



Medications for Pain Relief During Labor and Delivery

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What types of medications for pain relief are used during labor and delivery?

In general, there are two types of drugs for pain relief: 1) **analgesics** and 2) **anesthetics**. Analgesics lessen pain without loss of feeling or muscle movement. Anesthetics relieve pain by blocking most feeling, including pain. Pain relief medications can be either systemic, regional, or local. Systemic medications affect the entire body. Local medications affect only a small area of the body. Regional medications affect a region of the body, like the region below the waist.

What are systemic analgesics?

Systemic analgesics reduce your awareness of pain and have a calming effect. The medications used are known as **opioids**. These drugs will not cause you to lose consciousness. Systemic analgesics usually are given as a shot or through an intravenous (IV) line. This is a small tube that is placed into a vein through which medications or fluids are given.

What are the side effects and risks of systemic analgesics?

Side effects are minor and include itching, nausea, vomiting, feeling drowsy, or having trouble concentrating. Opioids can affect your baby's breathing and heart rate for a short time. Your baby may be drowsy, which can make it harder for your baby to breastfeed in the first few hours after birth. You may not be able to get systemic analgesics within the hour before delivery.

What is nitrous oxide?

Nitrous oxide is a tasteless and odorless gas used as a labor analgesic by some hospitals. It reduces anxiety and increases a feeling of well-being so that pain is easier to deal with. Nitrous oxide is mixed with oxygen and inhaled through a mask.

A woman holds the mask herself and decides when she will inhale. It works best when a woman begins inhaling 30 seconds before the start of a contraction.

What are the side effects and risks of nitrous oxide?

Nitrous oxide is safe for the mother and the baby. Some women feel dizzy or nauseated while inhaling nitrous oxide, but these sensations go away within a few minutes.

What is local anesthesia?

Local anesthesia is the use of drugs to prevent pain in a small area of the body. The anesthetic drug is injected into the area around the nerves that carry feeling to the **vagina**, **vulva**, and **perineum**. Local anesthetics provide relief from pain in these areas. The drug also is used when an **episiotomy** needs to be done or when tissues need to be repaired after childbirth. When used to relieve pain during childbirth, the drug is given just before delivery.

What are the side effects and risks of local anesthesia?

Rarely, a woman may have an allergic reaction to a local anesthetic or may have nerve or heart problems if the dose given is too high. Local anesthesia rarely affects the baby.

What are regional analgesia and regional anesthesia?

Regional analgesia and **regional anesthesia** are used to lessen or block pain below the waist. They include the **epidural block**, **spinal block**, and **combined spinal–epidural (CSE) block**. The medication includes an anesthetic that may be mixed with an opioid analgesic. The medication may be given as a single shot or through a thin tube placed in the lower back.

What is an epidural block?

An epidural block (sometimes referred to as “an epidural”) is the most common type of pain relief used for childbirth in the United States. In an epidural block, medication is given through a tube placed in the lower back. For labor and vaginal delivery, a combination of analgesics and anesthetics may be used. You will have some loss of feeling in the lower areas of your body, but you remain awake and alert. You should be able to bear down and push your baby through the birth canal. For a **cesarean delivery**, the dose of anesthetic may be increased. This causes loss of sensation in the lower half of your body. An epidural also can be used for **postpartum sterilization**.

Will I be able to move or feel anything after receiving an epidural?

You can move with an epidural, but you may not be able to walk. Although an epidural block will make you more comfortable, you still may be aware of your contractions. You also may feel vaginal exams as labor progresses.

What are the side effects of an epidural?

When opioids are used, itching is common. This itching can be treated with another medication. Other less common side effects related to opioids include nausea, vomiting, and breathing problems.

What are the risks of an epidural?

As with systemic analgesia, use of opioids in an epidural block increases the risk that your baby will experience a change in heart rate, breathing problems, drowsiness, reduced muscle tone, and reduced breastfeeding. These effects are short term.

Less common side effects include the following:

- Decrease in your blood pressure
- Fever
- Headache
- Soreness

Serious complications with epidurals are very rare and include the following:

- Injury to your spinal cord or nerves
- Breathing problems if the anesthetic affects your breathing muscles
- Numbness, tingling, or rapid heartbeat if the anesthetic is injected into a vein instead of a nerve

What is a spinal block?

A spinal block—like an epidural block—is a form of regional anesthesia. Medication is given as a single shot into the fluid around the spinal cord. It starts to relieve pain quickly, but it lasts for only an hour or two. A spinal block is commonly used for cesarean delivery. It has the same side effects and risks as an epidural block.

What is a combined spinal–epidural block?

A CSE block is another form of regional anesthesia. It has the benefits of a spinal block and an epidural block. The spinal part acts quickly to relieve pain. The epidural part provides continuous pain relief. Lower doses of medication can be used with a CSE block than with an epidural block for the same level of pain relief. It has the same side effects and risks as an epidural block.

What is general anesthesia?

With **general anesthesia**, you are not awake and you do not feel pain. It can be started quickly and usually is used only for emergency situations during childbirth. It is given through an IV line or through a mask. After you are asleep, your anesthesiologist will place a breathing tube into your mouth and windpipe.

What are the risks of general anesthesia?

A rare but major risk is aspiration of food or liquids from a woman's stomach into the lungs. If you have undigested food in your stomach, it can come back into the mouth and be inhaled while you are unconscious. This can cause a lung infection (pneumonia) that can be serious. General anesthesia usually requires the placement of a breathing tube into the lungs to help you breathe while you are unconscious. Difficulty placing this tube is another risk. General anesthesia can cause the newborn baby's breathing rate to decrease. It also can make the baby less alert. In rare cases, the baby may need help breathing after birth.

Glossary

Analgesics: Drugs that relieve pain without loss of muscle function.

Anesthetics: Drugs that relieve pain by loss of sensation.

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

Combined Spinal–Epidural (CSE) Block: A form of regional anesthesia or analgesia in which pain medications are administered into the spinal fluid (spinal block) as well as through a thin tube into the epidural space (epidural block).

Epidural Block: A type of regional anesthesia or analgesia in which pain medications are given through a tube placed in the space at the base of the spine.

Episiotomy: A surgical incision made into the perineum (the region between the vagina and the anus) to widen the vaginal opening for delivery.

General Anesthesia: The use of drugs that produce a sleep-like state to prevent pain during surgery.

Local Anesthesia: The use of drugs that prevent pain in a part of the body.

Nitrous Oxide: A gas with no odor that is commonly known as “laughing gas.” When people inhale this gas, they feel relaxed and calm.

Opioids: Medications that blunt how you perceive pain and your emotional response to it.

Perineum: The area between the vagina and the anus.

Postpartum Sterilization: A permanent procedure that prevents a woman from becoming pregnant, performed soon after the birth of a child.

Regional Analgesia: The use of drugs to relieve pain in a region of the body.

Regional Anesthesia: The use of drugs to block sensation in a region of the body.

Spinal Block: A type of regional anesthesia or analgesia in which pain medications are administered into the spinal fluid.

Systemic Analgesics: Drugs that provide pain relief over the entire body without causing loss of consciousness.

Vagina: A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

Vulva: The external female genital area.

If you have further questions, contact your obstetrician–gynecologist.

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