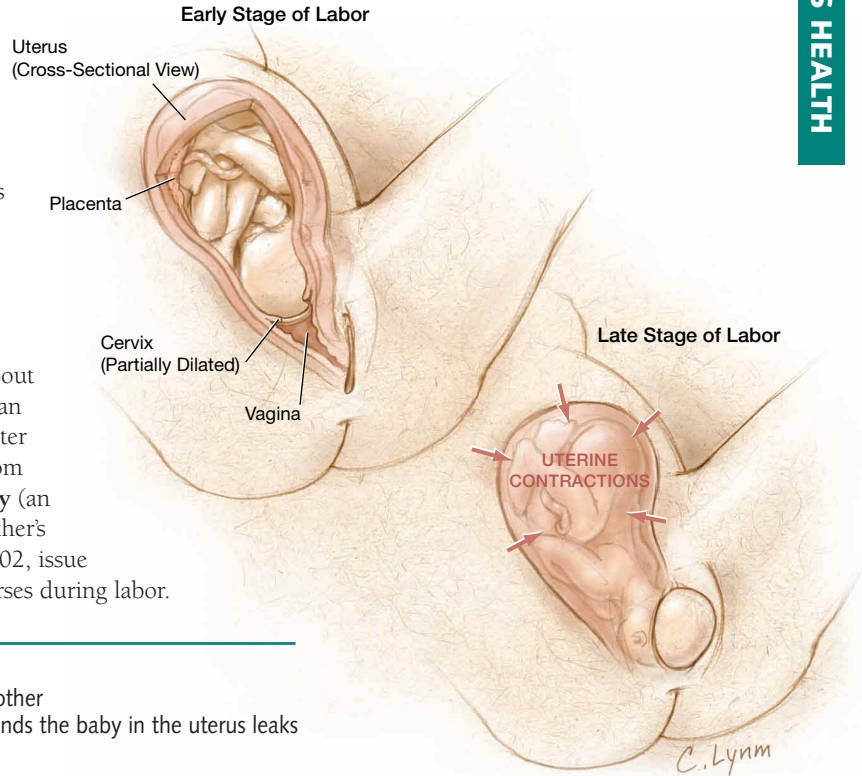


Birth Labor

Birth labor is the way a woman's body prepares to deliver a baby. The woman's **uterus** (womb) is where the baby grows during pregnancy. At the beginning of labor, the uterus begins to contract, or squeeze, moving the baby down the **vagina** (birth canal) as labor progresses. The **cervix**, the opening of the uterus into the vagina, **dilates** (enlarges its opening) to a final diameter of about 10 centimeters (about 5 inches) so the baby can pass through and be delivered through the outer opening of the vagina. Babies are delivered from the mother's vagina unless a **cesarean delivery** (an operation to deliver the baby through the mother's abdomen) is necessary. The September 18, 2002, issue of *JAMA* includes an article on support by nurses during labor.



BEGINNINGS OF LABOR

- Uterine contractions start and are felt by the mother
- "Water breaks"—the **amniotic fluid** that surrounds the baby in the uterus leaks out through the mother's vagina
- Back pain
- Slight bleeding from the mother's vagina

PAIN RELIEF DURING LABOR

Labor is different for each woman and may even be different for separate pregnancies in the same woman. Labor can cause severe pain, and many women wish to have some method of pain relief during their labor. Relaxation techniques, such as prayer, meditation, visualization, rhythmic breathing, and emotional support, can be helpful, especially in the beginning stages of labor. As the contractions become stronger and more painful, medications can be administered through an **intravenous (IV) catheter** or through an injection into the mother's muscle. Medications given by those routes can cross into the baby's bloodstream, which may cause the baby's heart rate to decrease. If the baby is born soon after an injection, the baby may breathe too slowly and may need medicine to treat the breathing problem.

Epidural pain relief is given by an anesthesiologist. The medicine is given as an injection into the epidural space near the spinal cord. Only a small amount of medicine is given and there is no transfer of local anesthetic medicine to the baby. There may be medical reasons why an epidural injection is not used. Epidural injections give good pain relief and allow the mother to keep her leg strength to push and deliver the baby when it is time. The epidural route may also be used to give stronger anesthetic medicine if a cesarean delivery becomes necessary.

All the ways to relieve pain during labor have risks and benefits. Each woman should discuss her pain relief options with her doctor before labor begins because every woman's pain relief needs are different.

FOR MORE INFORMATION

- American College of Obstetricians and Gynecologists
www.acog.org
- American Society of Anesthesiologists
847/825-1692
www.asahq.org
- Medem: Healthcare Information
www.medem.com

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page Index on JAMA's Web site at www.jama.com. They are available in English and Spanish. A Patient Page on cesarean delivery was published in the May 22/29, 2002, issue.

Sources: American College of Obstetricians and Gynecologists, American Society of Anesthesiologists

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