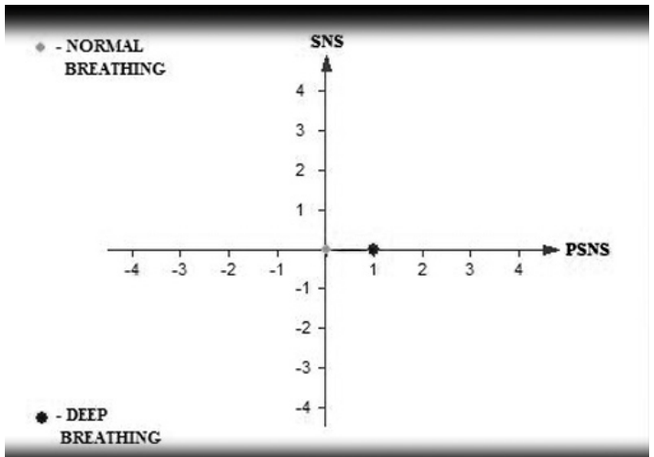

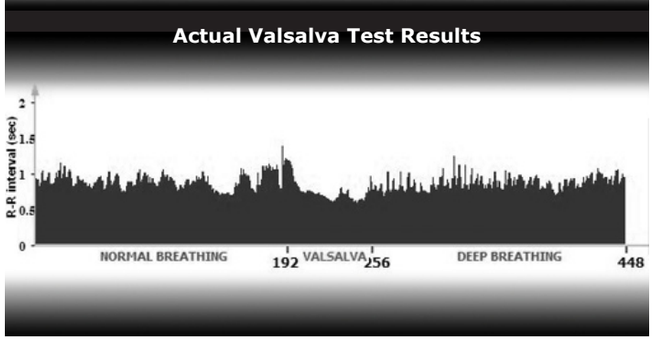

This Nerve-Express method offers a wide variety of testing options, and is incredibly useful in many different clinical settings.

2. The Health Express is a method used for assessment of the general state of health, like the levels of Physical Fitness, Wellness and Functional Capacity of our clients.

   This assessment is also based on the "Orthostatic Test" as a test modality, but the main difference is that the Health Express takes into account the "Transition Period" of the test, while the Nerve-Express does not.

The Nerve-Express System includes both methods of analysis, but since the Nerve-Express method is more commonly used in medical offices and offers a wider array of test modalities, the whole system became traditionally known under the name "Nerve-Express".

Real-Time Nerve Monitor Testing

Nerve-Monitor enables ANS assessment in a "real-time" mode, which means that the data is analyzed as it is put in. Results can then be produced with certain periodicity. Calculations can be done every 2 – 4 minutes, and then can be viewed in even smaller units.

Additional information, such as heart rate, tension index and analysis of extra-systolic beats can be obtained simultaneously with the autonomic tone at every stage.

In spite of the simplicity of a "real-time" mode, it is essentially universal, since it enables the automatic ANS response assessment during different kinds of therapy.

It can be used to monitor long-term care as well as instantaneous responses to treatment. Meanwhile, some of the most important applications are intensive-care and anesthesia monitoring. It is also very important in the field of Sleep Disorders and Nocturnal Para-function. Besides these, also of great interest are experiments with identifying allergic agents, as in the case of asthma or chronic infections and inflammation.

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DOROTHEO Dental and Diagnostic Center

Dr. Marvin F. Dorotheo

- Orthodontics
- Oral Surgery
- Implantology
- TMJ-Orthopedics
- Cosmetic Dentistry
- Nutrition
- Dental Sleep Medicine (Snoring and Sleep Apnea Management)
- Sleep Study thru HRV
- Orthodontic Diagnostics Aides and X-Ray Services

Heart Rate Variability

(Autonomic Nervous System Test)

Dedicated in pursuing exceptional health care, the Dorotheo Dental and Diagnostic Center provides you with a sophisticated and reliable computerized diagnostic system that has been proven to address the physiologic basis of sleep disorders and structural distortions: the Heart Rate Variability (HRV) or Autonomic Nervous System Test. Strengthening the Center's expertise in the field of STRUCTURAL MANAGEMENT (TMJ or Temporo-Mandibular Joint Dysfunction, Chirodontics, and Snoring and Sleep Apnea Management), this specialized service guarantees to provide you with a healthy and beautiful smile that really works!

Understanding the Autonomics and Heart Rate Variability

Heart Rate Variability refers to the beat to beat alterations in heart rate. These beats tell us how our Autonomic Nervous System (ANS) controls our body functioning. The ANS is the part of the nervous system that we cannot control with our mind. It regulates breathing, heart rate, digestion, immune function, sleep patterns, hormone regulation, blood pressure, blood sugar level, tissue regeneration and liver and kidney detoxification.

