

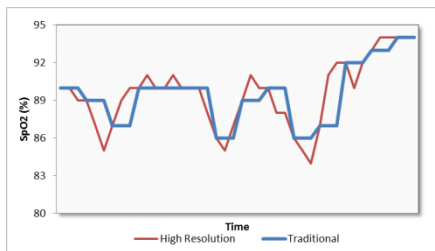
FAQ's – High Resolution Pulse Oximetry

Why does the type of oximeter I use matter?

Studies have shown proper diagnosis may be subject to the type of oximeter used, making it important to select a High Resolution Pulse Oximeter (HRPO). Additionally, the high level of accuracy & precision afforded by HRPO makes it possible for SatScreen to analyze data trends and provide more informative reports.

What makes High Resolution Pulse Oximetry different?

High Resolution Pulse Oximeters incorporate faster sampling rates, higher signal resolution & sophisticated motion artifact algorithms.



Sampling Rate

Traditional oximeters have a relatively low sampling rate (generally, once every 3 seconds). A lower sampling rate may underestimate event amplitude for apneas, resulting in missed events.

High resolution oximeters with sampling rates of ≥ 1 Hz provide better signal averaging, leading to a more accurate ODI/RDI.

Signal Resolution

In a 2010 oximetry device comparison study, Bohning et al concluded that devices with a high (0.1%) signal resolution:

- Showed better reproducibility than standard resolution oximeters.
- For the detection of shorter apneas, the higher resolution was more desirable.

Motion Artifact Detection

New algorithms compensate for patient movement during sleep, meaning less data is excluded prior to analysis.

Related articles:

1. **Keeping a Pulse on Oximetry** by Tor Valenza. *Sleep Review*. April 2008.
2. **Comparability of pulse oximeters used in sleep medicine for the screening of OSA.** N Böhning et al 2010 *Physiol. Meas.* **31** 875
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