

# Consistent signal quality

**OPM delivers stable signal quality across all skin tones and illumination wavelengths throughout the full oxygen desaturation range.**

## Data across skin tones

The figure illustrates signal quality during the hypoxia test using a 3D stem plot. Signal-to-noise ratio (SNR) is plotted against blood oxygen saturation ( $\text{SaO}_2$ ), as measured by the blood gas analyser, and is shown across the four illumination wavelengths of the OPM device worn on the wrist. Data is presented for three representative participants, one selected from each skin tone cohort (light, medium, and dark).

Across all three participants and all illumination wavelengths, SNR remains consistently high throughout

the desaturation range. This demonstrates that the device maintains strong, usable signals even at lower oxygenation levels.

A modest reduction in SNR is observed for the participant within the darkest skin tone cohort. This is an expected effect resulting from higher optical absorption in more highly pigmented skin. Importantly, SNR remains sufficiently high to support reliable physiological measurements.

