

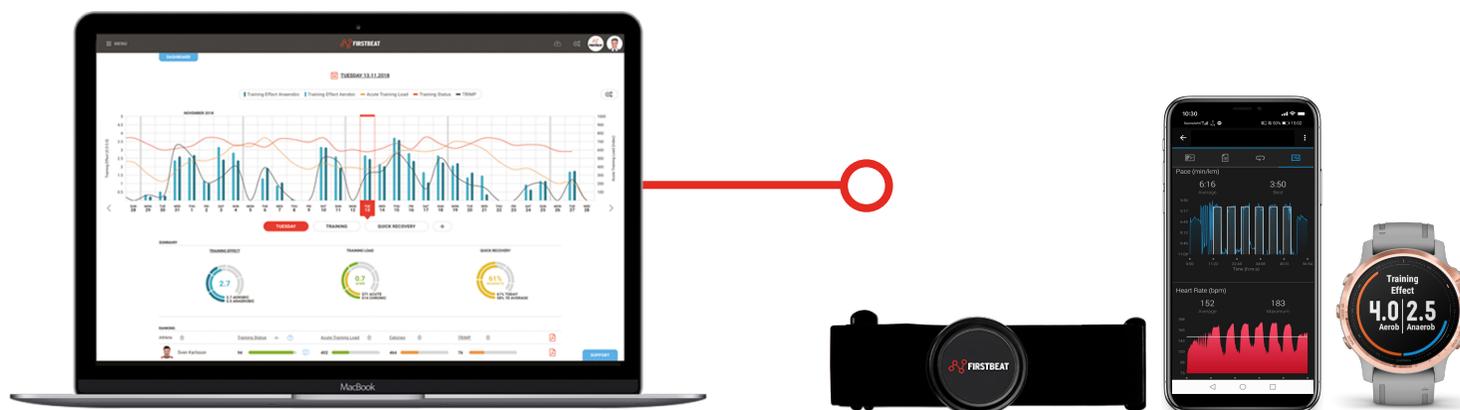
Incorporating activity data from your Garmin wearable into Firstbeat Sports

Combine all-day health and activity data from **Garmin wearables** with the athletic performance analysis platform, Firstbeat Sports, to create training programs based on a holistic view of an athlete's day.



A complete picture with Garmin Connect

January 2020: Release of the Firstbeat Sports Feature*



Garmin Health API activity data recorded using a Garmin wearable device can be automatically transferred, further analyzed, and made visible in Firstbeat Sports.

*Firstbeat Sports Premium

“

Garmin is excited to extend our relationship with Firstbeat into the arena of **elite sports coaching**.

Performance data is just one part of the picture of an athlete's health. This new integration enables Firstbeat to provide a holistic view to coaches and athletes, opening the door to greater performance, recovery and overall health.

- **Joe Schrick**, Garmin Vice President Fitness Segment

Adding Garmin activity data to this ecosystem will support coaches in getting the full picture on their athletes' training away from monitored practice or during the offseason and allow athletes to better understand their own body's response to training.

- **Veli-Pekka Kurunmäki**, Director of Firstbeat Sports Performance Products

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Garmin and Firstbeat – an introduction

GARMIN

- Founded in 1989 by **Gary** Burrell and **Min** Kao
- Started as a GPS company with focus on Marine & Aviation products
- Today: creating superior products for Automotive, Marine, Aviation, **Outdoor** and **Sports**
- More than 16.000 associates in 82 offices around the globe



To be the global leader in every market we serve, and our products will be sought after for their compelling design, superior quality, and best value.

Firstbeat Technologies

- Founded in **2002** in Jyväskylä, Finland.
 - Our story began 20 years ago with a breakthrough in a Finnish sports-science lab, when our founders successfully modelled human physiology using heart rate variability (HRV) data and mathematics.
- Today: bringing the power of science out of the laboratory and into the world of **corporate wellness** and **pro sports coaching**.
- Business in over 40 countries; over 70 employees in Finland, UK, Italy and USA.



Two decades of heart rate variability research enables millions of people to reach their health and performance potential with science-backed confidence.

