

# The impact of homeostasis imbalance on holistic wellness - from a multidisciplinary approach of the science of consciousness<sup>1</sup>

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**Abstract:** *The article presents some fundamental insights into the essential role of homeostasis in holistic wellness from the progressive achievements of interdisciplinary sciences of consciousness, including Neurophysiology, Epigenetics, Psychoneuroimmunology and Quantum Biology. Instead of relying on unsustainable external support, advanced studies propose the application of alternative medical methods, aiming to activate the enormous metabolic and regenerative potential of the human body - a highly advanced biological system that is inherently structured in a comprehensive and synchronous manner, thereby re-establishing a state of homeostasis, developing sustainable physical, mental and environmental health. In-depth knowledge, correct awareness and belief based on a solid foundation of progressive scientific achievements are the paramount keys to a true and sustainable development of mankind.*

**Keywords:** Science of consciousness, Homeostasis Imbalance, Holistic Wellness, Stress, Genes, Brain Waves

## 1. Introduction

In 1948, the World Health Organization (WHO) defined “health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (www.WHO.int). It can be seen that, health is increasingly viewed in a comprehensive manner including physical, mental/emotional, social, environmental, economic, spiritual, vocational, and

political dimensions. Accordingly, Holistic Wellness is becoming a more profound topic than ever both in public platforms and scientific communities around the world. A scientific literature review, the article presents a summary of some new findings, which have important contributions to the development of consciousness regarding holistic wellness and homeostasis from the world’s valued interdisciplinary research works in Neurophysiology, Epigenetics, Neuropsychology-immunology and Quantum Biology. Here, with a close look into homeostasis imbalance as a most basic issue, the article again contributes a

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suggestion of the necessity to integrate natural sciences with social sciences and humanities that is being profoundly proven in such disciplines as Environmental Psychology, Deep Ecology, Science of Sustainability, and Science of Happiness.

## **2. Stress - a typical state of homeostasis imbalance**

There are basically three types of stress: physical (from injuries or accidents), chemical (from air pollution, bacteria, viruses or sugar, poison in blood, food...) and emotional (from family tragedies, social environmental factors, etc.) which cause homeostasis imbalance to the brain and body.

In fact, stress is a natural response mechanism, in which the sympathetic nervous system - an emergency system that stimulates the brain and body to produce adrenaline and mobilize a large amount of energy to adapt and survive against external dangers or risks. Heart rate and breath increase; pupils dilate; blood is pushed to the limbs as a fight or flight response; but at the same time, the energy circulation to other organs are somehow stopped or reduced which causes a state of homeostasis imbalance. All living beings in nature can endure short-term stress. After the stress response is turned off, it is necessary to bring the body back to a state of balance to rest, repair, regenerate and conserve energy. However, modern life has blunted human body's natural adaptability and abnormalized the turn-off mechanism of stress response. One may be incapable of recognizing themselves in a state of stress. Meanwhile, the activities of the parasympathetic nervous system - with the function of relaxation, regeneration and metabolism - become incoherent and the body falls into a state of constant

homeostasis imbalance. If one continues to mobilize huge amounts of energy to deal with external threats, there is no energy left for the internal environment. It is impossible for any organism to live healthily in a constant emergency mode (Dispenza, 2015).

On the other hand, when a person is used to living in stress, they are easily stimulated by stress hormones. Unconsciously, they constantly have the need to create new stuff, relationships or situations to continue to receive adrenaline and negative energies that the body has now become accustomed to. The large size of the cerebral cortex - the thinking part of the brain - enables the process of thoughts into reality. Stress response is immediately turned on just by thinking, making a person "addicted" to negative thoughts and emotions and constantly reaffirming a state that they do not even like.

Every element of the external environment that the mind is exposed to activates a neural network in the brain which is constantly stimulated by the chemicals of stress response. When a person keeps repeating the same thought and feeling patterns over and over again, his or her brain is put into a state of intense concentration of purely analytical mind, and "fueled" by the same harmful chemicals, leading to a lack of coherence and synchrony between left and right, front and back hemispheres, as well as compartments of the brain (<https://www.heartmath.org/research/science-of-the-heart/heart-brain-communication/>).

A great deal of medical evidence has demonstrated the enormous harm caused by hormones of stress responses and genetic conditions that produce disease. Many common diseases that plague the world today, from cancer to allergies, in fact

stem from a compromised or suppressed immune system. This manifests in elevated levels of cortisol, which is stimulated by stress hormones of “survival” mode and chemicals of negative emotions such as fear, anger, frustration, hatred, competition, and violence (American Psychological Association, 2011).

