

West Metro Pediatric Dentistry
Nitrous Oxide and Behavior Management Techniques Information & Informed Consent
Information from the American Academy of Pediatric Dentistry (AAPD)
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Why Nitrous Oxide?

When used for analgesia/anoxiolysis, nitrous oxide/oxygen inhalation allows for diminution of elimination of pain and anxiety in a conscious patient, while entailing minimal risk. The patient responds normally to verbal commands. All vital signs are stable, there is no significant risk of losing protective reflexes, and the patient is able to return to preprocedure mobility. In children, analgesia/anoxiolysis may expedite the delivery of procedures that are not particularly uncomfortable, but require that the patient not move. It also may allow the patient to tolerate unpleasant procedures by reducing or relieving anxiety, discomfort, or pain.

What is nitrous oxide/oxygen?

Nitrous oxide is a colorless and virtually odorless gas with a faint, sweet smell. It is an effective analgesic/anoxiolytic agent causing central nervous system depression and euphoria with little effect on the respiratory system. Nitrous oxide/oxygen is a blend of two gases—oxygen and nitrous oxide. A fitted mask is placed over your child's nose, and as the patient breathes normally, uptake of nitrous oxide/oxygen occurs through the lungs. Once the nitrous oxide/oxygen flow is terminated, 100 percent oxygen will be administered until your child has returned to pretreatment status.

How will my child feel when breathing nitrous oxide/oxygen?

Your child will smell a faint sweet aroma and experience a sense of well-being and relaxation. Since it may produce a feeling of giddiness or euphoria, it is often called "laughing gas." Children sometimes report dreaming and their arms and legs may feel "tingly." It raises the pain threshold and may even make the time appear to pass quickly. If your child is worried by the sights, sounds, or sensations of dental treatment, he or she may respond more positively with the use of nitrous oxide/oxygen.

How safe is nitrous oxide/oxygen?

Very safe. Nitrous oxide/oxygen is perhaps the safest sedative in dentistry. It is well tolerated. It has a rapid onset, is reversible, can be adjusted in various concentrations and is non-allergenic. Your child remains fully conscious—keeps all natural reflexes—when breathing nitrous oxide/oxygen. He/she will be capable of responding to questions or requests.

Are there special instructions for nitrous oxide/oxygen?

First, give your child little or no food in the two hours preceding the dental visit (occasionally, nausea or vomiting occurs when a child has a full stomach*). Second, let us know about any respiratory conditions that make breathing difficult for your child, as it may limit the effectiveness of nitrous oxide/oxygen. Third, let us know if your child is taking any medications the day of the appointment.

**According to the AAPD, "The most common adverse effects, occurring in 0.5-1.2 percent of patients, are nausea and vomiting. A higher incidence is noted with longer administration of nitrous oxide/oxygen, fluctuations in nitrous oxide levels, lack of titration, increased concentrations of nitrous oxide, and a heavy meal prior to administration of nitrous oxide. Fasting is not required for patients undergoing nitrous oxide analgesia/anoxiolysis. The practitioner, however, may recommend that only a light meal be consumed in the two hours prior to the administration of nitrous oxide."*

Will nitrous oxide/oxygen work for all children?

Pediatric dentists know that all children are not alike. Every service is tailored to your child as an individual. Nitrous oxide/oxygen may not be effective for some children, especially those who have severe anxiety, nasal congestion, or discomfort wearing a nasal mask. We will review your child's medical history, level of anxiety, and dental treatment needs and inform you if nitrous oxide/oxygen is recommended for your child.

According the AAPD, contraindications for use of nitrous oxide/oxygen inhalation may include: "1. some chronic obstructive pulmonary diseases. 2. current upper respiratory tract infections. 3. recent middle ear disturbance/surgery. 4. severe emotional disturbances or drug-related dependencies. 5. first trimester of pregnancy. 6. treatment with bleomycin sulfate. 7. methylenetetrahydrofolate reductase deficiency. 8. Cobalamin (vitamin B-12) deficiency."

Are there restrictions with nitrous oxide/oxygen and pregnancy?

If you are pregnant or think you may be pregnant, you may not stay in the room during treatment with the use of nitrous oxide/oxygen.

