



KAIUT YOGA
LIFELONG LEARNING
INSTITUTE

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THE IMPORTANCE OF UNDERSTANDING THE
Nervous System

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I'm sure you have heard or studied about the human nervous system. It's a complex structure, full of ramifications, which has an important function in our life. A lot more than you can imagine, the nervous system has a direct impact on how you perceive and react to the world around you, being a

big natural ally in your quality of life.

During my years of experience as a yoga teacher, I realized how many people are unaware of how the nervous system works. And, for that reason, often the yoga practice does not achieve the results it could.

To help you build this knowledge about the nervous system, I gathered in this ebook a lot of what I believe and have been studying about the topic. Read, re-read and search for good knowledge sources. As I like to say, understanding the whys of the practice is as important as practicing.

Good reading!

Francisco Kaiut

A handwritten signature in blue ink, appearing to read 'Francisco Kaiut', with a stylized flourish at the end.

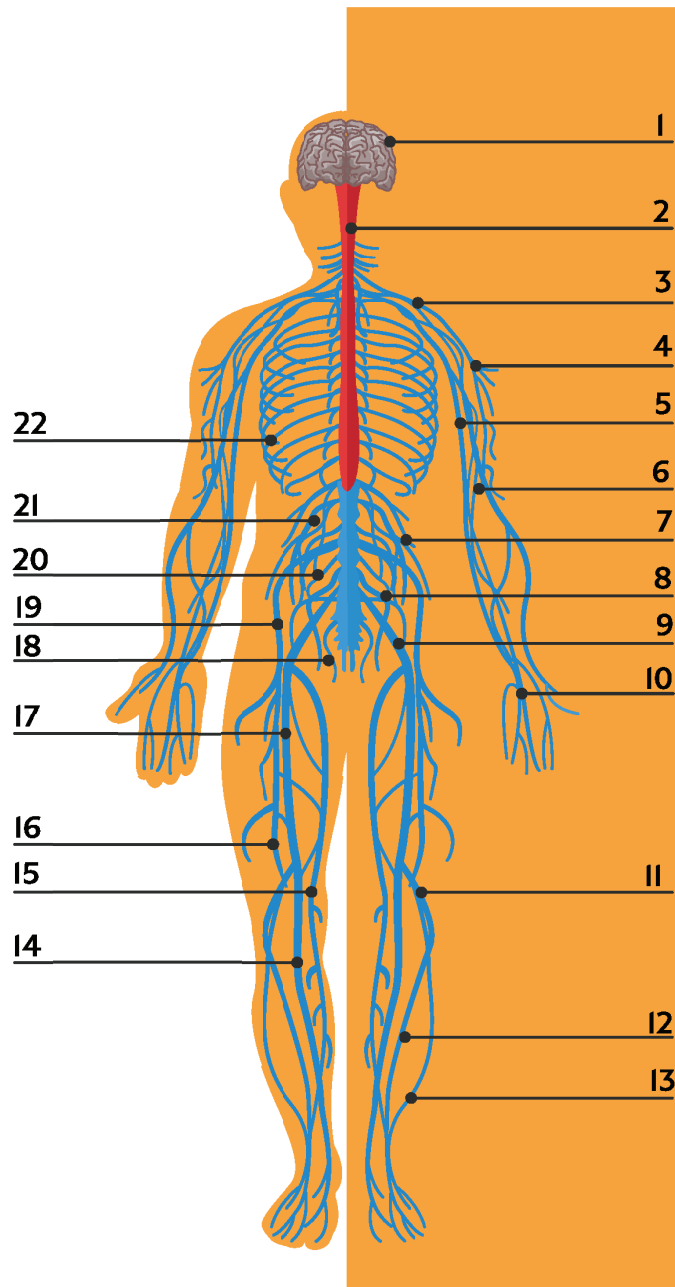


Understanding the structure of the *human* NERVOUS SYSTEM

Imagine a cabling network of a big and powerful computer. This network has a motherboard, a lot of wires and ligaments, all connected. The computer captures information, decodes, interprets and responds accordingly. For each new information, the computer has internal mechanisms to process and give adequate feedback. The programming of this machine is impeccable and works in an integrated way with several softwares.