The leading provider of physiological analytics for sports and well-being.

Setting up software and hardware

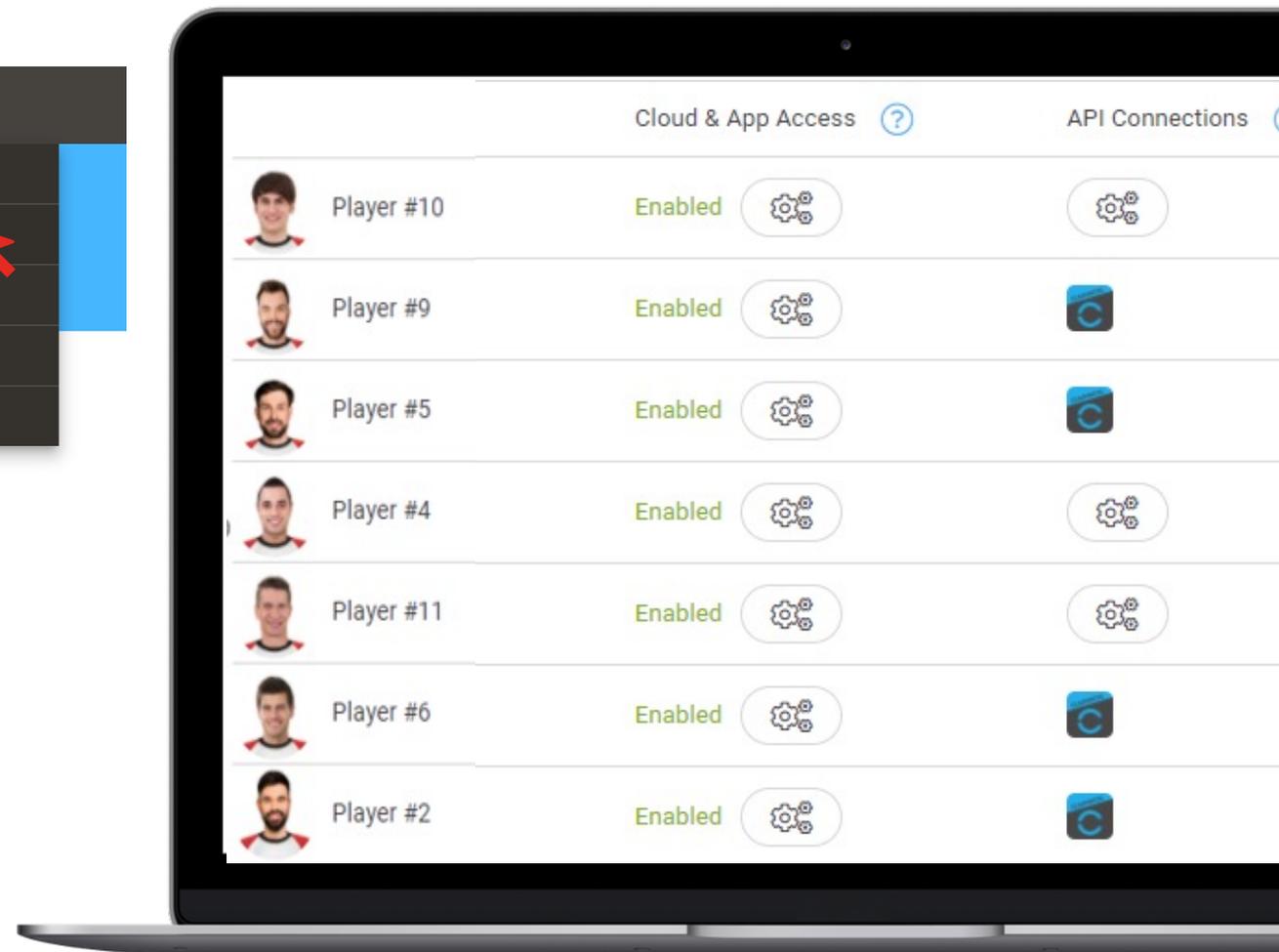
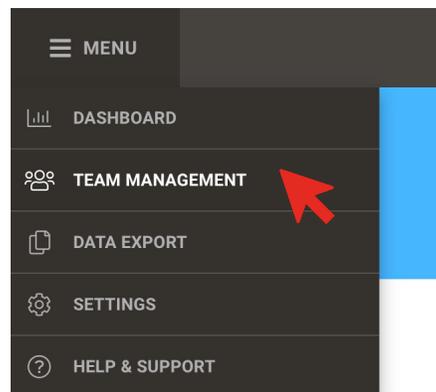
Setting up the Garmin API for your athletes

