

Using HRV for Improved Sports Performance

Most athletes know that getting enough rest after exercise is essential to high-level performance, but many still over train and feel guilty when they take a day off. The body repairs and strengthens itself in the time between workouts, and continuous training can actually weaken the strongest athletes. In competitive sports, improved performance is achieved by alternating periods of intensive training with periods of relative rest. Rest is physically necessary so that the muscles can repair, rebuild and strengthen. For recreational athletes, building in rest days can help maintain a better balance between home, work and fitness goals.

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.

Heart Rate Variability (HRV) is a view into the nervous system and can be used to guide an optimal training program. Never heard of the term? You are not alone. Measuring HRV, though long used in hospitals for treating heart patients, is a relatively new biofeedback concept for endurance athletes. Soviet Union sports scientists started keeping track of their elite athletes' HRV in the '70s. In the past decade, college sports teams and world-class athletes have been increasingly using HRV to monitor fatigue and recovery from workouts. There are numerous [clinical studies](#) on HRV and training.

The introduction of athletic heart rate monitors that communicate with smart phones has enabled HRV monitoring capability to anyone who has a smart phone and wants to use it to guide training.

[SweetBeat is an iPhone app](#) by [SweetWater Health](#) that has custom capability for athletes to track their HRV. The athlete simply does a 3 minute HRV session each morning and is presented with a result that recommends “train as usual”, “low exertion day” or “rest day” based on the individual’s baseline trend. For more information, please visit the SweetWater Health [Library](#) and be sure to listen to the [Ben Greenfield podcast](#) on HRV.

