



Using Nitrous Oxide to Manage Pain During Labor and Delivery

At Ochsner, we want patients of our obstetric, midwifery, and anesthesia departments to make an informed decision when selecting the best form of labor pain management for their particular situation.

One option for pain relief during labor is nitrous oxide. As with many medical interventions, it does have some risks, but overall it is considered safe to use during labor. Ochsner offers self-administered inhaled nitrous oxide for the pain that is felt during labor. This method has been used extensively as a primary form of pain relief for labor and birth, procedures that occur immediately after birth, as well as for other non-hospital surgical procedures such as dental care, foot care, and minor pediatric procedures.

Nitrous oxide may be an alternative to narcotic medications. While nitrous oxide may not be effective for every woman, it is considered a fairly safe way to treat pain during labor.

How It Works

You hold your own mask and begin to inhale the gas mixture about 30 seconds before a contraction begins. Starting to inhale before a contraction begins helps the gas to reach its peak effect at about the same time as the contraction reaches its peak, providing the greatest relief.



Safety Measures

While there are some risks of using nitrous oxide during labor, these are limited through safety standards. For your safety, you must tell your provider:

- if you are not able to hold a mask to your face
- if you have had recent use of illicit or narcotic drugs or alcohol
- if you have received opioids within the last 2 hours
- if you have a known B12 (cobalamine) deficiency including celiac disease, Crohn's disease, pernicious anemia, chronic malnutrition, and long term use of nitrous oxide
- if you have had an ear surgery within the last 6 months
- if you have impaired oxygenation
- if you have hemodynamic instability
- if you are aware of any abnormal fetal heart rate issues
- if you have a history of pneumothorax, bowel obstruction, increased intra-cranial pressure, or had intraocular surgery

Side Effects and Limitations

Although there are many benefits of using nitrous oxide during labor, risks are possible. You should be aware of the side effects you may experience. These include:

- nausea
- lightheadedness
- dizziness
- fatigue
- loss of consciousness

There are limitations to the use of nitrous oxide. You must be able to self-administer by holding a mask to your face. You must be in a bed or chair and it cannot be used in a labor tub. There are no known effects on your baby. Nitrous oxide is the only pain relief method used for labor that is cleared from the body through the lungs. The effects of nitrous are gone within a few minutes after you stop using it.

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