Max-Fast™ Forehead Sensor
When Timing is Critical
Some patients represent a challenge for monitoring due to:
- Intense vasoconstriction
- Hypovolemia
- Hypothermia
- Therapeutic hypothermia
- Low cardiac index
- Septic shock
- Severe peripheral vascular diseases

For these patients, it is even more important to have:
- Accurate data correlated to blood gas
- Rapid detection of SpO2 changes

When timing is critical, you can be alerted of changes in SpO2 about two minutes earlier than with digit sensors.
Arterial blood travelling from the heart reaches the head sooner than it reaches distal sites such as fingers, especially when patients have poor pulse perfusion. Because forehead circulation is fed by the supraorbital artery, this area is not as prone to vasoconstriction during low perfusion as other sites. Therefore the pulse amplitude is not affected.

**SpO2 obvious**

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**IMPACT OF COLD-INDUCED VASOCONSTRICTION**

The head and fingers are warm and well perfused upon initial exposure to the cold room.

After 45 minutes, the fingers, ears and nose are cold, indicating vasoconstriction and low regional perfusion. The forehead temperature is well maintained.

Bebout DE et al.²
When digit sensors fail to detect pulsatile signal, Max-Fast™ forehead sensors can often obtain SpO2 readings. During poor peripheral perfusion, the Max-Fast™ forehead sensor typically detects changes in SpO2 about two minutes earlier than conventional sensors. During conditions of poor peripheral circulation, the forehead site is less prone to peripheral vasoconstriction. Forehead sensor is less prone to interference from natural movement. For patients subject to critical desaturations, the unique LoSat™ expanded accuracy range offers clinical information validated down to 60% SpO2.

The Max-Fast™ forehead sensor detects changes in SpO2 faster than finger sensors, and with an accuracy that correlates closer to arterial blood data.
Max-Fast™ forehead sensors have been designed specifically for the forehead:
- Dedicated LED for reflectance technology
- Specific emitter–receptor distance
- Black contact surface to avoid light interference

"Despite providing a seemingly satisfactory waveform and stable oxygen saturation measures, the use of a disposable (transmittal) finger oxygen saturation sensor on the forehead provided inaccurate readings in 11 out of 20 hypoxic ED patients."^5

A single Max-Fast™ forehead sensor can be used up to two days with appropriate site inspection and changes, thanks to its four layers of adhesive.

For accurate and reliable reading, use the soft, adjustable headband packaged with the Max-Fast™ forehead sensor to help prevent venous pulsation at the sensor site and maintain proper sensor position.

"Studies show that finger sensor usage on the forehead can lead to wrong SpO₂ readings despite a normal pleth curve."^5
The data obtained gives false reassurance as SpO₂ remains high even when the true value is at 70%.^3

Using The Max-Fast™ Forehead Sensor Is Very Easy
The Max-Fast™ forehead sensor is part of Covidien's extensive line of sensors, designed to meet the entire patient spectrum and to provide readings in most challenging perfusion and saturation situations.

OxiMax™ Single-Patient-Use Sensors

MAX-A-I
MAX-AL-I
MAX-I-I
MAX-N-I
MAX-R-I
SoftCare™
SC-PR-I
SoftCare™
SC-NEO-I
SoftCare™
SC-A-I
D-YS
DS100A
OXI-A/N
OXI-P/I
D-YS
with D-YS

OxiMax™ Reusable Sensors

YOU CAN BE SURE OF IT
Nellcor™ OxiMax™ technology is available in most OEM monitoring solutions.

Due to the unique operating characteristics and calibration curve inside the sensor, Max-Fast™ forehead sensors operate only with Nellcor™ OxiMax™ technology, which is integrated into multiparameter solutions of more than 70 OEM partners worldwide.

**Nellcor™ OxiMax™ Technology At Work**

ask if you already can use max-fast™ Forehead Sensors with your current equipment
USE THE RIGHT SENSOR ON THE RIGHT PATIENT

Use Max-Fast™ SpO2 forehead sensors to know faster, to secure your reading and to increase your accuracy compared to conventional sensors1, 6-10

Max-Fast™ forehead sensors provide,

- **Reliable information**
  Max-Fast™ forehead sensors give readings when conventional finger sensors fail6

- **Accurate readings**
  Max-Fast™ forehead sensors readings are correlated with blood gas analysis and are not affected by vasoconstriction7-9

- **Fast response**
  Max-Fast™ forehead sensors detect changes in SpO2 about two minutes earlier than conventional sensors10

**USE THE RIGHT SENSOR ON THE RIGHT PATIENT**


2. Bebout DE, Mannheimer PD. Effects of cold-induced peripheral vasoconstriction on pulse amplitude at various pulse oximeter sensor sites. Anesthesiology. 2002;96:A558 [Abstract]

3. A technology overview of the Nellcor OxiMax pulse oximetry system. Internal testing.

4. FDA 510(k).