In Firstbeat Sports | Coach view

Coach activates Garmin API Connection for athletes in the Team Management view in the Firstbeat Sports Cloud.

1. Sign into your account and select Team Management in the top left corner
2. Go to API Connections and enable the connection by sending an activation link to chosen athlete.

→ Athlete receives email



Setting up the Garmin API for your athletes

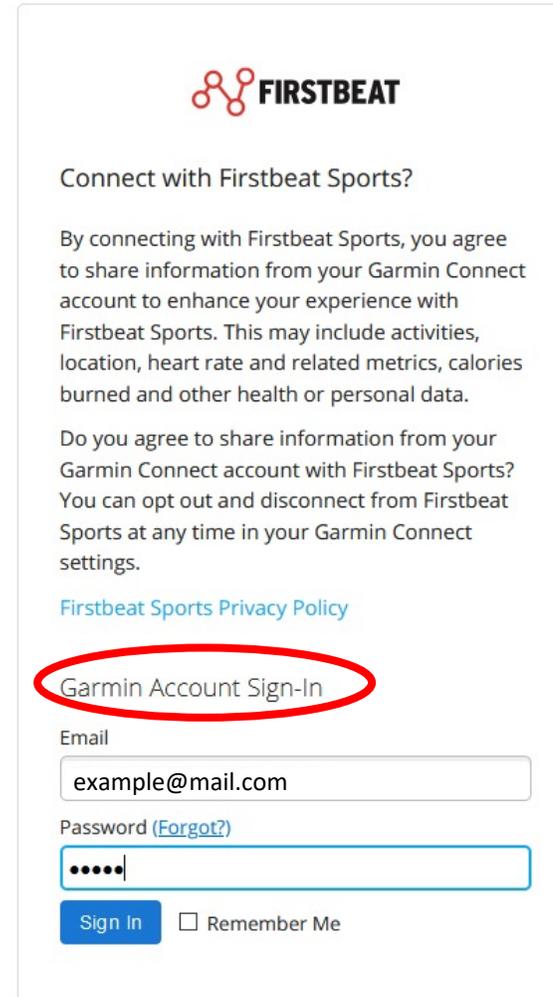
In Firstbeat Sports | Athlete view

Athlete opens link in email regarding Garmin Connect.

1. You will be prompted to a sign-in page
2. Create or sign-in with your Garmin Connect account
3. Agree to the terms of conditions
4. Your account has been connected successfully

→ Once Garmin Connect is connected with Firstbeat Sports, data will be synced automatically and are available to the coaching staff*.

*Athletes can access their own dashboard, app login, and personalized training reports as well.



The screenshot shows the Firstbeat Sports sign-in interface. At the top is the Firstbeat logo. Below it is the heading "Connect with Firstbeat Sports?". The main text explains that connecting allows sharing of Garmin Connect data (activities, location, heart rate, calories) to enhance the experience. It asks for agreement to share this information and provides a link to the "Firstbeat Sports Privacy Policy". The "Garmin Account Sign-In" option is highlighted with a red circle. Below this are input fields for "Email" (containing "example@mail.com") and "Password" (with a "Forgot?" link). At the bottom are "Sign In" and "Remember Me" checkboxes.

