



Using HRV for Improved Sports Performance

In competitive sports, improved performance is often achieved by alternating periods of intensive training with periods of relative rest. This is because after the body has been exposed to a stressful situation, providing that adequate recovery has taken place, it will adapt and become stronger. The alternating periods of intensive training and rest help an athlete avoid physical fatigue caused by over training.

To better understand this, consider the function of the autonomic nervous system (ANS). The ANS has two branches, the sympathetic and parasympathetic. The sympathetic branch increases heart rate, blood pressure, cardiac output and a diversion of blood flow to the muscles. The parasympathetic branch decreases heart rate, lowers blood pressure and generally creates an environment for the body to repair itself. Not surprising the parasympathetic branch is very active during restful sleep.

Heart Rate Variability, or HRV, is in essence a view into the ANS. By measuring your HRV, you can detect when the sympathetic branch is in overdrive and inhibiting the recovery and repair capabilities of the parasympathetic branch. Overtraining can create a sustained imbalance between the two branches of the ANS and can lead to a multitude of unwanted side effects.

Using SweetBeat For HRV Training Optimization

1. Record Baseline

While not absolutely necessary, a baseline should be established in order to compare your rested HRV with you HRV affected by training. The baseline should be recorded after several days of rest or low exertion exercise.

- Start the SweetBeat app
- Go to Settings by pressing the settings button in the bottom menu tab
- Select Application settings
- Scroll down to baseline and select
- Select Record New Baseline
- The Record Baseline screen will open.

While clinical studies show that a 3-5 minute reading gives accurate HRV, you may stop the baseline recording any time after 90 seconds. SweetWater Health recommends the full 5 minutes with a minimum 3 minute reading.

Important Note: For best results, whatever time you choose for the baseline should be the same amount of time you do your daily HRV measurements. So if you choose a 3 minute baseline then your daily measurements should also be 3 minutes.

- Start your baseline recording by pressing the Start button
- Breathe with the breath pacer
- Press Stop if you choose a measurement time less than 5 minutes
 - If you do a 5 minute baseline, it will stop automatically
- The Save and Upload screen will open
- Tag the session "HRV Baseline"
- Press Save to save and upload your HRV Baseline session

2. Record and Track Daily HRV

Preferably at the same time each day (most take their reading in the morning) take a 5-minute HRV session.

- Start SweetBeat by pressing the Start button
- Press the Stop button to end the session
- Enter your session tag starting with Exercise
- Save and upload session

3. If HRV drops significantly (more than 10 points) a low exertion or rest day is in order.