



POLICY NO:	802
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**MEDICAL RESERVE CORPS**

**Monitoring Oxygen Saturation – Use of Pulse Oximetry**

**Purpose:** The purpose of the Administration of Oxygen protocol is to describe the various methods of monitoring oxygen saturation.

**Procedure/Policy:** The MRC volunteer is to adhere to the following protocol anytime they are functioning as an MRC volunteer at a MRC First Aid Station or MRC sanctioned event. At no time may a caregiver provide care or treatment outside their scope of practice.

**Monitoring Oxygen Saturation**

Pulse oximetry is used to measure the percentage of oxygen saturation in the blood and appears as a percentage of hemoglobin saturated with oxygen. Pulse oximetry readings are recorded using the percentage SpO2 (e.g., 95 to 99 percent SpO2).

Range	Percent Oxygen Saturation Level (SpO2)	Oxygen Delivery Device
<b>Normal</b>	95–100% SpO2	None
<b>Mild hypoxia</b>	91–94% SpO2	Nasal cannula or pocket face mask w/O2 inlet
<b>Moderate hypoxia</b>	86–90% SpO2	Nonrebreather mask or BVM
<b>Severe hypoxia</b>	<85% SpO2	Nonrebreather mask or BVM

To use a pulse oximeter, apply the probe to the patient’s finger or any other measuring site, such as the earlobe or foot, according to the manufacturer’s recommendation. Let the device register the oxygen saturation level and verify the patient’s pulse rate on the oximeter with the actual pulse of the patient. Monitor and record the patient’s saturation levels while administering emergency oxygen. Measure SpO2 every five minutes after starting oxygen therapy.

**Pulse Oximeter Limitations** - Factors that may reduce reliability of pulse oximetry reading:

- Hypoperfusion, poor perfusion (shock)
- Cardiac arrest (absent perfusion to fingers)
- Excessive motion of the patient during the reading
- Fingernail polish (remove it using an acetone or non acetone wipe)
- Carbon monoxide poisoning (carbon monoxide saturates hemoglobin)
- Hypothermia or other cold-related illness
- Sickle cell disease or anemia
- Cigarette smokers (due to carbon monoxide)

**APPROVED:**

*Nancy Lapolla*

*John Elder*

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- Edema (swelling)
- Time lag in detection of respiratory insufficiency (the pulse oximeter could warn too late of a decrease in respiratory function based on the amount of oxygen in circulation)