The human nervous system works exactly like that.

It is a complex system that carries stimuli from sensory receptors to the brain and spinal cord and, in the opposite way, takes stimuli back to all parts of the body. It's a true communication network of the body, made by many organs and nerve endings that interact with each other and react to the internal body and external environment stimuli.



- | | |
|---------------------------|---|
| 1. Brain | 12. Nervus peroneus profundus |
| 2. Spinal chord | 13. Nervus peroneus superficialis |
| 3. Brachial plexus | 14. Tibial nerve |
| 4. Skin - muscle nerve | 15. Saphenous nerve |
| 5. Radial nerve | 16. Muscle branches of the femoral nerves |
| 6. Median nerve | 17. Sciatic nerve |
| 7. Iliohypogastric nerve | 18. Pudendal nerve |
| 8. Genitocrural nerve | 19. Crural nerve |
| 9. Obturator nerve | 20. Sacral plexus |
| 10. Ulnar nerve | 21. Lumbar plexus |
| 11. Common peroneal nerve | 22. Intercostal nerve |



OUR NERVOUS SYSTEM EXERCISE TREE FUNCTIONS:



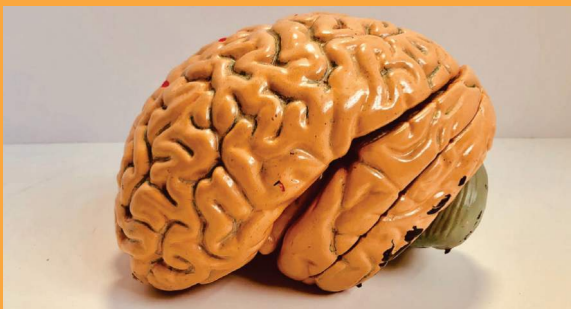
Sensorial:

It's linked to the reception of stimuli and information of the body and external environment.



Motor function:

Information exchange and stimuli that allows the realization of movements.



Integrating:

corresponds to the analyses, preceding and storage of the stimuli and received information.

the AUTONOMIC NERVOUS SYSTEM



The autonomic nervous system (ANS), it's the portion of the central nervous system (CNS) that controls most of the visceral functions of the organism.

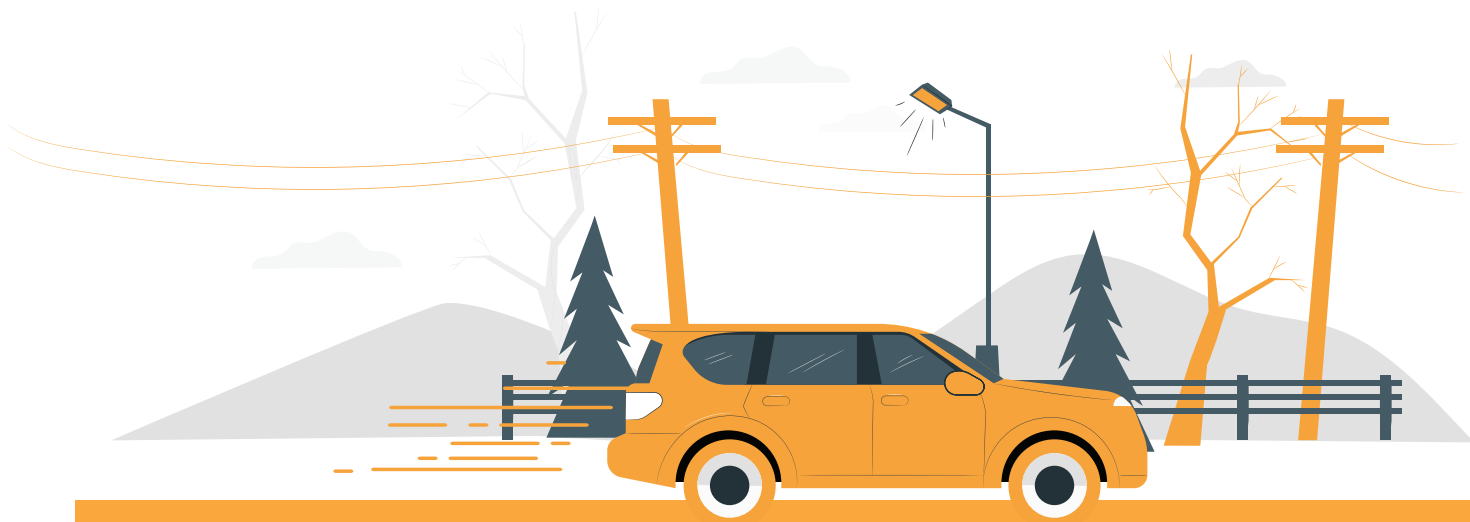
Autonomic signals are transmitted to the organs of the body through two divisions: **the sympathetic nervous system and the parasympathetic nervous system.** These systems can be anatomically differentiated, but there's not a simple way to separate the actions of these divisions on your target organs. Therefore, the best way to identify is according to the type of situation in which they are most active.

