just called steroids).

Corticosteroid injections speed up your baby's development, improving your baby's chances of a healthy start. They work best if you have them at least 24 hours before your baby is born. Corticosteroid injections seem to cause few, if any, side effects when used in this way.

If your labor starts between 24 and 29 weeks, your doctor will recommend medication called **magnesium sulphate**. You will receive this through a drip.

Magnesium sulphate is a type of salt that can help protect your baby's brain and nervous system. You might also be offered magnesium sulphate outside of the 24-29 week window, depending on your situation.

If your waters break before 37 weeks and you don't go into labor soon after, your baby may be at risk of getting an infection. This is because you no longer have the sac of fluid around your baby that helps protect your baby against germs that could enter your womb. You will be given **antibiotics** to help prevent infection if this happens to you.

What will happen to my baby?

How early your baby is born has a big impact on their health.

It's possible for babies to survive if they're born as early as 22 weeks. But the chances of survival tend to be low and there are some serious health problems that can affect babies born this early.

Babies born before 32 weeks might be very small and not properly developed. They might need special care, usually in an incubator. Some need a life-support machine to help them breathe.

Babies born at between 32 and 37 weeks are usually small and might need to stay in the hospital a little longer than babies born at full term. They usually do as well in the long run as babies born on or near their due date.

You and your baby will be cared for in a special hospital unit, and medical care for premature babies is better than it has ever been.

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