Because we cannot accurately determine, nor would we want to speculate about the possibility of pregnancy, we require that you accept responsibility for asking if your teenage daughter may be pregnant before any dentistry is provided. You, the parent, must inform us if your daughter is pregnant. Further, if we suspect your daughter is pregnant, we will be required to ask her but will do so privately. We may be required under state law to protect her privacy and will not be held liable for our adherence to state law.

What other anxiety reducing techniques may be used to help my child through his/her dental appointment?

The following is a list of some of the other anxiety reducing techniques that may be used in addition to or instead of nitrous oxide/oxygen to help your child through his/her dental appointment. Please know that none of these techniques or tools are used in any way as punishment. They are standards of care in the pediatric dental community, and are used only if necessary to provide the best dental care. They are used to calm the child, gain the cooperation of the child to eliminate disruptive behavior, to prevent him/her from causing personal injury due to uncontrollable movements, and to make the procedure more comfortable for the child.

- Positive Pre-Visit Imagery: Patients are shown positive images of dentistry & dental treatment.
- Direct Observation: Patients observe (either via video or directly) other cooperative patients.
- Tell-Show-Do: Verbal explanation, demonstration, and completion of the procedure.
- Ask-Tell-Ask: Inquiring about the patient’s feelings, explaining the procedure, and again inquiring about patient understanding.
- Voice Control: A deliberate alteration of the voice volume, tone, or pace to influence & direct behavior.
- Nonverbal Communication: Behavior reinforcement & guidance through appropriate contact, posture, expression, body language.
- Positive Reinforcement and Descriptive Praise: Rewarding desired behavior through social and nonsocial reinforcers.
- Distraction: Diverting the patient’s attention from what may be perceived as an unpleasant procedure.
- Memory Restructuring: Memories associated with a negative event are restructured into positive memories.
- Parental presence/absence: The presence or absence of the parent sometimes can be used to gain cooperation for treatment.
- Protective Stabilization: The dentist, parent, or assistant controls the patient from movement by gently holding the child’s hands or upper body, or by stabilizing the child’s head between the dentist’s arms and body. This is done for the child’s safety.

ALL IN GOOD INTENTION: It is our intent that all professional care delivered in our dental office shall be of the best possible quality we can provide for each child. We believe that any dentist can get your child’s work done – our mission is to do so in a manner which leaves your child with good positive feelings about going to the dentist. The entire focus is on your child, relating to them, fostering good dental health habits and instilling a healthy, positive attitude toward dentistry for life.

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|---|---|-----------|--|------------|---------------|-----|
| Child’s Name: | | Nickname: | | Birthdate: | / | / |
| Does your child have any specific health conditions? | Y / N | If yes: | | | | |
| Is your child taking any short- or long-term medications? | Y / N | If yes: | | | | |
| Does your child have any drug or other allergies? | Y / N | If yes: | | | | |
| Please check one of the following: | <input type="checkbox"/> Yes, my child may have nitrous oxide/oxygen today. <input type="checkbox"/> No, my child may not have nitrous oxide/oxygen today. | | | | | |
| AUTHORIZATION FOR USE OF NITROUS OXIDE/OXYGEN AND OTHER ANXIETY REDUCING TECHNIQUES | | | | | | |
| <i>I acknowledge reading and understanding all of the above content. I have been encouraged to ask questions about the use of nitrous oxide/oxygen and other anxiety reducing techniques and they have been answered in a satisfactory manner. I authorize West Metro Pediatric Dentistry to use the above anxiety reducing techniques (nitrous oxide/oxygen specially noted below) to help my child through his/her appointment. I acknowledge that I have not been coerced/ forced to sign this consent and that I have been given the alternative to withdraw from it.</i> | | | | | | |
| Parent/Legal Guardian Signature: | | | | | Today’s Date: | / / |
| <i>Thank for completing this form—we appreciate your time! Sections below are for administrative purposes.</i> | | | | | | |

| Patient Weight: | Indications for Use: | |
|-------------------------------------|----------------------|--|
| 100% Oxygen Start Time: | | A fearful, anxious, or obstreperous patient. |
| Nitrous Start Time: | | Certain patients with special health care needs. |
| Nitrous Percent: | | A patient whose gag reflex interferes with dental care. |
| Flow Rate: | | A patient for whom profound local anesthesia cannot be obtained. |
| Nitrous End/100% Oxygen Start Time: | | A cooperative child undergoing a lengthy dental procedure. |
| 100% Oxygen End time: | | Dentist Initials |