



# Stress, Sleep & Morning Readiness

## Stress Monitoring

According to Harvard medical center and other prestigious medical centers, stress is responsible for more than 90% of ALL diseases. Not only is stress responsible for illness, it contributes to anxiety, depression, irritability, weight gain and poor sleep.

Most people are completely unaware that they are in a state of chronic stress. The reason for this is that the brain is a giant filter and will filter out anything that is familiar, even if it is dysfunctional. The first step to reducing stress is to measure it with [SweetBeatHRV](#) and [DailyBeatHRV](#).

Stress is a major factor in Sleep Quality and Morning Readiness so be sure to include stress monitoring in your routine!

There are a few ways to understand you stress levels:

- Do a 3 – 5 minute reading while you are relaxed. Do this a few times a week for a few months to monitor the efficacy of your stress reduction program.
- Do longer readings and measure stress in real-time. You can wear one of our [supported chest straps](#) and do readings up to 8 hours.

## Our Nervous System and Sleep

The Autonomic Nervous System (ANS) is part of the information highway of your body and is a subset of the Central Nervous system. Throughout your busy day, your ANS moves through many ups and downs and is generally in a depleted state by the time you are climbing into bed. In addition, athletic training and emotional turmoil take their toll on your nervous system, resulting in lower HRV at night.

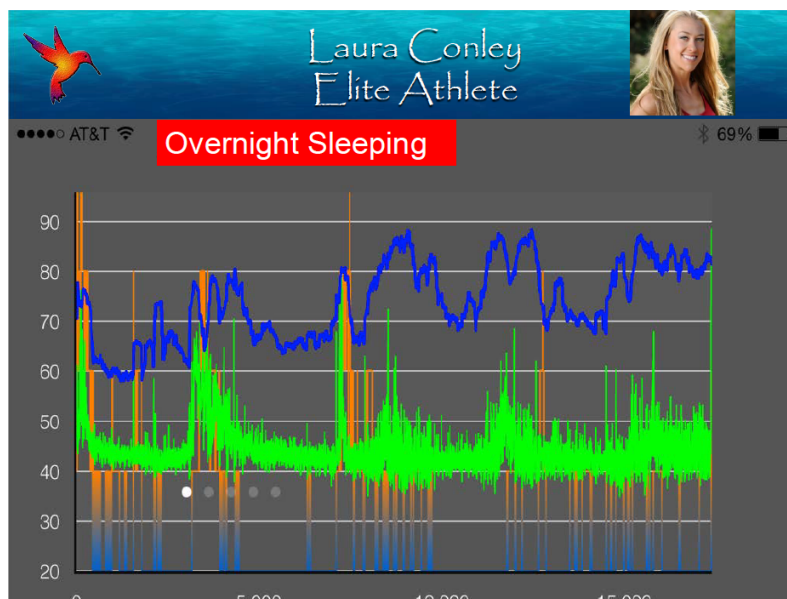
While sleep stage tracking has gained popularity in recent years, seeing your sleep stage does not represent actual restorative sleep. In addition, the best and most accurate sleep stage tracking requires an EEG to monitor brain waves. While wearable fitness trackers do an OK job, they are still estimates compared to an EEG.



## HRV and Sleep

Research shows that HRV is an accurate way to measure restorative sleep. During deep, slow-wave sleep, the body rests, repairs, and rejuvenates, which is accompanied by higher HRV and a slower heart rate. HRV also increases during REM sleep and the totality of good deep and REM sleep result in a higher (higher than the night before) HRV in the morning.

This is easy to track with SweetBeatHRV. Simply do a 3 minute session before you turn the lights out, then do a 3 minute session when you wake in the morning. Another option is to sleep with a chest strap on and run SweetBeatHRV the entire night. As you can see below, Laura Conley measured a more than 25% improvement in her HRV after a restorative night's sleep. The blue line in the graph is her HRV and the green line is her heart rate. Note that she is an elite athlete so please do not compare your numbers to hers! The goal is to see a % increase though with regular good sleep, you will like see an improvement in your overall HRV values.





## Morning Readiness

What is morning readiness? Depending on your goals it can be used for:

- Athletic Recovery – HRV for Training
- Willpower Score
- General Morning Readiness

## HRV for Training

While standardized training programs produce well documented results, they do not take individual responses into account. Age, gender, race, baseline fitness level, and genetic factors are known determinants of individual differences in responses to endurance training. In addition, the status of the nervous system plays an important role in training response.

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Heart Rate Variability (HRV) is a view into the nervous system and can be used to guide an optimal training program. For a deeper dive please see our [HRV for Training Brief](#), [HRV for Training Guide](#) and our [Library](#) which includes links to podcasts and more!



## Willpower Score

# willpower *noun*

 /'wɪlpaʊə(r)/

 /'wɪlpaʊər/

[uncountable]

★ the ability to control your thoughts and actions in order to achieve what you want to do

- *He's intelligent but he's got no willpower.*

According to Oxford dictionary, Willpower is the ability to control yourself! Most people don't think much about it until a decision has been made to create new habits. Some days Willpower is in abundance, and other days is missing in action. According to research by psychologist Suzanne Segerstorm, we have a willpower "bucket" that can be full or empty to various degrees. In addition this bucket can be measured by, you guessed it, HRV!

A common theme for people trying to create (or remove) habits is that they do Great Monday – Wednesday then blow it on Thursday. They beat themselves up and continue to blow it with the justification that they will "start again on Monday". [DailyBeatHRV](#) provides a daily Willpower score so that you can plan your day. If you have a low score any given day, you can take actions not to fall backwards and if you do fall, don't beat yourself up and don't keep blowing it until a reset on Monday.

Willpower is such a popular topic that Stanford University Professor Kelly McGonigal wrote a book and taught a very popular class on the subject. To learn more read our brief on [Heart Rate Variability and Willpower](#), and start measuring your Willpower today!



## General Morning Readiness

While the Willpower score is invaluable, General Morning Readiness is extremely useful. [DailyBeatHRV](#) will provide your Willpower score and in addition will analyze various aspects of your HRV and make recommendations on how to plan your day. The Stress/HRV score, Resilience, Power and Balance screens give you the information to have each day be a successful day!