Pairing your Garmin device with Garmin Connect

Preparing your Garmin device

1. Go to settings menu (press Menu button for 2 sec)
2. Select "Phone"
3. Select "Pair Phone"
4. Device is now in pairing mode



In Garmin Connect Mobile

1. Go to menu (Apple: bottom right corner "More"; Android: 3 bars top left corner)
2. Select "Garmin Devices"
3. Select "Add Device"
4. Device will be recognized, select "Connect it"
5. Enter the code which will be displayed on your device in Garmin Connect
6. Select "Pair"
7. Set your individual preferences and sync your watch



Pairing your Firstbeat Sports Sensor with your Garmin device

Pairing your Firstbeat Sports Sensor

1. Go to settings menu (press Menu button for 2 sec)
2. Use the Up/Down Button to navigate to “Sensors & Accessories”
3. Select “Sensors & Accessories” with the right-sided upper button
4. Select “Add New”
5. Select “External Heart Rate” or “Search all Sensors”
6. Select your Firstbeat Sports Sensor*

! Once your Firstbeat Sports Sensor was successfully paired, it will connect automatically the next time you start an activity. The sensor needs to be active, worn on your chest and within the operating range.

* Sensors are displayed with their Sensor ID

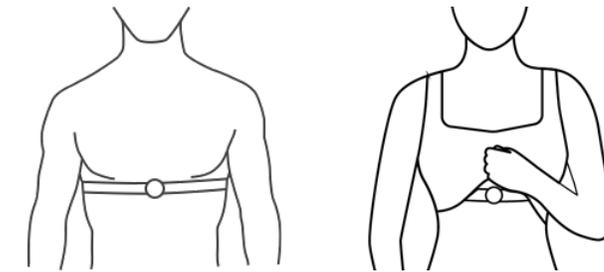
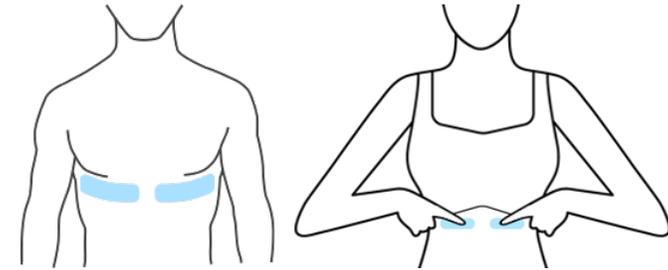


Recording a training session

Preparing the Firstbeat Sports Sensor for the recording

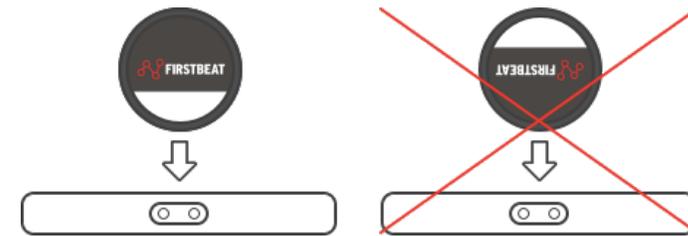
Before recording

1. Dampen the skin under the area the Sensor will be placed.
2. Attach the textile strap around your chest and adjust until securely in place.
3. Attach Sensor to the strap.



After recording

Take off the strap and detach the Sensor from strap. Removing the Sensor from the strap improves battery life and ensures R-R interval recording ends appropriately.



Starting the training on your Garmin wearable



Press **Start**



Navigate with **Up / Down**



Select your preferred **Sport App**



The heart icon indicates a paired **HR sensor**, the bar becomes green, indicating that your watch **acquired GPS** successfully.

