

From Skin to Brain: The Science of Biowin.



OPTIMAL NEUROLOGY & YOUR HEALTH

The human body functions at optimum efficiency when the networks managing our body and mind are in balance.

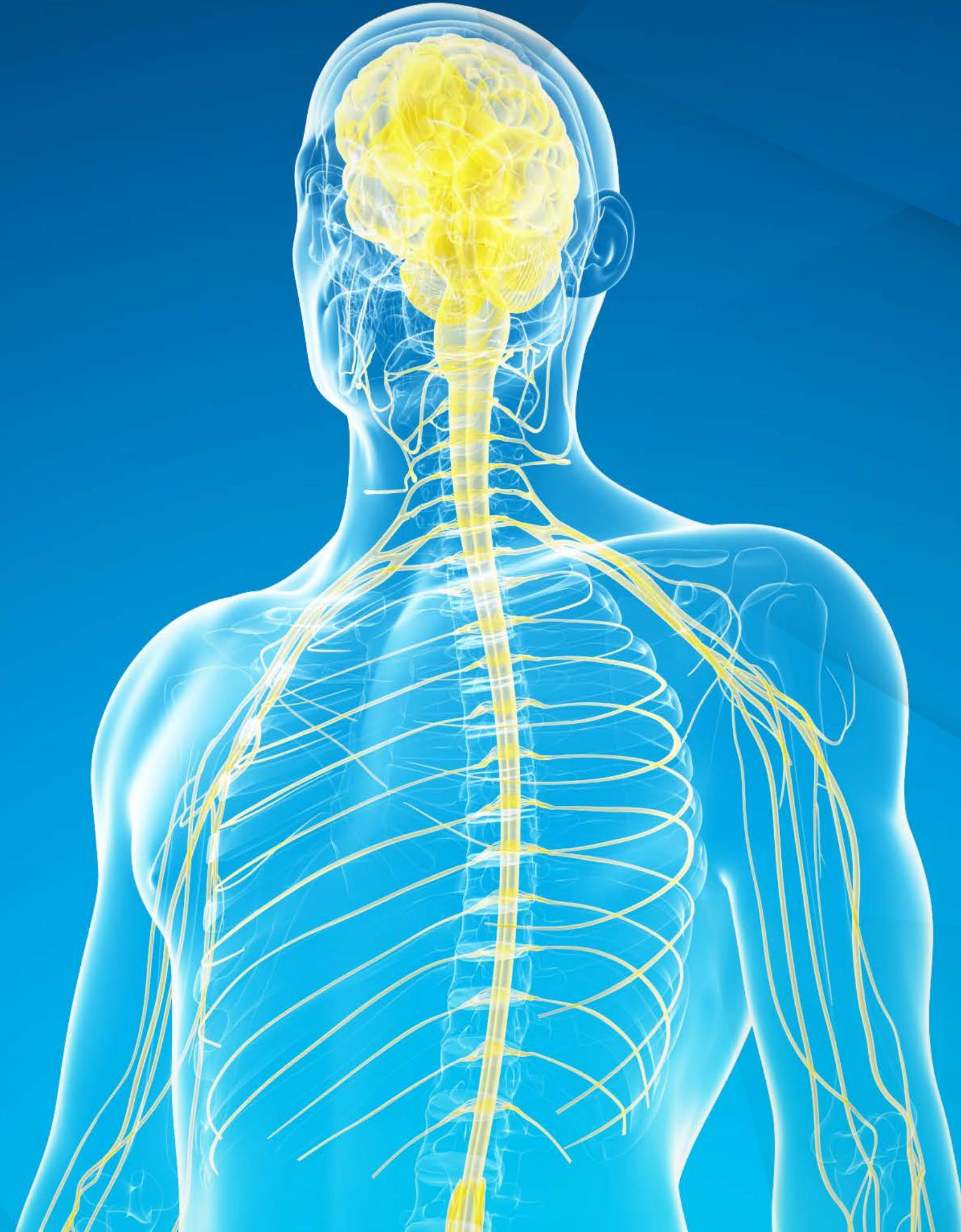
The autonomic system is part of the peripheral nervous system, responsible for regulating the involuntary body functions.

