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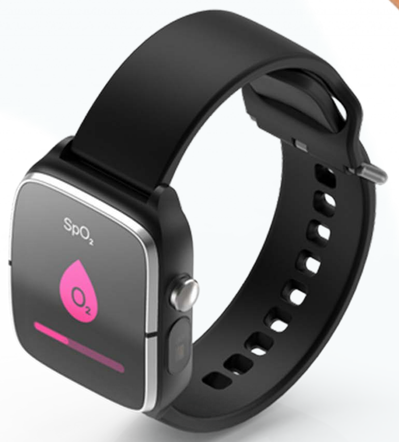
QUICK GUIDES **TECH**

SpO_2 BLOOD OXYGEN



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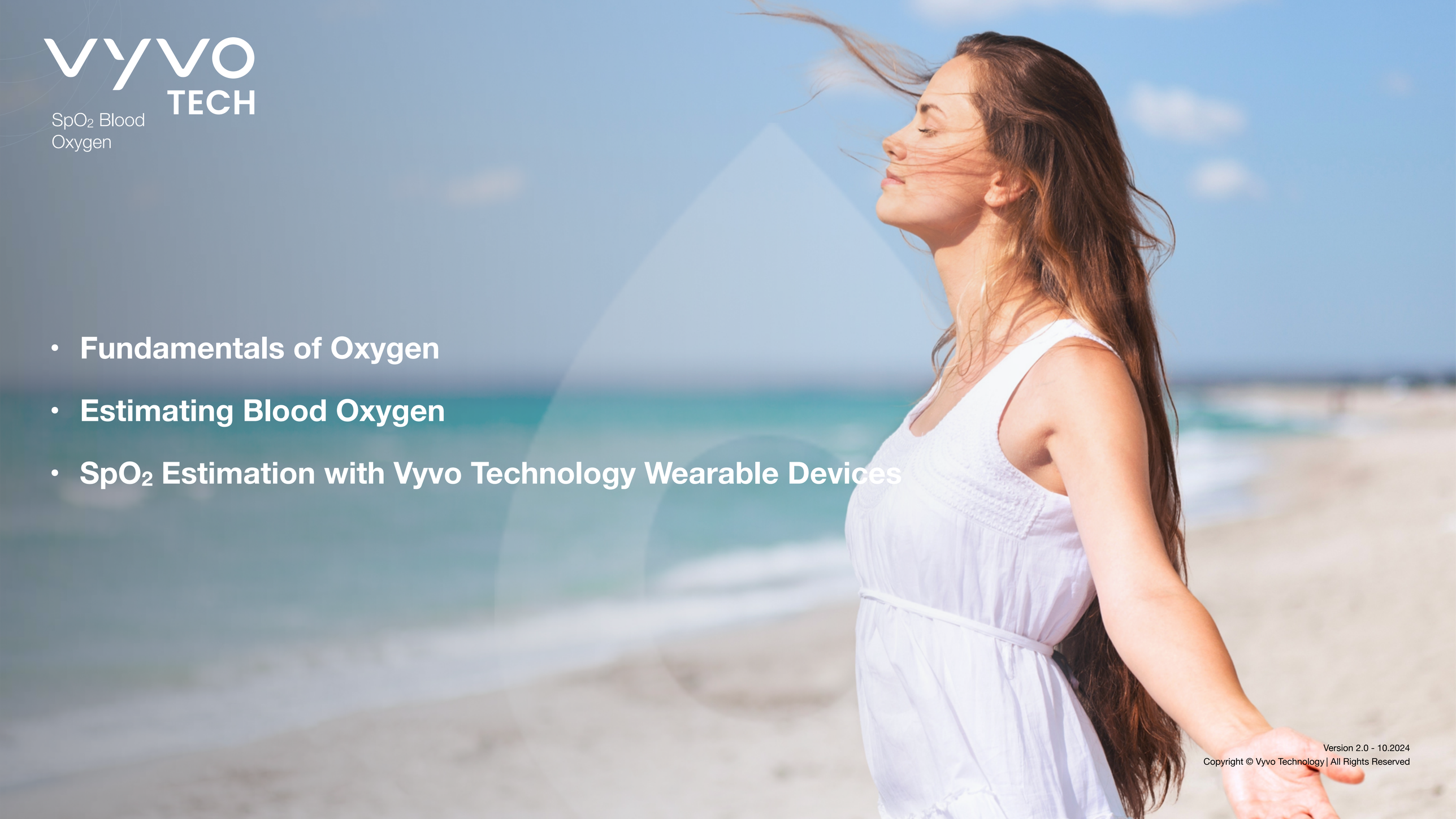
SpO_2 Blood Oxygen



- **Fundamentals of Oxygen**
- **Estimating Blood Oxygen**
- **SpO_2 Estimation with Vyvo Technology Wearable Devices**