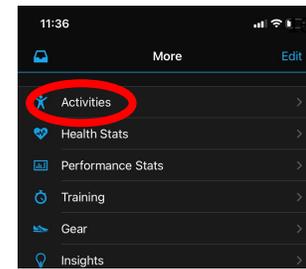


Press **Start** to start your training

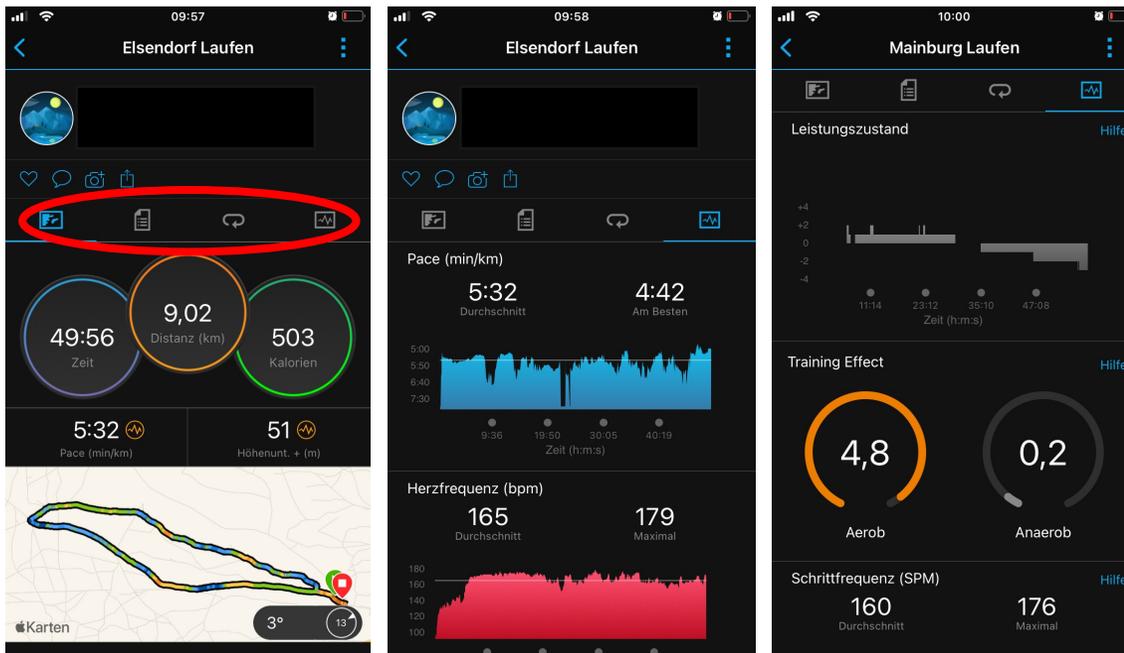
GARMIN.

Analyzing training data

Analyzing activity | Athlete view



To analyze your Training, select “Activity” in the menu and select the activity of interest. The first screen shows general information about what you have achieved (duration, distance, calories) and a map with your track.



For deep diving into your activity, you can select one of the icons in the middle of the page. The paper icon shows you all detailed information your watch was sampling during your training (HR, pace, elevation, etc.).

You did some intervals? Then go to the turn icon to compare in between intervals. Want to see your data in graphics and overlay them- then go to the graphic icon.