On the other hand, a person who constantly lives with stress hormones always tends to try to control everything in life. Once feeling out of control, they would try to predict the future based on their memories and emotions of the past and seek a sense of security in the familiar or known. That is because, in the lowest survival state, the organism is always afraid of unknown possibilities, and the mind would always choose and prepare for the worst scenarios just to ensure every little chance of survival. In fact, most modern humans are spending 70% of their lifetime in that minimum survival state, which also means a state of unhealthy homeostasis imbalance (Korotkov, 2014).

### **3. Homeostasis affects gene expression**

Every cell in the body (except red blood cells) produces proteins, and *the expression of proteins is the expression of life*, since proteins are responsible for the structure and function of the body. On the other hand, genes are considered as a potential library of life, and *the condition for a cell to produce proteins is that a gene must be stimulated or regulated*. Meanwhile, genes are regulated or receive instructions from extracellular environment. New discoveries in Epigenetics have overturned many misconceptions regarding genes, proving that: *Genes are not the cause of disease. Less than 1% of the population on the planet is born with genetic conditions (such as sickle-cell disease or type I*

*diabetes), while 99% of disease is created by lifestyle, behavior, emotions, thoughts and choices - all of which are instructions from the environment outside the cell* (Drinjakovic, 2015).

Researches have shown that neural circuits in the brain and body, as well as chemical reactions triggered by past experiences/ memories and thoughts, are constantly connected, which altogether create an electromagnetic and chemical environment that carries instructions and signals to genes and cells. Therefore, if a person wakes up every morning, seeking the same sensations, emotions or thoughts, the same chemicals are constantly produced which stimulate the same genes in the same way. In effect, the person is choosing and deciding a certain genetic destiny, because no new information is being sent from the environment to select or guide new genes (Lipton, 2008).

Case studies of people simultaneously exposed to the same carcinogen for long periods of time but with completely different health outcomes suggest that *there is an internal order that is greater than the conditions of the external environment. When cells receive the right signals, genes are regulated to produce healthy proteins*. Worldwide studies of the lives of twins who share the same genes have also demonstrated that: *it is the choices, behaviors, responses to stress, and levels of the resilience of each individual to maintain homeostasis which acts as the important environmental factor that selects, guides, and regulates gene expression* (Dispenza, 2015).

Similarly, research results of The Human Genome Project (1990-2003) showed that there are only 23,688 genes expressed in humans, which is virtually the same as in

any other animal. Within a single gene, there can be thousands of different variations that cause cells to make different proteins, and express life in a variety of ways (National Human Genome Research Institute, 2024). Therefore, when a person cannot overcome his or her habitual thoughts, feelings, and actions that carry a frequency of low vibrations, homeostatic imbalance is maintained which leads to the establishment of a new temporary equilibrium state. Incoherent signals and instructions continue to be sent to the cell's gene expression and produce the same unhealthy proteins, leading to disease outcomes.

Experimental studies around the world have also measured detailed gene expression in patients with various serious health conditions such as Parkinson's disease, Lupus erythematosus, diabetes, cancer, rare genetic disorders for which conventional medicine has yet to find a solution, have shown significant changes on the amount of gene expression regulated by changes in positive emotional and mental states with high vibrational frequencies through experiences such as watching comedy, enjoying nature, practicing meditation, etc. Instructions are sent to damaged tissues to repair and regenerate at a higher and more complete level (Chopra, 2017).

A series of important genes are activated or regulated, including genes that stimulate stem cells, balance hormones and metabolic functions, antioxidants, anti-cancer, anti-aging, anti-heart disease, anti-stroke, anti-neurodegeneration, anti-inflammatory, anti-bacterial, etc. Notably, when stem cell stimulating genes are activated, not only are there new synaptic connections in the brain, but miraculously, new neurons are also created in response to new learning and experiences, even if in a short period of

time. This is an important discovery of the new scientific field called Neuro-genesis (Lipton, 2008).

Furthermore, more and more groundbreaking research is being done on the profound potential of Quantum Healing in an effort to synthesize and lengthen the structure of telomeres - which play an important role in protecting DNA molecules (containing genes) that are rapidly eroded by stress hormones, thereby prolonging the lifespan of cells, increasing biological age and quality of life (QoL). The almost instantaneous changes in telomeres which leads to amazing health improvements beyond the perception of three-dimensional reality have demonstrated the limitless potential of the quantum field and the enormous impact of energy over matter, independent of space and time (Chopra and Tanzi, 2017).

