



ALAR ONE-SENSE™ SENSOR

The Next Generation of Pulse Oximetry

The Nasal Alar Site for Pulse Oximetry

Challenges Using the Traditional Finger Sensor

The most frequently used site for pulse oximetry is the distal portion of the finger. However, it is not optimal in many instances including:

1. Decreased perfusion from peripheral vascular disease, hypovolemia, hypothermia, anxiety, or medications causing vasoconstriction etc.
2. Limited access to the hand by the anesthesiologist
3. Signal distortion due to motion
4. Injury
5. Presence in the surgical field
6. Non-invasive blood pressure cuff interruption
7. Arm tucking and shivering

The Alar Site

The nasal ala, the fleshy part of the nose adjacent to the opening of the nares (nostril), is a region rich in vasculature and offers a unique monitoring site for pulse oximetry. This site is fed by both the external and internal carotid arteries; the latter also provides blood to the brain. In research studies, the alar sensor detected desaturations up to 30 seconds faster than finger-applied sensors.³

Rich Blood Supply

The rich vasculature at the ala means that signals are strong, reliable and highly responsive to cardiorespiratory changes. The ala is also an ideal site as it is usually easily available to an anesthesiologist.

Faster Detection of SpO₂ Changes

Central monitoring sites have been shown to be more responsive to desaturation than peripheral locations² enabling rapid detection of events and earlier intervention to potential critical changes. References:

References

1. Saban Y et al. Arch Facial Plast Surg. 2012.
2. Reynolds LM et al. Anesth Analg. 1993; 76:751-4.
3. Comparative Desaturation Study performed at Xhale Assurance, Inc. and University of Florida, 2012. Data on file at Xhale Assurance, Inc



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