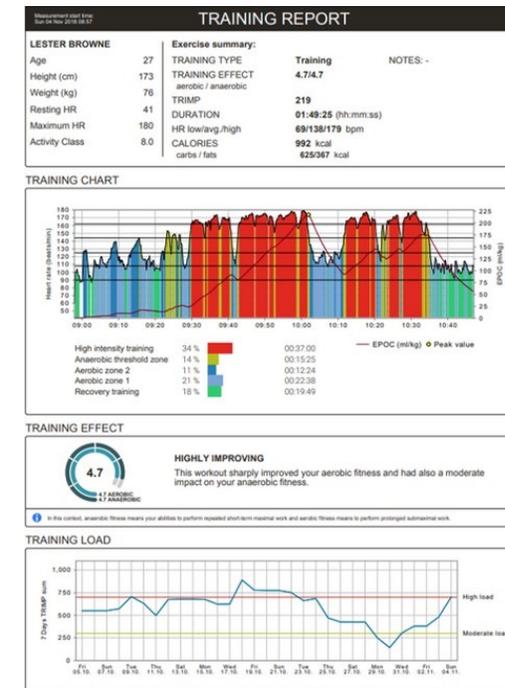
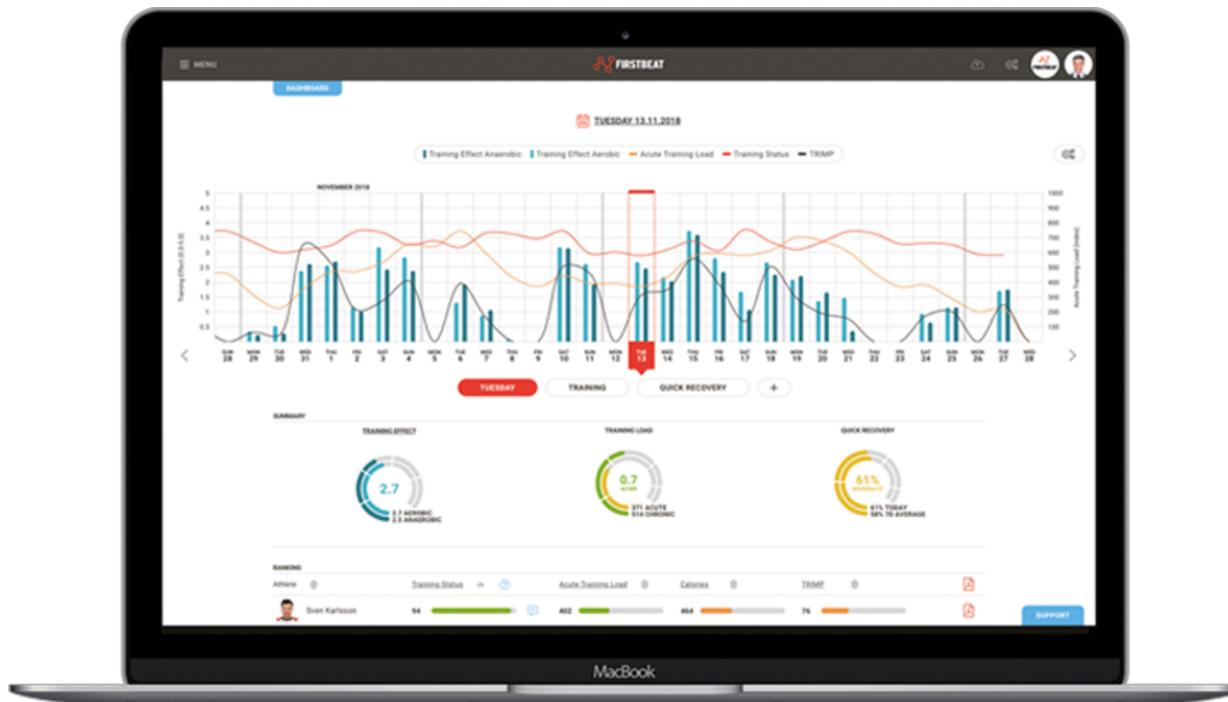
Moreover, Garmin devices provide feedback on what you have achieved during your training. When exercising your energy supply can be mainly aerobic or anaerobic. The Training Effect tells you, which effect your training had on one of these systems.

Analyzing training sessions | Coach view

Data management in the Firstbeat Sports solution: Training load and recovery insights on a single platform, incl. **automated reporting** (Individual training, group training and stress and recovery reports).

Dashboard: Access data anywhere on a secure, cloud-based platform; safe and current data.

Effortless reporting: Automatically view and send reports to individual athletes and authorized coaches immediately after your session.