Both control the same parts of the body and the same general functions, but with opposite effects.

When we are faced with a threat of any kind, whether physical or emotional, our sympathetic nervous system is triggered, in an automatic and involuntary way. The parasympathetic system acts to slow down certain responses and bring a calm state to the body, allowing it to rest, relax and recover.



A full-page vertical photograph showing the back of a person walking away from the camera on a stage. The person is wearing a dark t-shirt, shorts, and sneakers, and is holding a pair of boxing gloves. They are walking on a light-colored, possibly metallic, surface. In the background, there are bright stage lights and a person standing on a raised platform. The overall mood is dramatic and focused. At the top, there is a horizontal line followed by the text "• • • Kaiut Yoga 2021 •". At the bottom right, there is a circular logo with a stylized 'K' and the text "KAIUT YOGA" repeated around the perimeter.



“That would be equivalent to the accelerator of a car, because the speed is increased all at once, so everything is tense and stuck.”

Frank Suarez

In the face of a dangerous situation, we produce adrenaline and cortisol, which leaves the body in an alert state, ready to react.

These system perform functions in different parts of the body, as the pupillary dilation, the increased diameter of the trachea and bronchi, tachycardia, stimulation of noradrenaline production in the adrenal glands, intensification of release of glucose stored in the liver, vasoconstriction (reduction in size) of blood vessels and bristle of hair.

Defense system



The parasympathetic system mediates our energy consumption and savings, that is, it helps us go from a state of alert to a state of calm. Therefore, it performs actions completely opposite to the sympathetic system.

In rest moments, breaks and satiety, who is in charge is the parasympathetic system, also known as passive.

The vast majority of parasympathetic nervous system controls depend on the **vagus nerve**. This is the longest of all the cranial nerves. It leaves the brain, passes through the lungs, through the heart, stomach, intestines and liver, that is, this nerve travels through the body.

"It is responsible for the control and supervision of a huge range of crucial functions for health, communicating sensory and motor impulses to each of the organs of our body", explains Navaz Habib in Activate your vagus nerve.

Recent studies point out that the function of these nerves has a decisive effect on health, being a **defensive**

ally in the battle against bacteria, viruses, parasites and fungus that attack us. When we talk about this idea, it's due to the nerve's primary role in controlling the immune system.

“Who controls the immune system? The passive side. This means that if the excited side is active, the body has no defense, because it is prepared to fight or run, but not to defend itself.” - Frank Suarez

The parasympathetic system promotes the glandular secretion, regulates the saliva and the deglutition, stimuli the constriction of the bronchi and trachea, muscle contraction mechanism that involves the airways and accelerates the digestive processes and peristaltic movements for greater absorption of nutrients.

That way, this system has essential functions to our survival, performed in an involuntary and unconscious way.

Sympathicotonia:

A MODERN DISEASE THAT NEED TO BE FIGHTED

"The term sympathicotonia is the state in which the sympathetic system dominates the general function in the body organs, that means that our involuntary nervous system is in permanent alert state, as if it had to **atack, run or be paralyzed.**" explains Moacir Faria in Human physiology.