#### **4. Homeostasis imbalance due to subconscious programming**

HEBB Law - a law of Neuroscience foundations - asserts that synaptic connections are strengthened when two or more neurons are repeatedly activated in time and space. This means that if one continues to repeat the same loops of thoughts, choices, behaviors, experiences and emotions, over time, the brain consequently becomes a rigid and narrow programmed box which is attached to a very limited set of properties. In fact, each person has up to 70,000 thoughts in a day, and 90% of those thoughts are the same as the day before. And most people around 35 years old have a set of habits just like a computer programming with loops that determine their personalities and destinies (<https://healthybrains.org/>), both biological and genetic, which include gene expressions.

A habit is a set of behaviors, thoughts, and emotions created through repetition based on certain belief and cognitive patterns. Many people wake up every morning with the habit of immediately picking up their cell phones, checking messages, posting on social media, and waiting for a response... When they do something repeatedly, the body switches to “autopilot” mode and becomes an unconscious mind in the subconscious. In fact, many people become victims of unconscious programming by constantly replaying suffering that they even have never experienced simply because their brains and bodies, neurologically and chemically, are stuck in negative mental and emotional loops. They become dominated by relationships, circumstances, and the external environment, losing their free will and power as the creator of the reality they desire (Dispenza, 2015).

Latest researches in psychology show that up to 50% of memories about the past is not true because of the “misinformation effect”, as well as memories are constantly created new by changes in connections in the brain over time (Hayasaki, 2013). In fact, the brain cannot tell the difference between emotions from real experiences and emotions created by simply thinking about the past (Hamilton, 2019). Over time, the body also believes that it is still living in the same past experience. This state of disunity between the conscious and subconscious minds is the result of a lack of coherence and synchronization between brain and body

Usually, most people really determine to improve their state of homeostasis imbalance only when faced with major events or crises that lead to serious physical or mental health symptoms. However, in reality, when a person decides to change,

no matter how positively the conscious mind (which accounts for only 5% of brain activity) wants to think, it cannot overcome the subconscious programming that is deeply recorded in the cerebellum and body (which accounts for up to 95%) (Pierson, 2022). As a result, they continue to be stuck in redundant loops - the “addicted” state of thoughts and emotions that are inherently triggered by stress hormones.

To truly create significant changes in the inner life and outer environment, one must reprogram their subconscious mind in sync with conscious mind, moving beyond limited memories and lenses of the past self, body and environment, and no longer stay immersed in the old personality (Dispenza, 2008). However, it takes a long time and is often not easy to change personality, ego and habits. To change successfully, one must go beyond the current identity or personality and be more fully present with the expanded reality, becoming an objective observer of the programming that has created that personality and reality. To truly observe the states of mind and body, it is necessary to temporarily disconnect from everything known in life. One successful project well-known in the world conducted by Joe Dispenza’s research team which has integrated modern achievements of neuroscience with ancient healing methods has shown substantial outcomes in facilitating participants to go beyond their analytical mind, profoundly transform subconscious programming, synchronize the brain with the heart and regain homeostasis through brainwave adjustment in meditation practice. The results of thousands of brain scans were verified at Bond University (Australia) and many places around the world showing that more than 80% of measured people had



significant changes in their brains, including many cases of extraordinary improvement in terminal illnesses (Dispenza, 2015).

### **5. Regulation of brain waves and homeostasis re-establishment**

Nowadays, EEG (Electroencephalographic) technology can measure 5 major brain wave states of humans: Beta, Alpha, Theta, Delta and Gamma. Beta (about 13-50Hz) is the most recognized brain wave state in modern society when a person is conscious and alert, paying attention to the external environment and perceiving themselves in space and time. The brain collects and integrates all information through 5 senses. Low Beta (about 13-22Hz) is considered normal state. Meanwhile, high beta (around 22-50Hz) is a state triggered by stress hormones, causing a lack of coherence and synchronization of the brain, and homeostasis imbalance, due to energy mobilization to deal with external threats. Immunoglobulin A (IGA) - an important chemical of the immune system (usually inversely proportional to increased cortisol levels) becomes impaired causing damage to the immune system (Marques-Feixa et al., 2022).

Alpha (8-13Hz) is the brain wave pattern when the thinking part of the brain temporarily rests and relaxes, disconnecting from the external environment through 5 senses. The inner world becomes more real than the outer world. There are no more brain chattering and one can experience the world of imagination, inspiration and creation. Children and creative people tend to live more in the alpha state. On the other hand, the conscious mind goes beyond analytical thinking, entering a state of awareness of the operating system where all subconscious programming, habits and behaviors exist.