This integrated communication structure regulates a variety of body processes that take place without conscious effort.

Genetics, injury, illness, drugs, stress, and other trauma factors compromise this system. Misalignments within the communication network can trigger dysregulations and how our neuro network manages these functions.

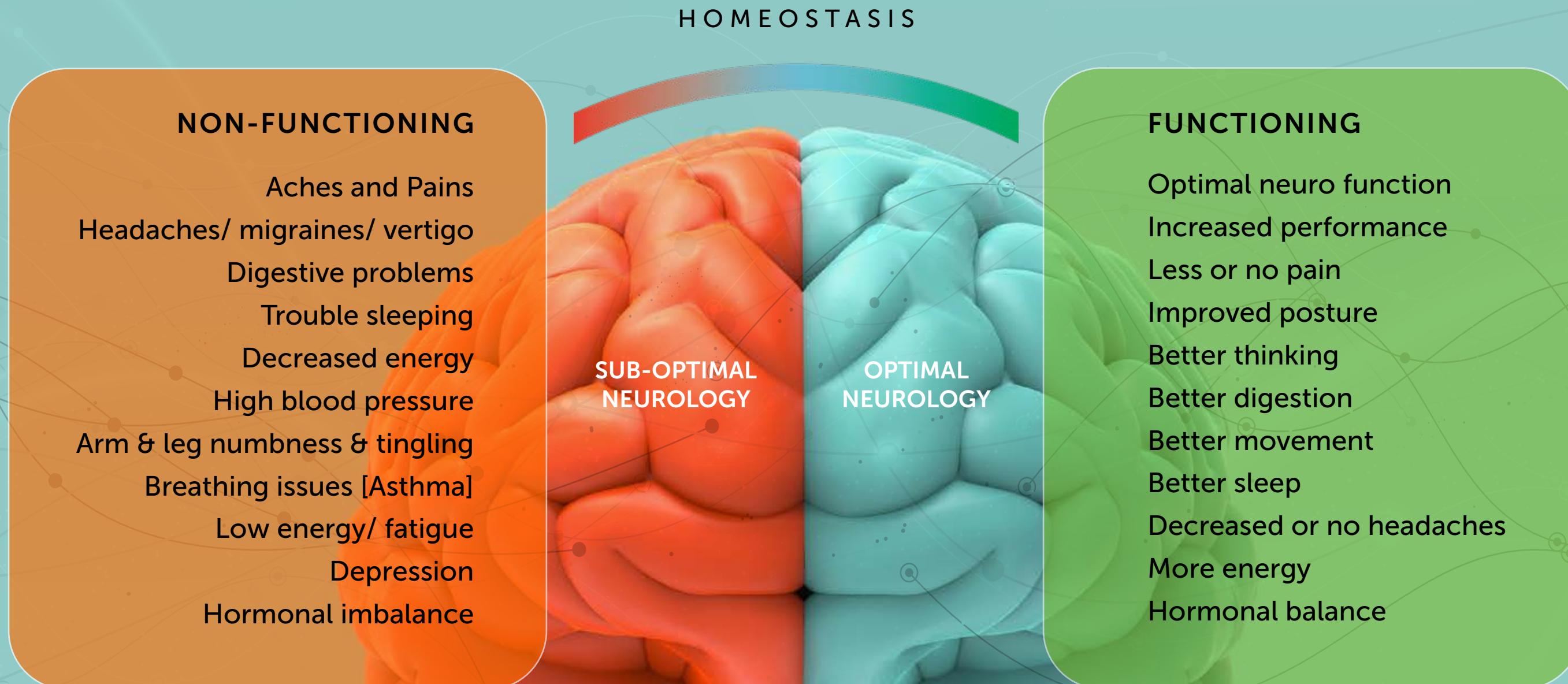


FOR MORE INFO,
REFER TO REFERENCE 1



HOW DOES YOUR NEUROLOGY IMPACT YOUR HEALTH?