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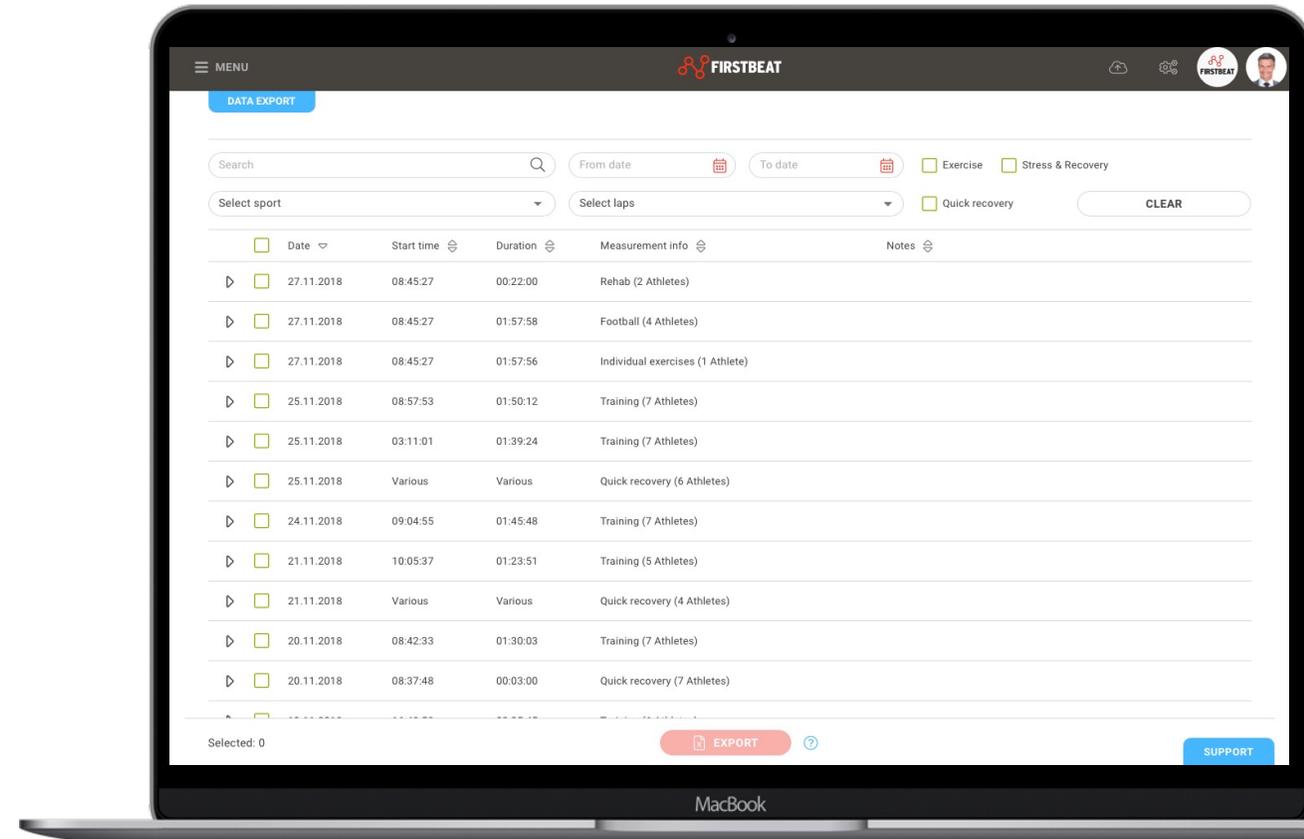
Analyzing training sessions | Coach view

Data export: Customized export template provides an in-depth look into 50+ variables regarding VO2 and HRV.

- Time in zones,
- Training Effect,
- EPOC,
- TRIMP, TRIMP/min,
- %HRmax,
- %VO2max,
- Acute training load, Chronic training load,
- Quick Recovery Test score,
- RMSSD
- ML, ML/min

Identify individual patterns, analyze specific periods within a session and season, and build your own training library

Compatible with: Excel, CoachmePlus, Kinduct



Core advantages

Core advantages



Group-level insights

Real-time and post-session analysis

- Real-time monitoring
- Track internal and external load
- Readiness and recovery data



Actionable insights

Put your knowledge to work with confidence

- Analyze data anywhere with Firstbeat Sports Dashboard
- Track stress, observe recovery
- Streamline workload via API partnerships



Individual-level insights

Collect and receive athlete data remotely

- Firstbeat Sports app for athletes
- Garmin integration
- Athlete buy-in

360-degree view | Work with confidence | Player engagement & education | Streamline coach workflow

Firstbeat Sports key metrics

Firstbeat Sports delivers the scientific insights you need to offer personalized training guidance.

We give you the physiological information to optimize performance, reduce injuries, and fast-track player development.



