



OxyPrem

The new way of
measuring brain oxygen
levels of preterm infants

OXYPREM



Total view of OxyPrem sensor



OxyPrem sensor with USB connector

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Preterm birth and its direct consequences are the leading cause of death worldwide for children under five years of age. There are around 15 million infants born prematurely every year and about 1 million deaths associated with prematurity. Globally operating organizations such as UNICEF, the Bill & Melinda Gates Foundation, Save the Children, and many more are currently tackling this problem.

OxyPrem is the first medical device that reliably monitors the oxygen levels of preterm infants' brains in real time. Using harmless, noninvasive near-infrared light, it continuously measures local oxygenation. Clinicians can set a target level and receive immediate notification if values move above or below that level. Several simple measures can then be taken to increase or decrease the oxygenation level, for example via the incubator atmosphere or through CPAP breathing support, a commonly used method.

OxyPrem is reusable and sturdy, and its use requires only a PC or tablet. It is therefore a feasible solution even for difficult environments. It will also be compatible with frequently used standard hospital monitors in the near future.

At Wyss Zurich, the next steps are being taken so that OxyPrem can be used in the hospital setting. The first goals are to manufacture an initial batch of OxyPrem systems and obtain CE certification. The systems are to be introduced to hospitals throughout Europe in a large-scale, pan-European study running from 2019 to 2021. At the same time, efforts are being made to gain CE mark certification under the new MDR regime. Market entry is envisioned for 2022.



OxyPrem
is a Wyss Zurich Project
www.wysszurich.uzh.ch