

# Nitrous Oxide in Labor



## Did you know?

- 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 that is inhaled through a mask.
- Nitrous oxide has been used in operating rooms, dental offices, and labor and delivery suites for many decades.
- Despite widespread use in the United Kingdom, Australia and Europe, usage during labor has not been available in the United States until very recently.

## Using nitrous oxide during labor

You will inhale nitrous oxide through the mask provided. You must hold your own mask, which allows you to decide when to use it and how much you need. By starting to inhale the gas mixture 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 hospital staff and your support person(s) or visitors from being exposed to the gas.

### How much does it help with labor pain?

How well nitrous oxide works depends on the individual. For some women it “takes the edge off” the peak of the contraction pain enough to allow them to cope with labor better. Some report greater pain relief. Nitrous oxide reduces anxiety, which also helps women cope with labor pain better. Some women do not like the way nitrous oxide makes them feel and/or do not find it helpful enough—these women can choose to try other options. Other pain relief options are still available after using nitrous oxide.

### Will it affect my labor progression?

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

### How will it make me feel and what are the side effects?

You might feel drowsy, lightheaded or a little silly while you are using nitrous oxide. Some women have reported nausea after prolonged use. (There are additional medications that can be given to help alleviate nausea, if necessary.) It is possible to faint (pass out or lose consciousness) temporarily if you inhale too much gas—this is why it is important that 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, which prevents you from fainting. Occasionally, some women experience restlessness or confusion. Most side effects go away quickly once you stop inhaling the gas.

## Remember:

- Nitrous oxide is provided for your use and your pain control only.
- For your safety, you alone must hold the mask to your face.
- If you allow anyone else to use the mask or inhale the nitrous oxide, that person will be asked to leave and/or your use of nitrous oxide will be terminated.

## Does nitrous oxide affect my baby?

There are no known immediate effects on the baby. Studies have not shown adverse effects on Apgar scores, newborn blood gas levels or on newborn behavior, and nitrous oxide has been used for many decades in laboring women. Nitrous oxide does cross the placenta to baby. Laboring women clear nitrous oxide from their body through their lungs in about five minutes. Nitrous oxide that passes through the placenta to the baby is also cleared by the mother's lungs.

## Can I be out of bed or in the tub while using nitrous oxide?

Yes, with assistance from staff you may get out of bed. Due to possible side effects that may increase your chance of falls, we ask that you have someone with you for safety when you are out of bed or in the tub.

## 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. However, they will not 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 have any of the following:

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

## What are my responsibilities?

You must be the only person holding the mask to your face to administer nitrous oxide. No one else can hold the mask to your face. This allows for the administration of nitrous oxide only when you require it for pain relief. The risks of someone else holding the mask to your face include over-sedation, airway obstruction and decreased oxygen to you and your baby.