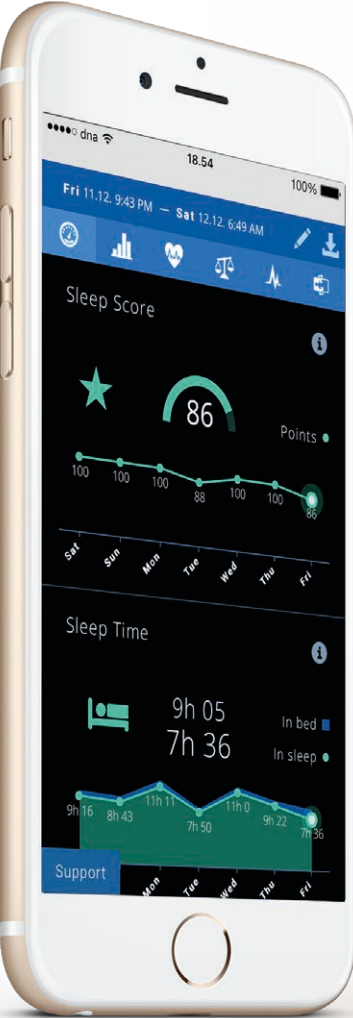# EMFIT QS™

World's First Contact Free Sleep Tracker with Heart-Rate-Variability

Contact free recovery, stress and sleep quality monitoring

Emfit QS gives you a detailed description of your sleep quality, stress level, and progression of recovery. With this data you can make well educated choices for daily workouts, meetings and other important events.

There's no need to wear a straining chest strap or wrist band, and no need to turn equipment on and off. Just lay down on your bed, sleep tight and check your bed-time data in the morning from your smartphone, tablet or computer.

Sensor can be unobtrusively installed even under a thick mattress.

Electronics with Wi-Fi; no phone needed!

Science behind Emfit QS

Emfit QS relies on ballistocardiography, which is a technique for producing a graphical representation of repetitive motions of the human body arising from the sudden ejection of blood into the great vessels with each heart beat.* Similarly breathing and all other body motions are sensed and interpreted into data.

*Wikipedia

Non-contact sleep tracker	Full night Heart-Rate-Variability	All three sleep classes (REM, Deep & Light)	30 day long term trends	Wi-Fi (no phone needed)	2 year limited warranty

Your heart tells your recovery and stress levels

Research links high heart-rate-variability to good health and an optimal level of fitness, while decreased HRV is linked to stress, fatigue and even burnout.

Tracking Heart-Rate-Variability throughout the night will give you a detailed picture of progression of your recovery during the night. The Evening RMSSD value shows accumulated stress over the day, and Morning RMSSD provides recovery status and readiness for a new day.

RMSSD data allows you to optimize your training schedule according to actual body requirements, helping you avoid overtraining and giving you a peak performance at the office too.

Long-term evaluation of HRV will determine how effectively your exercise or lifestyle changes are affecting your wellness.
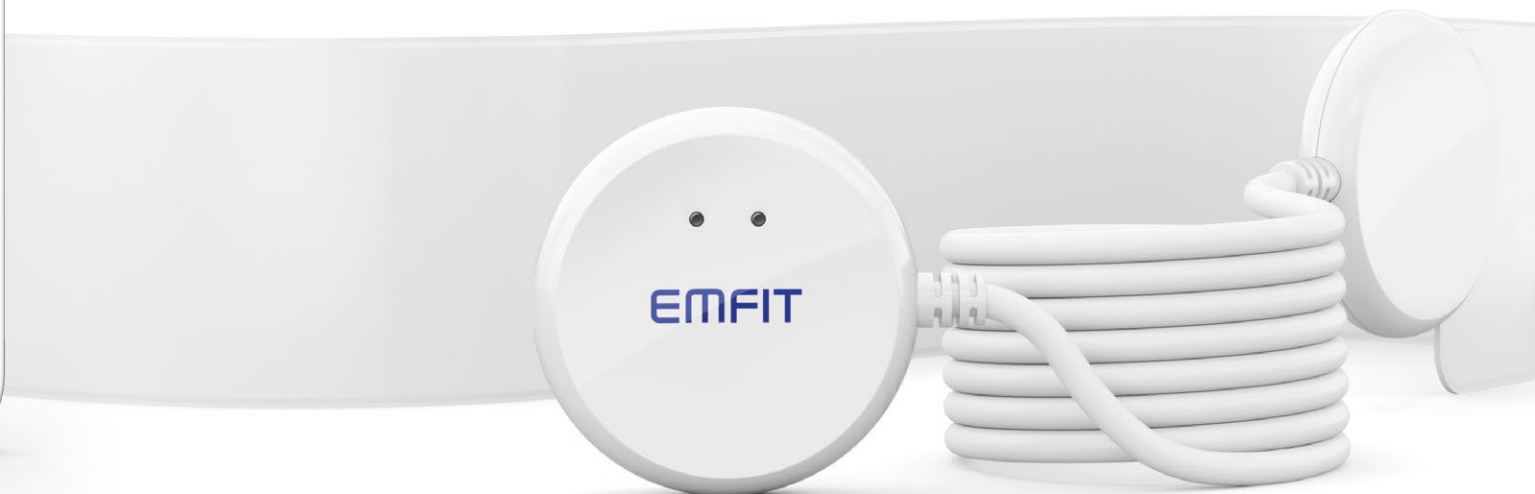
The Evening RMSSD value shows accumulated strain over the day, and Morning RMSSD indicates recovery status and readiness for a new day. Linear Fit line, Recovery Ratio and Total Recovery indicate efficiency and total amount of recovery (pat. pend.).