OPTIMAL NEUROLOGY = OPTIMAL FUNCTION



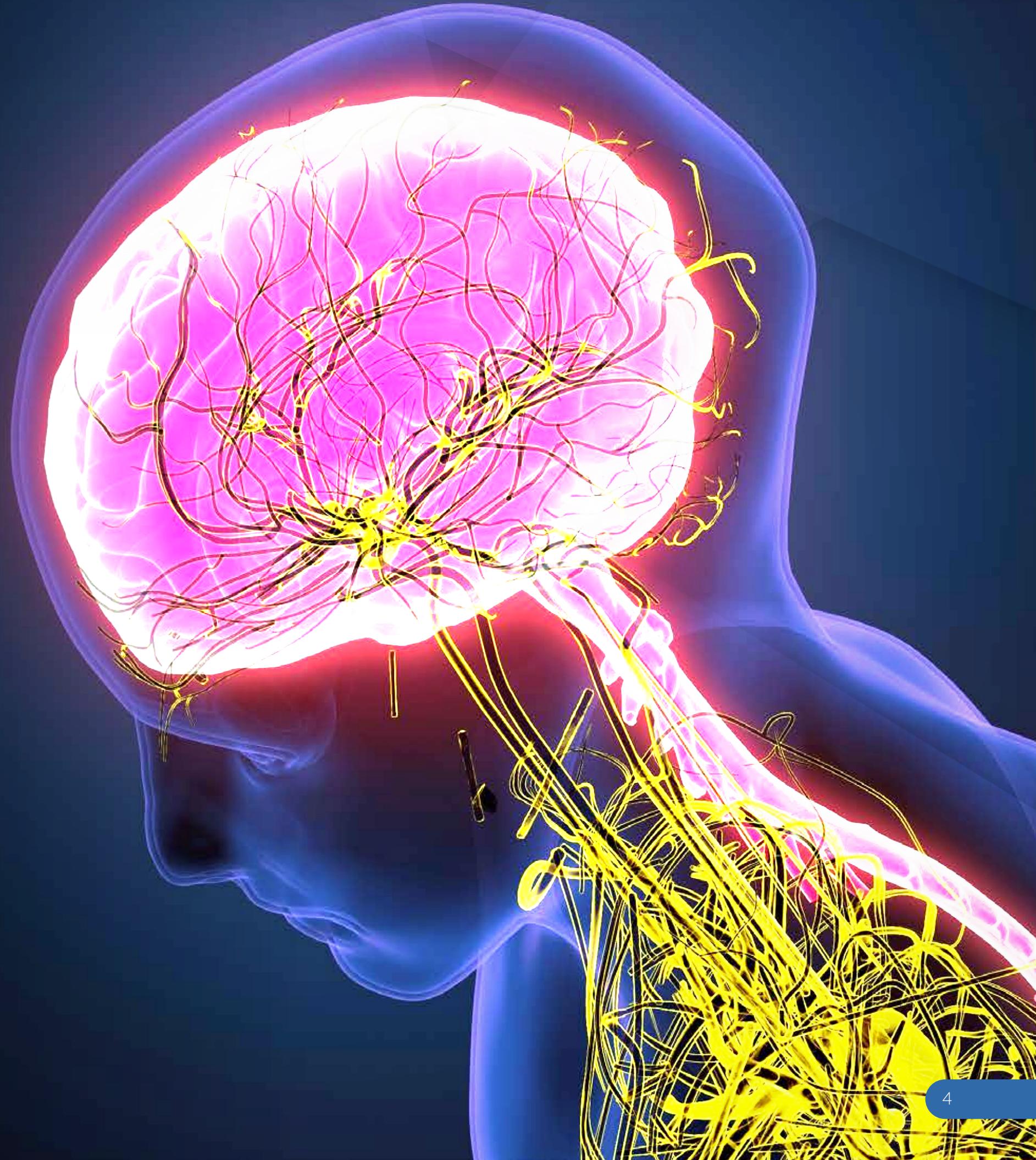
FOR MORE INFO,
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A UNIQUE APPROACH TO A COMMON PROBLEM

Our solution proposition is based on the premise that maintaining optimal neurology is the foundation to achieving and maintaining optimal health.

