

What

Ember™ is the world's first non-invasive hemoglobin tracker for athletes. It non-invasively, easily and quickly measures hemoglobin (Hgb), pulse rate, elevation, (and coming late '16) perfusion index, respiration rate, PVI (which is a measure of respiratory exertion that may be indicative of hydration/dehydration or asthma), oxygen saturation, oxygen reserve index, and oxygen content.

How it Works

An athlete downloads the Ember app to his/her smartphone, connects it with Ember via Bluetooth, inserts a finger into Ember's non-invasive optical sensor, and in as fast as 30 seconds obtains a measurement. No needles. No blood draw. With the Ember app, an athlete can take, view, record and share with others (via email, SMS and social media) the measurements such as hemoglobin.

Why Hemoglobin is Important

Performing at an elite athletic level requires an adequate amount of hemoglobin – the key transporter of oxygen to the muscles and entire body. When hemoglobin levels are lower than normal, the body has less oxygen-carrying capacity and the heart and lungs must work harder to compensate. Many athletes increase their hemoglobin levels (and endurance) prior to big competitions via altitude training.

Ember's Key Benefits

Optimize altitude training:

An athlete (and his coach) may also see the impact of training at higher elevation on measured hemoglobin levels. Ember may help athletes optimize elevation training by showing how hemoglobin increases, when it peaks, and how long it stays elevated after an athlete leaves altitude to help them better time elevation training around competitions.

Detect signs of potential overtraining:

After exhaustive workouts, athletes' first-of-day hemoglobin measurements are typically lower and heart rate is typically higher. When this happens, athletes and their coaches may wish to adjust the next workout accordingly to help avoid overtraining (and resulting setbacks).^{1,2}

A Breakthrough in Sports Data Tracking

By determining and tracking hemoglobin levels, athletes may learn how this key measurement may change due to training, hydration, recovery times, diet and elevation. Multiple studies (see our website) have shown these factors affect hemoglobin, and thus, endurance sports performance. Knowledge is power.

About Us

Cercacor (www.cercacor.com) is an innovator of non-invasive, easy-to-use monitoring technologies. We help people access key health indicators – empowering them to better understand their bodies, enhance their fitness levels and reach their full potential. We are passionate about finding better ways to help endurance athletes and everyday people achieve the extraordinary.

Our technologies are licensed by Masimo (NASDAQ: MASI), a global leader in the development and distribution of non-invasive monitoring solutions in the healthcare professional market.

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2. Szygula et al. (1990) Erythrocytic system under the influence of physical exercise and training. *Sports Med* 10, 181-197.