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SpO_2 Blood Oxygen

Fundamentals of Oxygen

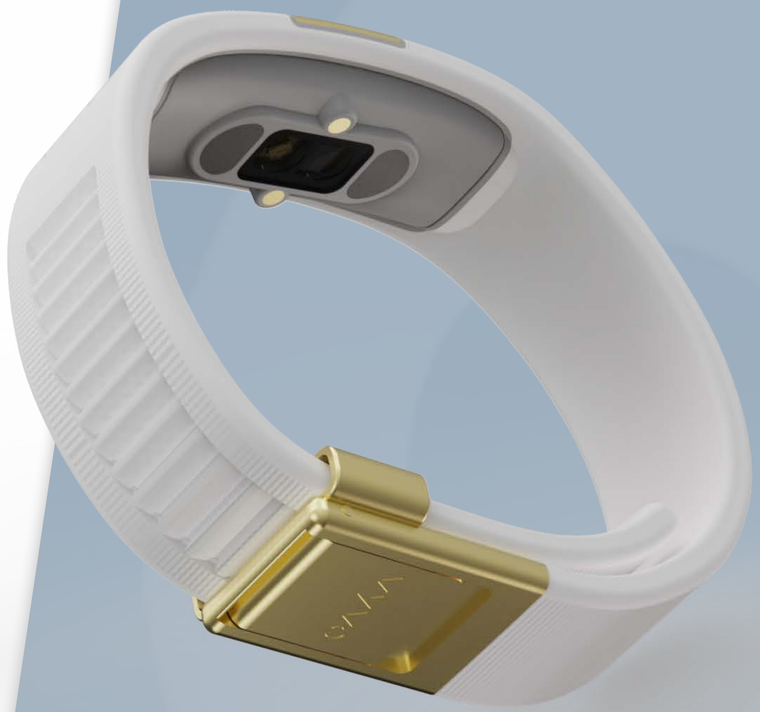
Oxygen is an element critical for the chemical reactions that most complex organisms require to maintain life.

100%
95%

In humans, blood oxygen saturation levels are typically 95 to 100 percent.

A saturation below 90 percent is hypoxemia and saturation below 80 percent is life-threatening.

Given the critical importance of oxygen to maintaining life, a convenient and accurate method of measuring oxygen saturation is not only useful but also potentially lifesaving.



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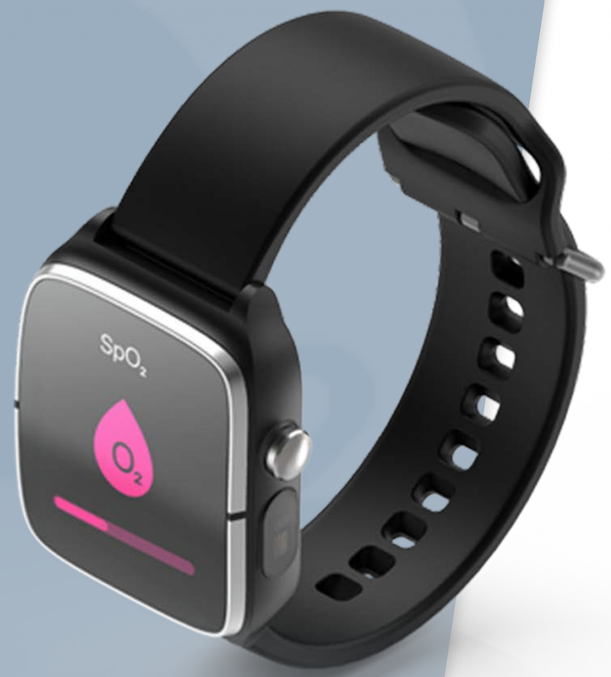
SpO_2 Blood Oxygen



Estimating Blood Oxygen

- A blood-oxygen saturation reading is the percentage of hemoglobin molecules in the blood.
- When measured by pulse oximetry, the reading is an estimate and is designated SpO_2.
- Pulse oximetry uses light and a photodetector to estimate oxygen based on hemoglobin in the bloodstream.
- Deoxygenated hemoglobin absorbs red light and allows infrared to pass through it, while oxygenated does just the opposite. This differing behavior enables the measurement.

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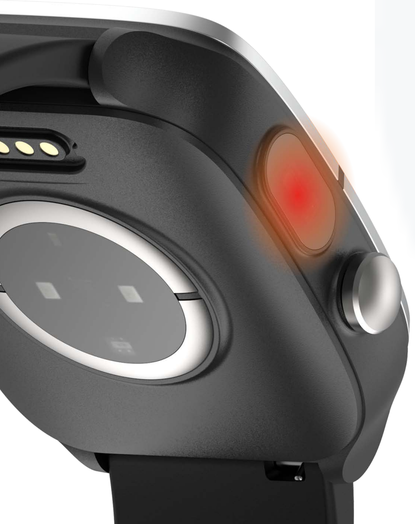
SpO_2 Blood Oxygen

SpO_2 Estimation with Vyvo Technology Wearable Devices

- Photoplethysmography (PPG) uses optical sensors to conveniently measure volume changes in blood and is widely used in pulse oximetry.
- Modern technology means these sensors are small enough to be built into wearable devices, making them suitable and convenient for consumer use.
- Vyvo Technology wearable devices are equipped with PPG functionality which can estimate SpO_2.