The Path to a Solution:

- What is Optimal Neurology?
- How to identify it?
- How to measure it?
- How to help it?



MEASURING OPTIMAL NEUROLOGY

The Global Standard for normative EEG is the LORETA database with The University of Zurich. With a database of over 200,000 EEG readings, it is recognized as the comprehensive database of available research for comparative EEG analysis.

LORETA DATABASE(Low Resolution Brain Electromagnetic)-An EEG-based neuro imagining technique that converts neuronal activity to represent the structure and function of the brain.

It is the backbone of clinical EEG studies and biofeedback research.

Biowin started its research journey and investigation of the LORETA DATABASE in 2010.



FOR MORE INFO,
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OUR APPROACH AND UNDERSTANDING

Between 2010 and 2013, Biowin developed proprietary algorithmic analysis tools and filters leveraging Fourier Transforms and other mathematical constructs to analyze over 100,000 EEG sets in the LORETA Database.

This approach and development process revealed two remarkable understandings and proprietary breakthroughs.



FOR MORE INFO,
REFER TO REFERENCES 10-12



THE FIRST BREAKTHROUGH TO A SOLUTION

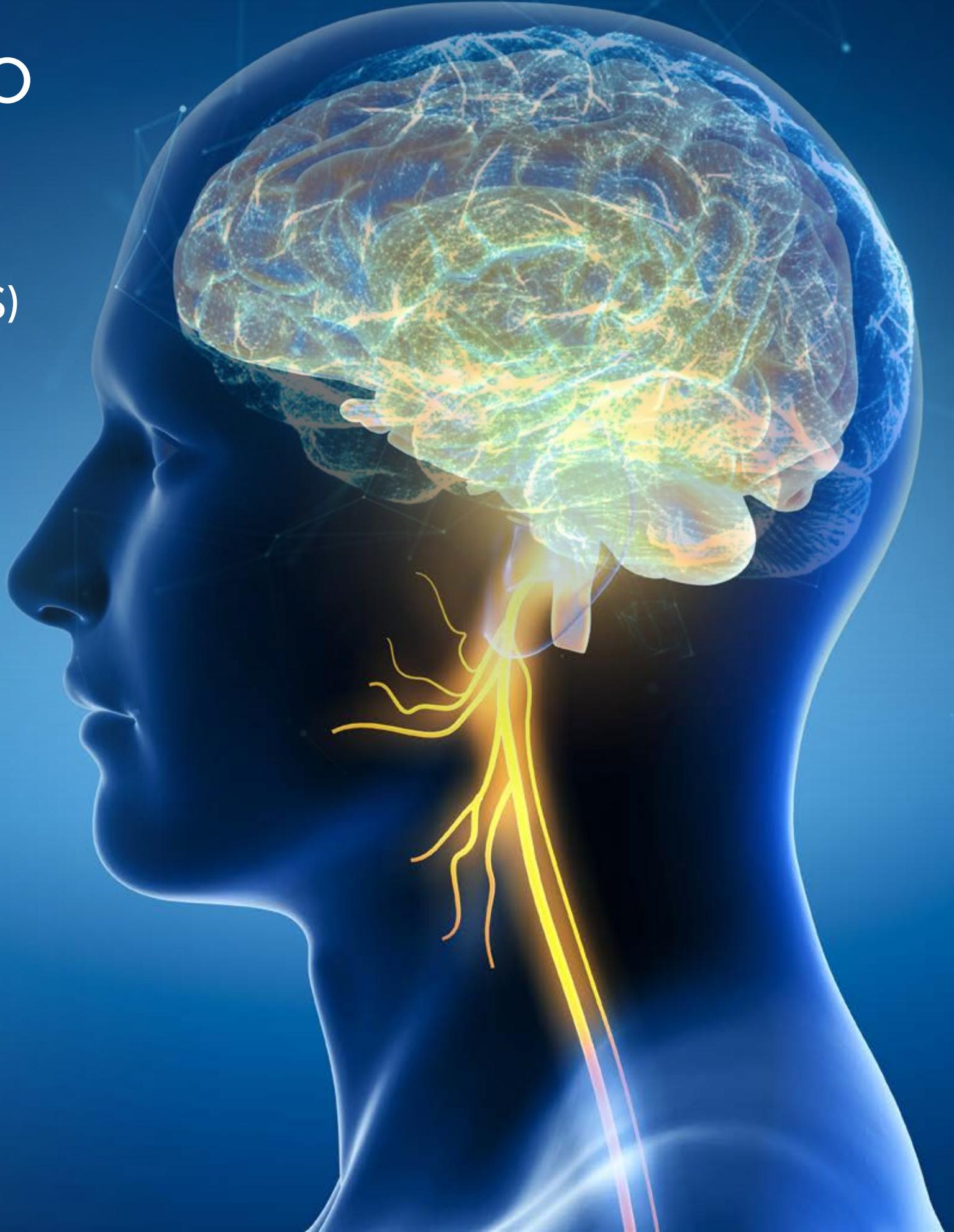
1. NEURO DEVELOPMENT SEQUENCE (NDS)

