

ACTION: Increases arterial oxygen tension (SaO₂) and hemoglobin saturation

INDICATIONS: LOW CONCENTRATION (24 - 44%):

1. History of chronic obstructive pulmonary disease (emphysema, chronic bronchitis, asthma in adult, heavy smoker [40 pack years or more])
2. Patients with SaO₂ readings ≥ 95%

INDICATIONS: HIGH CONCENTRATION (60 - ≈ 100%):

1. Smoke, carbon monoxide, or toxic gas inhalation
2. Trauma or suspected blood loss
3. Hypoxia (SaO₂ < 95%) from any cause
4. Respiratory distress, poor capillary refill or other indications of poor oxygenation
5. Unresponsive patient
6. Obstetric patients with known or suspected complications

CONTRAINDICATIONS:

1. None in the prehospital setting

PRECAUTIONS:

1. This guideline refers to spontaneously breathing and adequately ventilating patients only.
2. High concentration O₂ in some cases (emphysema and asthma) may depress respiratory drive; be prepared to assist ventilation, but don't allow patients to become severely hypoxic for fear of respiratory arrest.
3. Agitation or restlessness can be a sign of hypoxia.
4. Do not use in the presence of open flames.
5. Treatment for anxiety hyperventilation should be treated with reassurance and coaching to slow breathing. If the possibility of another underlying cause exists (i.e. pulmonary embolus, asthma, MI) then the patient should be treated with oxygen. DO NOT treat any patient by having them breathe into a paper bag or O₂ mask that is not supplied with O₂.

ADVERSE REACTIONS/SIDE EFFECTS:

1. Nonhumidified oxygen can dry mucous membranes, but humidified O₂ is not indicated in the prehospital setting.

ADMINISTRATION:

1. Deliver low concentrations via nasal cannula @ 1 - 6 lpm.
2. Deliver high concentrations via non-rebreather mask @ 6 - 15 lpm.
3. Attempt to obtain and document pulse oximetry readings before and during oxygen therapy.

PEDIATRIC CONSIDERATIONS:

1. Use pediatric mask or blow-by if mask is not tolerated.

SPECIAL NOTES:

1. If oximetry is unavailable, patients should receive high concentration oxygen unless low concentration is indicated.