Pain Management During Vaginal Childbirth

Labor and vaginal delivery is painful for most people.

**Approaches to Pain Management During Vaginal Childbirth**

In general, as labor progresses, pain increases. The level of pain depends on factors including size and position of the fetus, rate of labor progression, and maternal pain tolerance.

There are both pharmacologic (involving medications) and nonpharmacologic (not involving medications) options to treat pain during vaginal childbirth. The decision to use pain medications is largely a personal one. Some individuals wish to avoid medications completely; others want to wait to see how labor progresses and ask for pain relief as needed; and others want complete pain relief as early as possible during labor. For women without major medical problems, these options are all reasonable.

**Nonpharmacologic Pain Management**

The goal of nonpharmacologic pain management is not to make pain disappear, but rather to ease pain, improve the ability to cope with the pain, and improve the overall experience of childbirth. These strategies can be helpful when there is a personal preference to avoid medications or in low-resource settings. Practicing or getting coaching prior to labor can be helpful. Although the effectiveness of these strategies is not proven by research, they are considered safe to try.

Strategies include breathing/relaxation techniques, movement/yoga, using a birthing ball, applying heat or cold, warm shower or water immersion, touch and massage, acupressure or acupuncture, music therapy, and aromatherapy.

**Pharmacologic Pain Management**

Pharmacologic pain management can completely block the feeling of pain, and is divided into 2 categories: regional/local (part of the body) and systemic (whole body).

Regional/local analgesia includes neuraxial analgesia and pudendal nerve block. Neuraxial analgesia (an "epidural") is generally the method of choice for pharmacologic pain control. It involves infusing an anesthetic drug (mainly a local anesthetic such as bupivacaine, with a small amount of opioid added) through a small tube (catheter) directly into the lower back, into the epidural space where the nerves coming out of the spinal cord are located. There is some discomfort during placement of the needle and catheter insertion. Pain relief is very rapid once medications are infused, and patients can stay fully awake and alert during childbirth. Most are able to push effectively with an epidural. Epidurals are generally very safe, but some people experience itching, and it is usually recommended that patients do not try to walk, although most can still move around in bed. Less common side effects such as nausea, vomiting, and low blood pressure may require treatment. Rarely, serious neurologic side effects can occur.

Pharmacologic strategies are used to ease pain without medication.
- Breathing/relaxation techniques
- Warm shower or water immersion
- Acupressure or acupuncture
- Movement/yoga
- Birthball use
- Heat or cold application
- Touch and massage
- Music therapy
- Aromatherapy

Systemic analgesia involves the whole body.
- Intravenous opioids
- Inhaled nitrous oxide
- Pudendal nerve block

**Pudendal nerve block** is an injection of local anesthetic (such as lidocaine) through the vaginal canal to provide pain relief to the vaginal and perineal areas. Pudendal nerve block can sometimes be helpful in cases in which an epidural does not provide sufficient pain relief.

Systemic analgesia includes opioids and inhaled nitrous oxide. Opioids, usually administered intravenously (into the bloodstream), can reduce awareness of pain and have a calming effect. However, the degree of pain relief with systemic opioids is usually less reliable than with an epidural. In addition, there can be side effects such as nausea and vomiting or trouble concentrating on pushing. Also, opioids cross the placenta and may have temporary side effects on the fetus or newborn such as changes in fetal heart rate or newborn respiratory depression or drowsiness.

Inhaled nitrous oxide involves self-administration of nitrous oxide gas through a handheld face mask. The nitrous oxide takes effect and wears off quickly, which, if appropriately timed with contractions, can provide safe and somewhat effective temporary pain relief. However, this approach is not as effective as an epidural.

**FOR MORE INFORMATION**

American College of Obstetricians and Gynecologists
www.acog.org/womens-health/faqs/medications-for-pain-relief-during-labor-and-delivery