

# Nitrous Oxide for Pain Relief in Labor



## What is nitrous oxide and how is it used for labor?

Nitrous oxide is known by most people as “laughing gas.” Many dentists use it to help with pain during dental care. For labor pain, half nitrous oxide gas is mixed with half oxygen and breathed through a mask or a mouthpiece. Many women in Europe and other countries, such as Canada and Australia, use it to help cope with pain in labor. It is so common that in some countries as many as 8 in 10 women use nitrous oxide to help with labor pain. Women in these countries have been using this method of pain relief in labor safely for many years. Nitrous oxide hasn't been used as often in the United States, but that is changing.

## How does nitrous oxide work to relieve pain during labor?

The nitrous oxide is mixed in special equipment, and you breathe it through a mask or mouthpiece. You hold your own mask, so you decide when to use it and how much you need. You start to breathe in the gas mixture about 30 seconds before a contraction begins. Starting to breathe the gas before a contraction begins helps the gas to work best about the same time the contraction reaches its peak, so you get the greatest amount of relief. You can put the mask or mouthpiece down between contractions and use it on and off as you choose.

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

How well nitrous oxide works is different for every woman, but at least half of women who use it say it is helpful and they would choose to use it again. Some women say that it “takes the edge off” of the peak of the contractions, enough that they are able to cope with their labor better. Others report more pain relief. Nitrous oxide also lowers anxiety. This helps you feel less tense during contractions, which may also help you cope with pain better. Some women do not find nitrous oxide helpful enough or do not like the way it makes them feel. They can choose to try other options to help their labor pain. Other pain relief methods can still be used after using nitrous oxide.

## How will I feel while I am using nitrous oxide?

You might feel drowsy, lightheaded, or a little silly while you are using nitrous oxide. This is why it got the name laughing gas. Because you may feel a little unsteady, a family member or staff person should always be in the room while you are breathing the gas. These are common side effects that should go away quickly when you stop breathing the gas. Some women feel nauseous, and other medication can be given to make the nausea go away if needed. Rarely, women say they feel restless or confused at times.

## Does nitrous oxide have any bad side effects?

You can pass out for a minute if you take in too much gas. For this reason, you should be the only person controlling the amount of gas you receive. When you are the only person holding the mask or mouthpiece, your hand will slip away from the mask or mouthpiece, and you will no longer breathe in the gas if you start to get sleepy. This protects you from passing out.

## Does nitrous oxide affect my baby?

Nitrous oxide is the only pain relief method used for labor that is cleared from your body through your lungs. As soon as you pull the mask away, the effect of breathing the gas is gone within a few breaths. No extra monitoring is needed for you or the baby because you are using nitrous oxide. If you did get too sleepy, a monitor to check your oxygen levels might be placed on your finger. Nitrous oxide is safe for your baby, so if your baby's heart rate is being checked intermittently (off and on) rather than continuously (all the time) with a fetal monitor, that is still okay. If because of a risk factor it is best to have your baby checked continuously with an electronic fetal monitor, nitrous oxide is still safe to use.



**Does nitrous oxide affect labor progress?**

No, nitrous oxide does not have any effect on your uterus (womb) or contractions.

**Will my provider be administering the nitrous oxide?**

No. The nitrous oxide mask or mouthpiece is always held by the laboring woman and only the laboring woman. You breathe in the gas as you feel you need it. You set the mask or mouthpiece down when you don't feel you need to breathe the gas.

**Can I be out of bed and use nitrous oxide?**

Yes. As long as you are steady on your feet, you may be up and about in your room. You can stand at the bedside, sit on the commode or the birth ball, and so forth. In some hospitals, the equipment is plugged into a wall so you would need to be near where the nitrous oxide comes out of the wall to use it.

**Can I use nitrous oxide while I am in the tub?**

Different places of birth and health care providers will have different policies on if and how nitrous oxide can be used while you are in the tub. You should talk to your provider and/or the place you plan to give birth for specifics.

**Can I use nitrous oxide and have intravenous (IV) opioid medications (such as fentanyl) at the same time?**

Different places of birth and health care providers will have different policies on if and how other medications are used with nitrous oxide. You should talk to your provider and/or the place you plan to give birth for specifics.

**Must I choose between either using nitrous oxide OR having an epidural?**

No. Some women may use nitrous oxide before they have an epidural placed. Usually the epidural and nitrous oxide are not used at the same time. You may choose to use nitrous oxide first and then move to a different type of pain relief later in labor.

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

Yes. You cannot use nitrous oxide if you:

- cannot hold your own facemask or mouthpiece.
- have pernicious anemia (a vitamin B12 deficiency) and take vitamin B12 supplements.
- have a few other rare medical conditions that your provider will assess you for when taking your medical history.

**For More Information****Childbirth Connection**

<http://www.childbirthconnection.org/article.asp?ck=10188>

**The Best Chance**

<http://www.bestchance.gov.bc.ca/birth/giving-birth/pain-relief-options.html>

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