The development of the human brain and its processes from the neural groove to adulthood is an innate process. It can be compromised by genetics, injury, illness, drugs, stress and other factors leading to neurological and physical challenges.

At Biowin we have decoded this sequence as a set of complex neuro signals.

In 2013, Biowin decoded this sequence as a set of using its proprietary algorithmic complex neuro signals analysis and filtering tools.

THIS IS PROPRIETARY KNOWLEDGE.



THE SECOND BREAKTHROUGH

2. NEURO REGULATORY PROCESS (NRP)

We hypothesized that if there is a NDS, there must also be a Neuro Regulatory Process that governs the development sequence.

A major breakthrough was the deciphering and decoding of this process as a set of complex neuro signals.

Biowin decoded this process in 2014 using its proprietary algorithmic analysis and filtering tools.

THIS IS PROPRIETARY KNOWLEDGE.



HOW DO WE ASSIST THE NDS AND NRP?

When these neuro processes are outside of normative or “optimal” function, we see issues with autonomic function and other quality of life challenges.

Our research concluded that if correct neuro signals could be generated in a non-invasive process they could greatly compensate dysregulated NDS and NRP leading to normative functions in neural networks and the autonomic system leading to optimized homeostasis.

DELIVERY OF A SOLUTION

- Maintaining optimal neurology assists your body to achieve and maintain optimal health.
- Your best health is possible through proper balance and homeostasis.

Decades of scientific literature strongly suggest that haptic perception and vibrotactile stimulation would reduce the “fight-or-flight” sympathetic response when it isn’t needed, allowing the body to rapidly restore its natural homeostasis or balance.



FOR MORE INFO,
REFER TO REFERENCES 13-65

FROM SKIN TO BRAIN: THE SCIENCE OF HAPTICS

- **Sensation** is input about the physical world, obtained by our sensory receptors.
- **Perception** is the process by which the brain selects, organizes, and interprets these sensations.

Recently, researchers have expanded on the idea of haptic perception and have proposed a more extensive theory called **Pattern Theory**.

This theory explains how the brain interprets information from the somatosensory system in whole. Pattern Theory states that the sensation we feel is essentially first created through a specific pattern of nerves that are activated and then eventually decoded by the brain.

Pattern Theory was first hypothesized by a study on pain and itch perception. The theory states that pain signals are sent and perceived by the brain when a specific pattern and combination of receptors are activated. There are no unique or specific circuits for any distinct sensation, instead sensations are encoded into signals, resulting in the designated perceived sensation.



FOR MORE INFO,
REFER TO REFERENCE 66

WE HACKED AND HARNESSSED HAPTIC PERCEPTION

We use neural decoding of the human haptic response, the Pattern Theory of Haptic Perception and frequency interference math to use free nerve endings and mechanoreceptors to generate compensatory signals for compromised NDS and NRP.