This alert state is provoked by a pituitary gland, also known as hypophysis, which is located at the base of the brain. There are many functions attributed to this gland, such as to control other glands, contributing to the good function of metabolism and in the production of many hormones.

"It's in this location, that all outside stimuli (smell, sound, images, etc) are mixed to the information that comes within (what a specific smell reminds

us, if we have any pain, etc), our memories in general. All this mixes in the pituitary gland, an area where all the associated data to the stimuli are stored" in the memory, or limbic cortex (emotional brain)" according to studies by physiotherapist Trinidad Florindo, for the magazine of Neuropsychology.

Once we have all the information about certain stimuli, our brain responds in an automatic way according to what the pituitary gland finds it necessary to make us react and survive in dangerous situations.

Therefore, if we are in face of a "fight" or "flight" situation, we activate the sympathetic nervous system. On the other hand, the parasympathetic nervous system works to make the organism return to a state of serenity, decreasing the heart rate, smoothing the respiratory rhythm, entering into a restful sleep, etc.

Thus, the return to the desirable normality would be that it did not leave "sequelae", either from a hyperstimulation of the system that put us on alert, or from what neutralized the situation.



“The sympathicotonia is a modern disease, being a direct consequence from our stressful lifestyle. Your main characteristic is the individual starting to operate life stuck in a reactive and defensive operating model, which inhibits cell digestion and regeneration functions.”

Francisco Kaiut

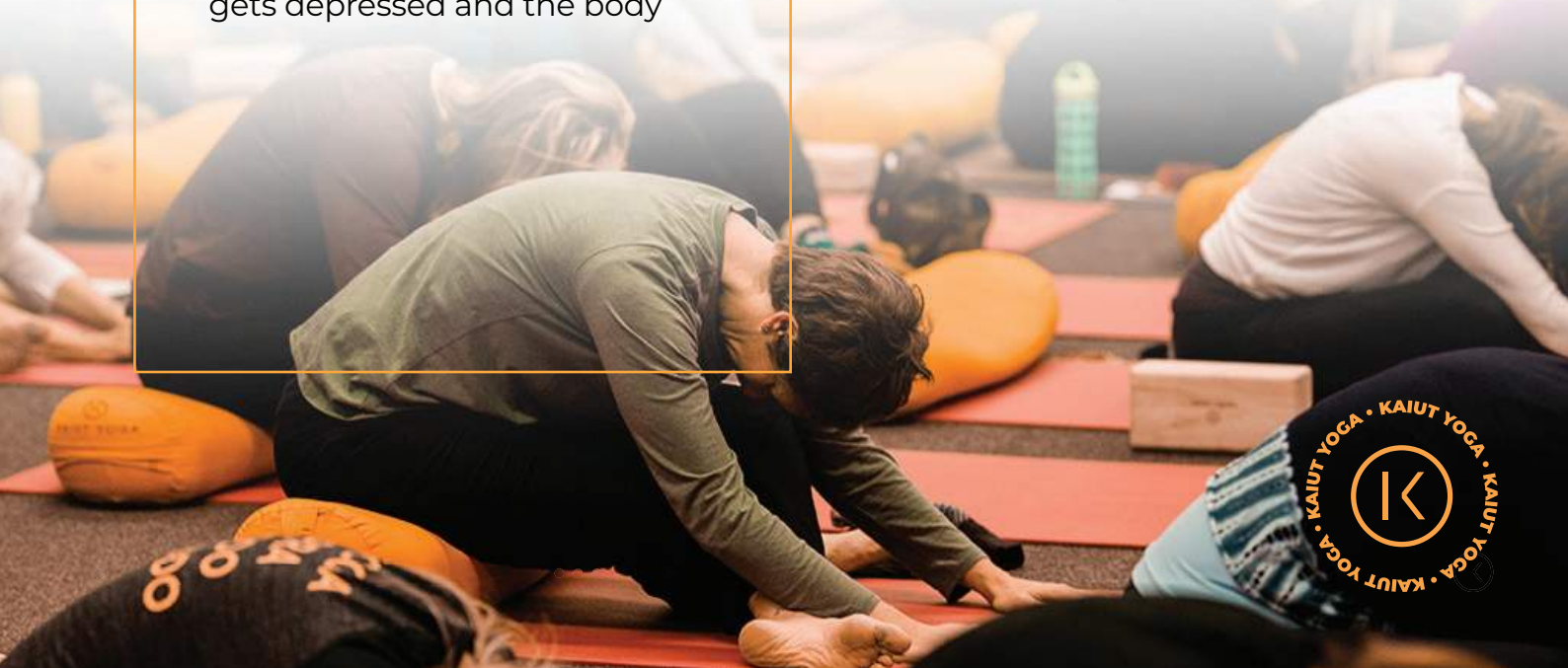
We live in a dynamic environment, where everyday life has many impacts, being physical, chemical or emotional. That makes our muscles tense for hours, not being able to “let down” their guard, we don't have a good night of sleep, we condition ourselves a lot until we lose our quality of life... It's at this moment that sympathicotonia appears.