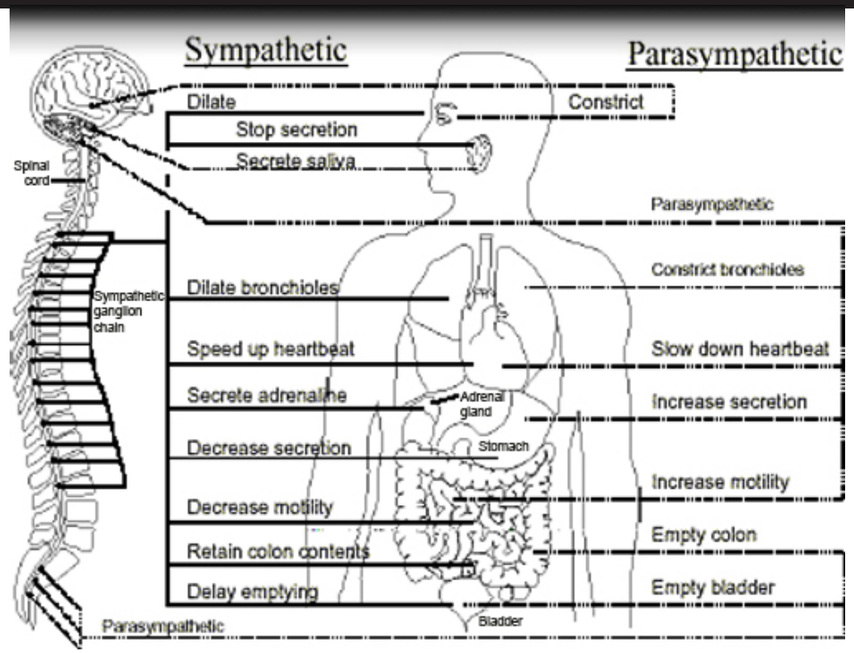
We need to understand the importance of the ANS and its role in our general health, as well as in our ability to handle stress and injury. We also need to look at the two parts of the ANS, namely the Sympathetic Nervous System (SNS) and the Parasympathetic Nervous System (PSNS).

The main physiologic meaning of the Sympathetic Nervous System is that it could be viewed as a "mobilizing" or "energy-boosting" division of the ANS. The SNS, meanwhile, is concerned primarily with preparing the body for energy-expending, stressful or emergency situations. It controls the "fight or flight" reactions, increasing the blood pressure, heart rate, and blood flow to the muscles, and is critical for meeting demands.

As we get older, our adrenalin decreases and Cortisol increases, then both drop. Conversely, the main physiological meaning of the Parasympathetic Nervous System is that it could be viewed as a "restful" or "energy-conserving" division of the ANS.

The PSNS, on the other hand, is most active under ordinary, restful conditions. It also counterbalances the effects of the sympathetic division, and restores the body to a resting state following a stressful experience, and is critical for healing and proper sleep patterns.

In response to various internal and external processes and stimuli, an individual experiences a continuous interplay between these two main ANS systems, constantly trying to balance each other out. For example, during an emergency, the SNS will increase the heart and breathing rates to meet the demand.



Following the emergency, the PSNS will decrease these activities to allow the body to rest and heal.

The problem in dealing with these systems "clinically" has been the issue of how to effectively determine the status of the ANS. In the past, we were often taught that these two systems were operating in diametric opposition, meaning if the SNS activity went up, then the PSNS activity went down.

Current research has shown that this is not true. And now we have an easy, cost effective method of determining the ANS status, anytime, anywhere, and rechecking whenever we need to.

The Nerve-Express System

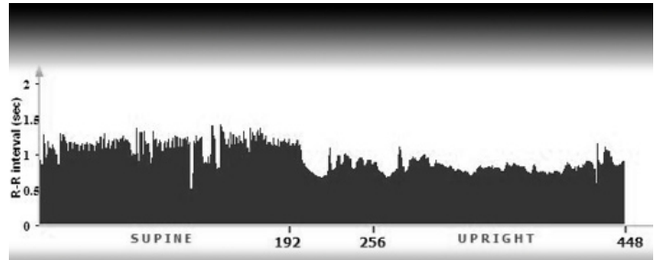
The Nerve-Express is a fully automatic, non-invasive computer based system designed for quantitative assessment of the Autonomic Nervous System (ANS) and general state of health based on Heart Rate Variability (HRV) analysis. It is the first and only system available for practitioners and researchers in this field.

The Nerve-Express System uses two methods of assessment based on different types of HRV analysis; the Nerve-Express and the Health-Express analysis.

1. The Nerve-Express is a method of quantitative assessment of the Autonomic Nervous System (ANS) specifically, hence the term "Nerve Express".

   The Nerve-Express uses 3 different test modalities for the ANS assessment:

   - Orthostatic Test
   - Valsalva Maneuver, combined with Deep Breathing
   - Real Time Monitoring



Actual HRV Orthostatic Test Results