



## What is Pulse Oximetry

The lungs transfer oxygen from the air into the bloodstream. This oxygenated (arterial) blood is then pumped by the heart to all organ systems. The arterial oxygen blood level can be measured by drawing blood from an artery (arterial blood gas measurement). This accurately measures the oxygen and carbon dioxide (waste gas of metabolism) and levels of each in the blood.

An oximeter, usually attached to the finger, shines two separate light beams into the blood circulating in the small vessels, i.e., capillaries. These light beams reflect the amount of oxygen in the blood, expressed as a percentage along with the pulse rate (*Figure 1*). Oxygen saturation measures how much oxygen the blood is carrying compared with its full capacity. Oxygen saturation of 96% to 98% is normal at sea level; 92% to 94% is normal in Denver. Nail polish that is very dark may interfere with the oxygen reading. If you are routinely measuring your oxygen saturation you may need to avoid these very dark shades.