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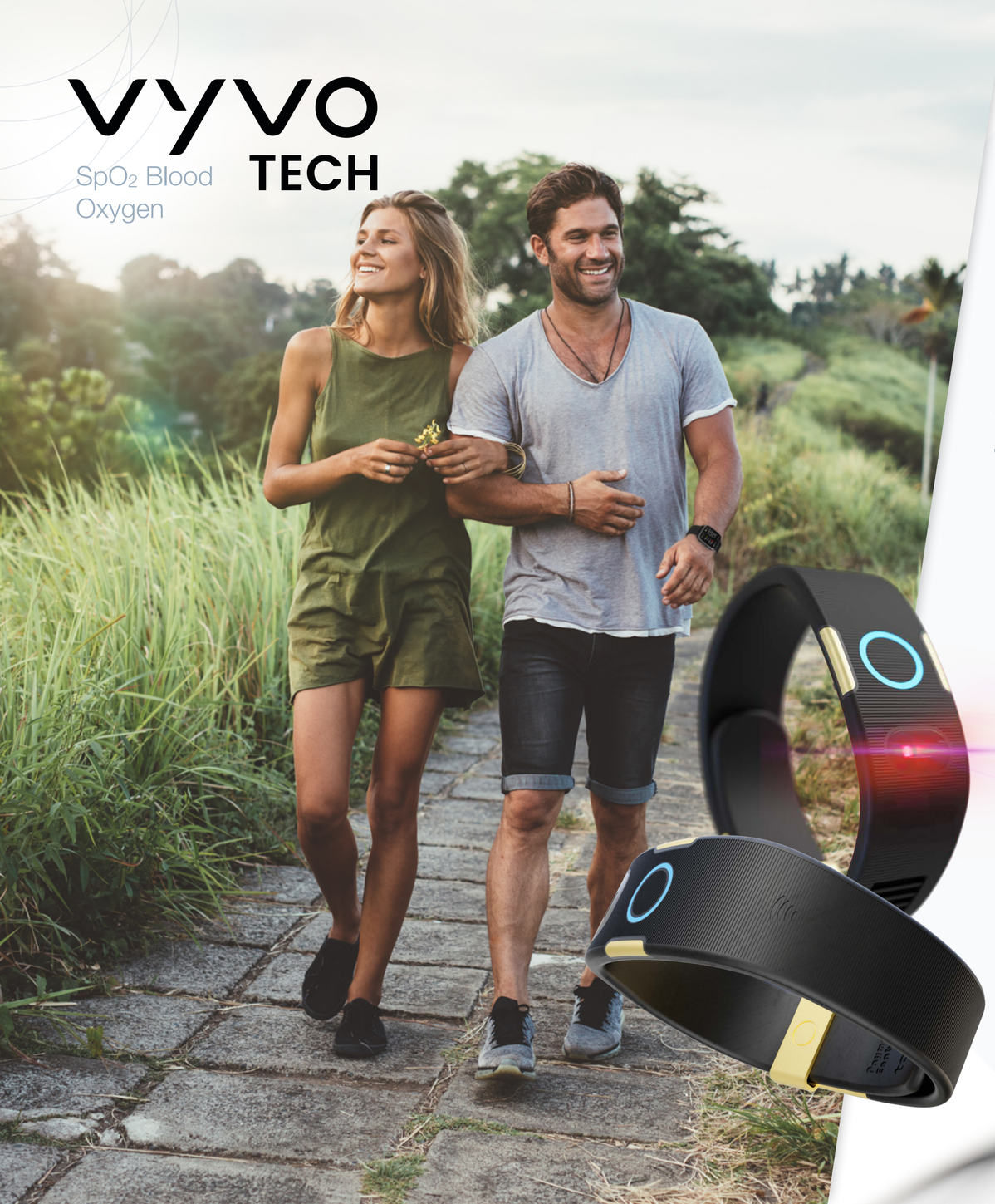
SpO_2 Blood Oxygen



SpO_2 Estimation with Vyvo Technology Wearable Devices

- The BioSense health band and LifeWatch Generation 2 from Vyvo Technology are equipped with a patented, clinical-grade fingertip sensor for highly accurate, on-demand readings of SpO_2, in addition to regular monitoring.
- This gives device users highly useful insights into their blood oxygen levels so they can take steps to address any concerns if necessary.
- PPG is an effective, accurate method for in-home monitoring, including pulse oximetry. Estimating blood saturation is just one of many personal health metrics Vyvo Technology wearable devices provide users.

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Cheers to Life Sensing Technology™

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