

# Valley's Birth Center Offers Nitrous Oxide as a Pain Control Option During Labor

Birth Center  
Neonatal ICU  
Pediatrics

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## What is nitrous oxide?

Nitrous oxide is a colorless, odorless, tasteless gas, used to decrease pain sensations. The Nitronox™ system is a blended mixture of 50% nitrous oxide and 50% oxygen inhaled through a mask. Nitrous oxide has been used in operating rooms, dental offices, and labor and delivery suites for decades.

## How does it work?

You will inhale nitrous oxide through the provided mask. You must hold your own mask. This allows you to decide when to use it and how much you need. By starting to inhale the nitrous oxide 30 – 45 seconds BEFORE your contraction, the gas will reach peak effect at about the same time your contraction reaches its peak, giving

you the greatest relief. It is important that you exhale directly into the mask to protect other people in the room from being exposed to the gas.

## How much will nitrous oxide help with labor pain?

How well nitrous oxide works depends on the individual. For some women, it reduces their anxiety and “takes the edge off” the pain enough to allow them to cope with labor better. Some women report even greater pain relief. Women who do not like the way nitrous oxide makes them feel or do not find it helpful enough can try other pain relief options. Other pain relief options are still available after using nitrous oxide.

*(continued on reverse)*





## Does nitrous oxide affect my labor progress?

No. Nitrous oxide does not have any effect on your uterus or contractions and will not affect your labor progression.

## How will I feel? What are the side effects?

You might feel drowsy, lightheaded, or a little silly while you are using nitrous oxide. Some women have nausea after prolonged use. There are additional medications that can help alleviate nausea, if needed.

It is possible to faint (pass out or lose consciousness) temporarily if you inhale too much gas. This is why you are the **ONLY** person holding the mask. When your body has received enough gas, your hand will naturally fall away from your face and you will no longer be inhaling the gas. This prevents you from fainting. Occasionally, some women experience restlessness or confusion. Most side effects go away quickly once you stop inhaling the gas.

## Does nitrous oxide affect my baby?

There are no known immediate effects on the baby. Studies have not shown negative effects on APGAR scores or or newborn behavior. However, there are no definitive long-term studies that demonstrate safety for babies. Nitrous oxide **DOES** cross the placenta to baby. Laboring women clear nitrous oxide from their body through their lungs in about 5 minutes. Nitrous oxide that passes through the placenta to the baby is also cleared by the mother's lungs.

## Can I be walking or in the tub while using nitrous oxide?

No. There is increased risk to being up and about or using the labor tub while inhaling nitrous oxide. For this reason, you must stay in your bed or a chair while using nitrous oxide. Staff members can assist you if you would like to move from your bed to a chair or vice versa.

## If I use nitrous oxide can I still get an epidural?

Yes. Women may choose to use nitrous oxide prior to having an epidural placed, or before choosing another method of pain relief. Nitrous oxide and epidurals cannot be used together at the same time.

## Are there any reasons I could not use nitrous oxide?

Yes. You cannot use nitrous oxide if you:

- Cannot hold your own mask
- Have received a dose of narcotics within the past 2 hours
- Have pernicious anemia (B-12 deficiency) requiring supplements
- Have one of a very few other rare medical conditions that your provider will assess for when taking your medical history

## What are my responsibilities?

I must be the only person holding the mask to my face to administer nitrous oxide. No one else can hold the mask to my face. The risks of someone else holding the mask to my face include giving me nitrous oxide when I am not in pain, which can result in over-sedation, airway obstruction and decreased oxygen to myself and my baby.

I understand that nitrous oxide is for my use and my pain control only. I must exhale directly into the mask to reduce the risk of exposure to staff and my visitors. I understand that if I allow anyone else to use the mask or inhale the nitrous oxide, that person will be asked to leave and/or the use of my nitrous oxide will be terminated.

I understand that nitrous oxide is a controlled substance and that providing a controlled substance to anyone without a prescription may subject me to state and/or federal, civil, and/or criminal penalties.

## Any other questions?

Be sure to ask your provider if you have any additional questions or concerns.

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**The Birth Center - Neonatal ICU - Pediatrics**

**400 South 43rd Street, Renton, WA 98055**

**[valleymed.org/birth](http://valleymed.org/birth)**