Heart rate
(bpm)



Acute
training load



Excess Post-Exercise
Oxygen Consumption



Training
Impulse



Stress and
recovery balance



Quick Recovery



Heart rate
(%HRmax)



Chronic
training load



Aerobic
Training Effect



TRIMP/min



Overnight
recovery



VO₂max
(ml/kg/min)



Time in
zones



Acute:Chronic
workload ratio



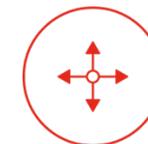
Anaerobic
Training Effect



Energy
Expenditure (kcal)



Sleep
time



Movement Load and
Movement Intensity

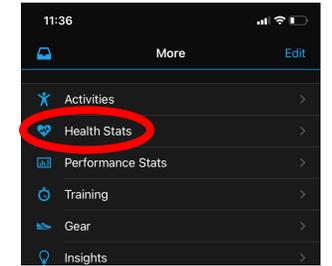


Lifestyle tracking
with Firstbeat BG2

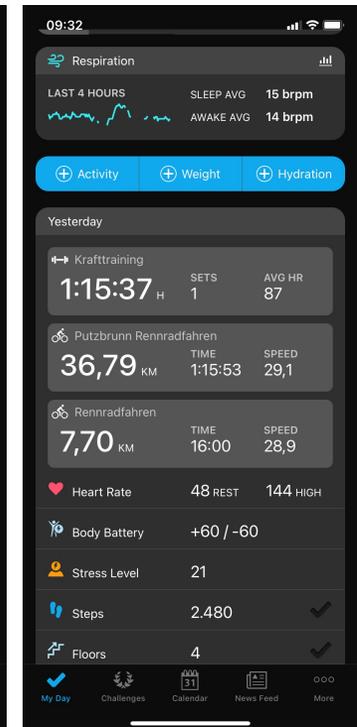
Additional features and metrics for your athletes

Analyzing your health / fitness tracker data

Fitness tracker / Health data can be easily analyzed in Garmin Connect Mobile.

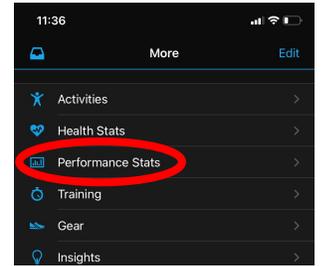


- HR
- Body Battery
- Stress
- Intensity Minutes
- Steps
- Floors
- Calories
- Sleep
- Pulse Ox*
- Respiration*



* Compatible watch mandatory

VO₂max



Purple	Superior
Blue	Excellent
Green	Good
Orange	Fair
Red	Poor

To maintain moving your muscles, your body needs oxygen. VO₂max is the maximum amount of oxygen your body can use at your maximal performance (= maximal oxygen consumption).

The more oxygen your body can use, the higher the performance. Hence VO₂max is a good indicator for your individual aerobic performance.

To compare in between athletes, the VO₂max value is displayed relatively to your body weight in ml/min/kg.

When exercising regularly your VO₂max will increase, when resting too much it will decrease – use it or loose it. Your Garmin device tracks your VO₂max and helps that you stay focused within your training.

Body Battery



Body Battery (0-100) measures the amount of energy reserves you have throughout the day.

- Higher numbers means you're charged up for activity; a lower number means your battery is drained and you might need a break.
- Rest and good sleep charge your Body Battery. Strenuous activity, high stress and poor sleep can cause it to drain.
- Food intake or stimulants like caffeine, do not directly impact the measurement.
- Wearing your device continuously day and night will lead to more accurate Body Battery readings.

Sleep



Your watch will detect the sleep stages while sleeping, differentiating between “Deep”, “Light”, “Awake” and “REM”. The latter, Rapid Eye Movement, is accompanied with increased HR, blood pressure and brain activity.

Oxygen saturation will also be measured during sleep from your watch. Normal SpO_2 values are between 90 – 100%. Values below may indicate hypoxia.

The Respiration Rate indicates, the amount of breaths you take every minute. During sleep, this value is very consistent. Hence abnormal values can indicate that you had a bad sleep.

Thank you

For information about **Firstbeat Sports** visit www.firstbeat.com/sports

→ Want to know more about Firstbeat Sports Analytics? Click [here](#).

For more information about **Garmin** visit www.garmin.com

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