



# El Dorado County Emergency Medical Services Agency

## Quick Reference

Revised Date: July 1, 2020

### Medication Profile

#### **Nitrous Oxide** (Nitrox, N<sub>2</sub>O:O<sub>2</sub>)

##### **Class:**

Analgesic gas

##### **Action:**

Produces rapid, reversible relief from pain

**Onset:** 2-5 minutes

**Duration:** 2-5 minutes

##### **Adult & Pediatric Administration:**

Nitrous Oxide is self-administered and can be administered to any age patient that is able to follow instructions and hold mouthpiece/mask.

1. Set up equipment outside ambulance
2. Explain the procedure to the patient
3. Instruct the patient to do the following:
  - a. Hold the facemask securely over nose and mouth
  - b. Breath normally until the pain is relieved
  - c. Discontinue if Patient becomes drowsy or experiences side effects
4. Turn off nitrous oxide once patient is secured within ambulance

Higher elevations require higher concentrations of Nitrous Oxide:

- Above 4000ft: 60/40
- Below 4000ft: 50/50

##### **Indications:**

Fractures, sprains, soft tissue injuries, burns  
Amputations

Low back pain (below level of thoracic spine)

Snake bites

Kidney stones

Contact base station for other uses

##### **Contraindications:**

Administration in ambulance or small spaces

Patient unable to hold mask/mouthpiece

Severe COPD

Decompression Sickness

Head injury

GCS less than 14

Hypotension

Pregnancy

Sedated or intoxicated patients

Pneumothorax

Bowel obstruction

Chronic ear or sinus infection

Chest/upper back pain from any cause

##### **Side Effects:**

Hypotension, Dizziness/ lightheadedness, ALOC,

Nausea/Vomiting

**Pregnancy:**

Category X

**Notes:**

Nitrous Oxide is a schedule III medication: Controlled substance Act of 1970.