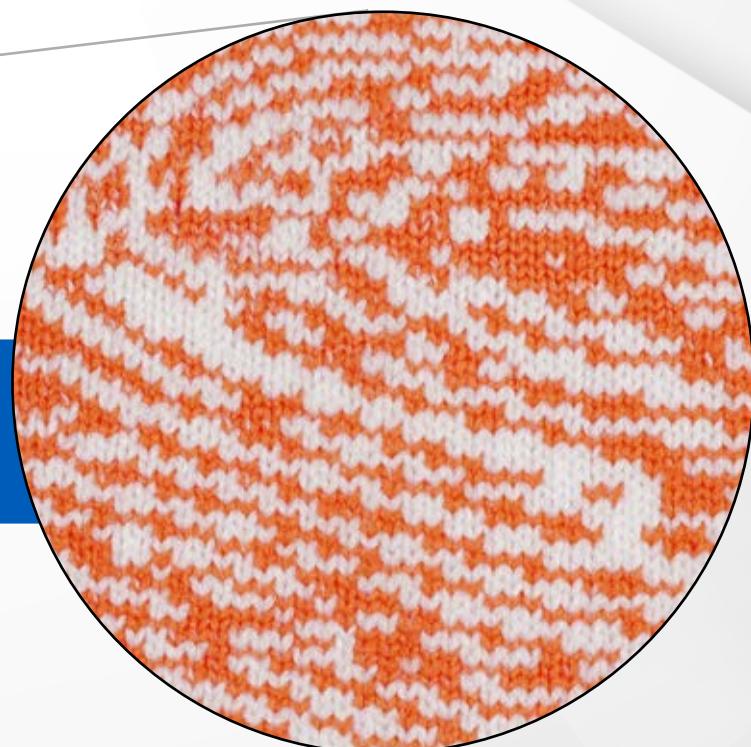
Once we deduced the proper sequence of receptors to replicate optimal NDS and NRP signals, we encrypted the sequence and combination of receptors into a vibrotactile pattern using biometric encryption and Inverse Transforms.

This precise combination of free nerve endings and mechanoreceptors is encrypted in a fingerprint pattern.

In 2014 Biowin was able to encrypt this precise combination of free nerve endings and mechanoreceptors in a fingerprint pattern.



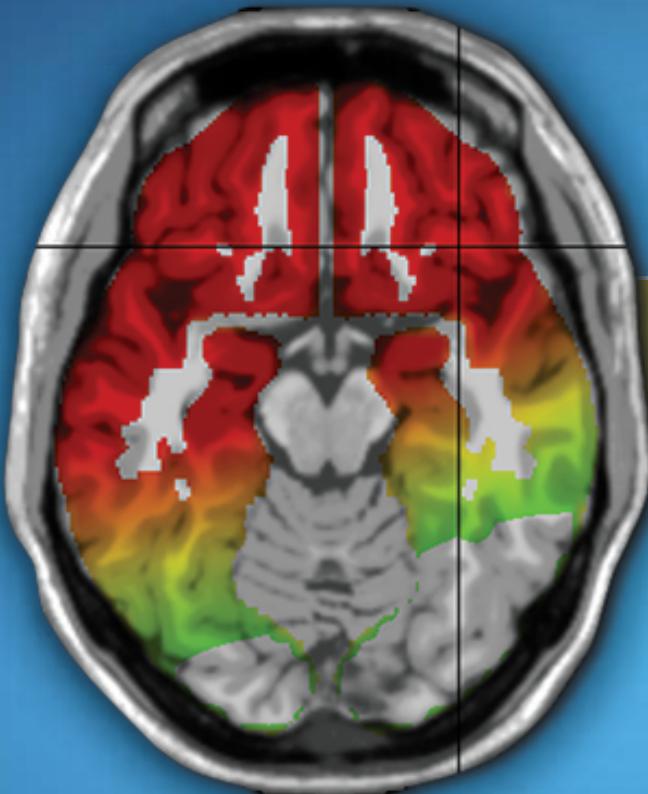
Neuro Haptic Technology "NHT"
proprietary vibrotactile pattern