Sleep is paramount to peak performance — both physical and mental

It is essential to get enough sleep, but sleep should also be structured properly and contain enough REM sleep for the recovery of the mind, and DEEP sleep for the recovery of the body. Emfit QS records total amount and structure of sleep, the percentages of recuperating REM and DEEP sleep.

It also records heart rate, respiration rate, and activity during the entire night. Overall, it enables you to find sleep affecting patterns and improve them. Results of training or lifestyle changes can be studied with the long term trends feature.

Teemu Lemmettylä
Professional Triathlete

Testimonials

Sky Christopherson:

"Working with Olympic athletes, we use 'Data not Drugs' to boost every aspect of athlete health and performance. Since sleep is foundational to health and performance, it is a focal point of our program and we have used every sensor on the market.

Emfit is creating new capabilities in understanding sleep both with the goal of improving it, but also using it to better inform training decisions as we moved towards truly individualized training.

The ease of use and accuracy of Emfit is also unprecedented. As a result, Emfit is now an integral part of our 'Data not Drugs' program as we build a future that uses more data and less drugs, in sport, and hopefully in health."

Sky Christopherson
World Record Holder and Founder,
OAthlete Inc.

Teemu Lemmettylä:

"Emfit QS allows me to optimize my training potential by providing a baseline HRV, enabling me to control and manage the ideal balance between training and rest."

Teemu Lemmettylä
Professional Triathlete
8 x Top 10 Pro Ironman distance finisher
2 x Ironman distance Finnish champion
7th in Norseman 2015
Master of Sport Sciences

Ben Rubin:

"I've been working on sleep technology for over a decade and the Emfit QS is some of the most impressive technology I've seen in the space. It's easy to setup, requires absolutely no effort to use (just sleep!), and provides a compelling amount of data & insight."

Ben Rubin
Co-founder, Zeo, Inc.

LOG IN WITH **UNDER ARMOUR**

Emfit QS connects with
Under Armour Record

Emfit QS — backed by independent research

Emfit sensor technology has been utilized over decades in several different health & human tech applications, ranging from basic vitals measurement, to different care taking, medical and mental applications. As a result of this work, close to one hundred scientific research articles have been published. For the list of selected works, please go to **www.emfit.com/publications.**

Device (model IP-9360)
· Non-contact
· Under mattress, passive, medical grade sensor technology
· Wi-Fi (no mobile phone needed)
· Web-based application, mobile optimized
· Robust and durable
· High sensor sensitivity
· 2 year warranty
Data
· Heart rate, respiration rate and physical activity (sampled at every 2 seconds)
· Real 3-stage sleep classification (REM, light, deep)
· Whole night Heart-Rate-Variability -measurement (100-200 three minute epocs)
· Recovery indices: Recovery ratio, total recovery, Integrated Recovery, evening and morning RMSSD
· Whole night autonomic nervous system balance (LF/HF ratio)
· 30 day long term trends
· Support for groups

Emfit QS hardware and web application is a general wellness product for tracking the impact of free-time activities on sleep, recovery and well-being. It is not a medical device and is not intended to be used for diagnosis or monitoring of disease or other conditions, or investigation of a physiological process.
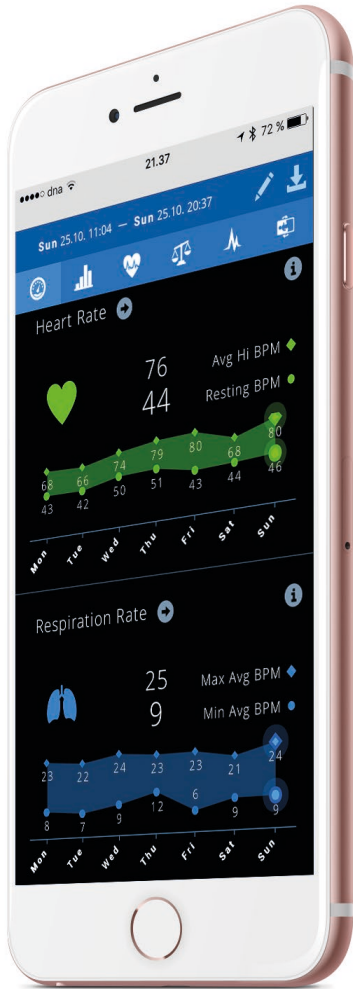
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Designed and manufactured in Finland