This happens because when the sympathetic nervous system is activated, the immune system gets depressed and the body

has no defense, in other words, it no longer has a natural protective layer to defend itself against viruses, bacteria, parasites and fungus.

Doctor Hamer in his “Five Biological Rugles” study concluded that diseases cause a shock in which we are totally unprepared. If we could, in a way, be prepared for that shocking event, we wouldn't get sick. According to him, when the shock event is resolved, the body decides to return to normality. The healing process in the body always goes hand in hand with the healing that takes place on the emotional and psychological level.

So a very important step towards being safer from illness is to adopt practices that prevent the nervous system from being constantly stuck in a state of sympathetic operation. Thus, we guarantee that the body will have more support from the natural defense mechanisms provided by the parasympathetic system.



A group of people are practicing yoga on mats. In the foreground, a woman with white hair, wearing a green long-sleeved shirt and black pants, is in a kneeling position with her hands on the floor, using an orange bolster under her knees. Other people are visible in the background, also practicing yoga. A circular logo with the text 'KAIUT YOGA' and a stylized 'K' is overlaid on the image.

THE SEARCH FOR the **Mind and Body** balance

Anxiety is one of the modern evils that most affect the quality of life of people nowadays. According to The World Health Organization (WHO), anxiety disorders are the most common mental illness in the U.S., affecting 40 million adults in the United States age 18 and older, or 18.1% of the population every year.

Anxiety is a feeling connected to worrying, nervousness and intense fear, and it's directly connected to our nervous system. Despite being a natural body reaction, it can become a disorder, even originating sympathicotonia, when the anxious state becomes chronic.

To fight anxiety and other frequent disorders, such as sympathicotonia, the practice of yoga emerges as a natural path, since it acts directly on

the nervous system.

Scientific studies already prove the consistent practice of yoga as an alternative complementary therapy in the treatment of various disorders, which are directly linked to the nervous system. In the Kaiut method, the safe joint stimuli are directly linked to the decrease of a sympathetic and reactive state, reassuring the mind and the body. All of this slows down the internal rhythms and allows for a state of presence.

“ People rarely consider anxiety and compulsion disorders due to a disorder of the nervous system. Many times in my career, I saw students come to me with this picture, needing a big change in the pattern of the nervous system and they didn't even know it. They saw the negative consequences in the body and mind, but did not understand that everything was connected to a chronic anxiety state, generated by this sympathetic operation. ”

Francisco Kaiut

The state of meditation in the practice of yoga isn't just a momentary sensation of comfort and calmness. This meditative state is linked to chemical discharges, provided by the parasympathetic system, which generate real quality of life.

Therefore, it's important to build a yoga practice more orientated, assimilating which parts of our nervous system are activated during and after the practice. From this awareness of the



functioning of the body, it's possible to thread a route for a well being state, inside out.

The intention is not to control the autonomic nervous system, afterall, it's an involuntary system. The idea is to understand and comprehend its functioning, so that, from this, it is possible to make the practice of yoga a powerful tool to reduce the sympathetic action of the nervous system. Thus, we walk towards a lighter life, free from sympathicotonia and much more balanced.





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