

Welcome!

Individualized Medicine and Therapies is purposed to bring light to physicians, researchers, patients, and patients' loved ones whose diagnoses and measurements are unique to the individual patient and those treatments and therapies that may help to return the individual patient not only health but to wellness. We believe wellness includes reduced morbidity and mortality risks, reduced medication-load, reduced hospitalizations and re-hospitalizations, all the while improving quality of life and productivity.

The Parasympathetic and Sympathetic (P&S) branches of the Autonomic nervous system have been characterized as an individual's "physiologic fingerprint." The P&S collectively controls every organ and organ system in the body, and virtually every cell within the human body, including the immune system. In fact, it provides the memory for the immune system, furthering the uniqueness to the individual. Health and wellness are established with a proper P&S balance at rest and proper P&S responses to challenge. While there are only a relative few P&S measurements, they apply to all situations. We have only one P&S system, but it must address all of our conditions, healthy or unhealthy. While this appears to generalize the P&S responses, and it does, when added to the patient's history, symptomatology, lifestyle, and medication load it becomes individualized. Information from P&S monitoring added to a patient's history, medication load, lifestyle, and symptomatology help to further specify a patient's therapy plan. This plan may initially increase medication load, but usually decreases it as proper P&S balance and responses are re-established. Once re-established, the P&S nervous system "remembers" and is able to maintain that condition and carry forward until some new clinical event occurs.

This volume highlights one of the more challenging disorders for P&S monitoring and therapy: Hypermobility. Hypermobility, including Ehlers-Danlos Syndrome and Joint Hypermobility Spectrum, has unfortunately been largely unknown and therefore largely untreated. This is in part due to the fact that there is, as of yet, no known cure. Fortunately, however, all but one of its forms is known to be non-life threatening, only quality-of-life threatening. As we have found, proper P&S balance and P&S response to challenge helps to restore quality of life. This is similar to many other conditions. The challenge is two-fold. First, while we may be able to restore proper P&S balance and challenge responses, the next clinical event may only be minutes away, due to the patient's connective tissue's inability to provide a solid barrier between the self and the outside world. The clinical event is another infection that keeps the immune system on heightened alert, which forces the Parasympathetics to remain active to the point of over-activity. This may cause Sympathetic over-activity, which when persistently destabilizes the P&S systems and leads to improper control of the body and its systems.

Second, many patients have seen many other physicians and even psychiatrists over the years before seeing a P&S specialist. The problem with that is that often times these patients have been desensitized to the very low-dose medications needed to effect a proper P&S balance and challenge response. As a result, alternative therapies and lifestyles are required to treat these patients. Being forced into this mode of thinking has helped us to discover that most P&S dysfunctions, also known as Dysautonomias, may be treated with alternative therapies and that pharmaceutical therapies typically serve to augment the alternative therapies and accelerate the

recovery process. Once recovered, the pharmaceutical therapies are often discontinued and lower-dose alternative therapies are sufficient to carry the patient forward in health and wellness.

Application of P&S monitoring and therapy to Hypermobility is the first section of this inaugural volume. Another, more recent application of P&S monitoring is with heart failure patients. Last, we include current events: COVID-19 and Long-COVID Syndrome. We consider the disease itself, its after-effects, and some of the issues surrounding it, including its vaccine.

Enjoy!

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OUTLINE

Hypermobility Reviews

1. Hypermobility: An autonomic conundrum like diabetes. Vinik AI, DePace NL, and Colombo J
A Review of Dr. Vinik's life work: "If you know all of Diabetes you know all of medicine." Hypermobility (EDS) is the "new Diabetes," in the sense that "If you know all of Hypermobility you know all of medicine." This review article is a passing of the baton. A review Dr. Aaron I. Vinik's life work in Diabetes from Ewing and DAN and Zeigler and ALA, to Colombo and P&S. Let us learn from this life's work!
2. Ehlers-Danlos syndrome and autonomic dysregulation: "The invisible woman has significant pathology and morbidity." DePace NL, and Colombo J
Dr. DePace Reviews Hypermobility from an Autonomic and Cardiology point of view.
3. Ehlers Danlos syndrome and hypermobility: A rheumatologist's perspective. Soloway S and Soloway Am
Dr. Soloway Reviews Hypermobility from a Rheumatology point of view.

Hypermobility Original Research

4. Hypermobility/Ehlers-Danlos syndrome and the parasympathetic and sympathetic nervous systems. DePace NL, Acosta CR, DePace Jr. NL, Kaczmariski K, Goldis M, Colombo J.
5. Hypermobility and Ehlers-Danlos syndrome symptoms are explained by abnormal sympathetic responses to head-up postural change. DePace NL, Acosta CR, DePace Jr. NL, Kaczmariski K, Goldis M, Colombo J.
6. Abnormal parasympathetic responses to stress exacerbate hypermobility and ehlers-danlos syndrome symptoms. DePace NL, Acosta CR, DePace Jr. NL, Kaczmariski K, Goldis M, Colombo J.

Heart Failure Review

7. Review: The critical deleterious cardiac effects of the sympathetic nervous system in congestive heart failure and a novel new therapeutic approach for correction. Murray GL and Colombo J.

Heart Failure Original Research

8. Prolonged, untreated autonomic dysfunction may ultimately lead to heart failure. DePace NL, Murray GL, Giliotti-Bateman JA, Bulgarelli RA, Colombo J.

Therapies

9. Oral vasoactive medications: A review of midodrine, droxidopa and pseudoephedrine. DePace NL, Vinik AI, Acosta C, and Colombo J

Current Events - COVID

10. COVID-19 reminds us how vital knowledge and treatment of patients' autonomic nervous system abnormalities are in cardiovascular disease. Murray GL and Colombo J.
11. Coronavirus induces oxidative stress leading to autonomic dysfunction often with delayed symptom onset. Bloom HL, Colombo J.