FOR MORE INFO,
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Biowin NHT: EFFICACY AND DIFFERENCE

OUR BRAINS



OUR BRAINS ON Biowin NHT



Biowin NHT

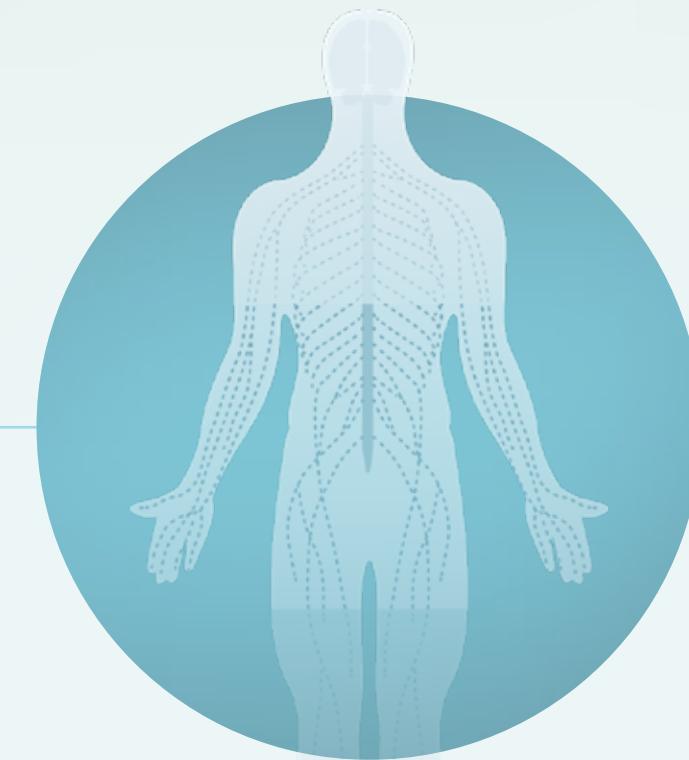
NHT helps our neuro-haptic system generate compensatory NDS and NRP signals that help our neurology and physiology reach and maintain better homeostasis providing a better quality of life and enhanced wellness.



Studies conducted demonstrate
the efficacy of NHT on the Human EEG

HOW IT WORKS

It starts with a special tactile pattern...



1. Trigger a response

Contact with the encrypted pattern to the skin area triggers a neuro response that sends information from the receptors to your brainstem.

2. Affect the body

After processing that information, the Central Nervous System (CNS) distributes commands to your peripheral nervous system, affecting various functions in your body, from pain regulation to motor control and balance.

3. Feel the difference

The effect is instant, ranging from improved balance, mobility and pain management to better energy levels. Maintaining optimal neurology, assists your body to achieve and maintain optimal health.

Biowin NHT: Optimal Function Through Optimal Neurology.

BACKED BY RESEARCH. PROVEN BY SCIENCE

Biowin NHT incorporates vibro-tactile technologies leveraging the pattern theory of haptic perception into socks and other products to help enhance the users wellness and quality of life. NHT has pioneered a proprietary non-electrical and drug free haptic stimulation technology that recent studies show improvements in:

[IMPROVED POWER AND STRENGTH \(ENERGY\)](#)

[IMPROVED BALANCE & STABILITY \(MOBILITY\)](#)

[IMPROVED PAIN AND DISCOMFORT MANAGEMENT](#)

[IMPROVED NEURAL WELLNESS](#)



IMPROVED POWER AND STRENGTH (ENERGY)



IMPROVED BALANCE & STABILITY (MOBILITY)



IMPROVED PAIN & DISCOMFORT MANAGEMENT



IMPROVED NEURAL WELLNESS

- NON-INVASIVE
- DRUG FREE
- NON-ELECTRICAL STIMULATION
- NON-HABITUAL
- RISK FREE
- AFFORDABLE

AVAILABLE PRODUCTS WITH BIOWIN NHT



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