Theta (about 4-8Hz) is a slower brain wave pattern than alpha. It is the state of complete rest and relaxation in which the mind and body are half-awake half asleep, also known as hypnosis. In this state, the conscious mind moves out of the cerebral cortex and into the subconscious centers of the brain. Although still aware, the conscious mind and ego are in a state of surrender, receiving and trusting the information connected from the quantum field without analysis. Delta (about 0.5-4Hz) is a slower brain wave pattern than theta, usually occurring when the body is in a state of sleep, with very little activity in the conscious mind. Gamma (50-100Hz) is a brain wave pattern with a frequency faster than beta. But unlike stimuli from danger, threat or stress, which trigger negative emotions such as aggression, fear or sadness in the beta state, in gamma, energy is activated from the body to the brain, causing the brain to switch to a superconscious state - where the internal world becomes even more real.

To regain the body's homeostasis, studies pay much attention to activities that regulate alpha, theta and gamma brain waves, which deeply connect the conscious mind with the subconscious and superconscious programming. EEG measurements reveal major changes in the brain when the mind switches from narrow focus - no longer paying attention to the body, relationships, people, possessions, or limited place and time - to wide focus (or open focus), dispersing all attention and energy away from three-dimensional reality (Korotkov, 2017). The expansion of the mind's awareness then starts to deactivate limited analytical thinking circuits in the cerebral cortex. The compartments in the brain that were

previously fragmented and overlapping quickly become synchronized and unified, which produces more energy in the brain. Neurons seek out broken connections and join larger communities of neurons. The brain's function becomes more organized and coherent. At the same time, when the heart expands and experiences such sincere emotional states as gratitude, joy, trust, forgiveness, and love of life, the levels of IGA of the immune system and many healthy chemicals increase which are fully mobilized for the repair and regeneration of the body. Accordingly, the brain becomes synchronously connected with the heart - also considered the largest energy center of the body (<https://www.heartmath.org/>).

Many patients suffering from incurable diseases such as thyroid disease, cardiomyopathy, cancer, chronic stress, severe physical weakness have been recorded to have successfully recovered in a sustainable manner by brainwave control therapy where the brain, heart and body are trained to consciously re-create the alignment and coherence - also understood as the state of homeostasis. Hormones are reset to balance; the limbic brain - the autonomic nervous system that governs emotions, returns to normal functioning; the body heals itself in a synchronized and comprehensive way with new programming of habits, thoughts, emotions and belief patterns. A genetic revolution is enacted which leads to significant solutions to life crises and improvement of quality of life in an extraordinary way.

## 6. Conclusion

As modern society is increasingly struggling with more difficult issues, it is also witnessing more and more important achievements in the inter-disciplinary

Science of consciousness, including Quantum Biology, Neurophysiology, Epigenetics and Psychoneuro-immunology. This is opening up various prospects in an effort to gain a more in-depth understanding of humans and life, as well as solutions towards holistic wellness and sustainable development for humanity.

The article has focused on presenting some basic scientific knowledge about homeostasis imbalance - with stress as a typical state, the impact on gene expression as a consequence, subconscious programming as one cause, and brain wave regulation and mind programming as a solution to re-establish homeostasis.

It can be seen that, from a profound awareness that the underlying cause of disease is a state of internal imbalance at many different levels, modalities that integrate modern science and ancient wisdom have been proven to be of remarkable effectiveness toward holistic wellness by synchronizing brain, heart and body, reprogramming subconscious mind with new positive thinking and feeling patterns as well as belief system. When one can step out of their old habits and patterns which are the root cause of illness and poor quality of life, swapping them with mental and emotional experiences that have a greater amplitude than the old subconscious programming, logically, the biological body is also completely transformed.

A person who lives a holistic life often has mental and emotional experiences that carry a high electromagnetic field. Those experiences connect, enrich the circuits in the brain, and send healthy chemical signals to the whole body. Once brain, heart and body are attuned into a state of coherence, synchronization and homeostasis, the

whole body constantly undergoes profound processes of assimilation, repair and regeneration. The mind and body become open, receptive to all inspirations, visions, possibilities and unknown materials for new creation and experience. It is the power of the mind in regulating emotions and thoughts that can significantly transform gene expressions and genetic destiny, improving life substantially and sustainably from within. Each individual has great potential as his or her own genetic engineer (Lipton, 2008) □

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