

Masimo Announces Development Of Delta CHb, HHb, And O2Hb Indices For O3®



Masimo announced today three additional indices (delta cHb, delta HHb, and delta O2Hb) for [O3® Regional Oximetry](#). These indices provide clinicians with additional visibility into changes in the underlying oxyhemoglobin and deoxyhemoglobin components used to calculate cerebral oxygen saturation, rSO2. With these additions, clinicians will now be able to view the relative contribution of each component to a patient's overall rSO2. O3, available on the [Masimo Root® Patient Monitoring](#) and Connectivity Platform, is FDA cleared for the monitoring of cerebral oxygenation and may be helpful in situations in which peripheral pulse oximetry alone may not be fully indicative of the oxygenation of the brain.

O3 uses near-infrared spectroscopy (NIRS) to monitor and display continuous rSO2 values for each side of the brain. As the degree of oxygenation in cerebral tissue changes, the wavelengths of light absorbed by that tissue and those returned to the O3 sensors also change, forming the basis for the measurement of regional (cerebral) oxygen saturation, rSO2. Until now, rSO2 has been displayed as a single, continuous value for each side of the brain. With these three new indices, O3 can now display information about the changes in the underlying components used to calculate rSO2 values. Delta O2Hb provides an index representing changes in the oxyhemoglobin component of the rSO2 calculation. Delta HHb provides an index representing changes in the deoxyhemoglobin component of the rSO2 calculation. Finally, delta cHb provides an index representing the sum of delta O2Hb and delta HHb.

O3 is available as a [Masimo Open Connect® \(MOC-9®\)](#) module for Root, a powerful, expandable hub that integrates an array of technologies, devices, and systems to provide multimodal monitoring and connectivity solutions. Root's plug-and-play expansion capabilities allow clinicians to simultaneously monitor with O3 and other measurements, such as SedLine® brain function monitoring – for a more complete picture of the brain – and SET® Measure-through Motion and Low Perfusion™ pulse oximetry, for expanded visibility of oxygenation status. O3 is available for all patient populations, with sensors in three sizes, for adult (≥40 kg), pediatric (≥5 kg and <40 kg), and infant and neonatal (<10 kg) patients.

Joe Kiani, Founder and CEO of Masimo, said, "We are proud to announce these three O3 indices, which we developed in response to requests from clinicians. Now, for the first time, clinicians can monitor not just overall cerebral oxygen saturation but also have access to additional data on the changes in the underlying oxyhemoglobin and deoxyhemoglobin components that make up rSO2 values – data that we hope can help provide additional insight into patient status."

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