

Phenomenal aspects of Immunity in Vedic Science and Approach of Yoga in Present Scenario

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Immunity is the capability of multicellular organisms to resist harmful microorganisms from entering it. **Immunity** involves both specific and nonspecific components. The nonspecific components act as barriers or eliminators of a wide range of pathogens irrespective of their antigenic make-up.

Modern perspective about Immunity is the balanced state of multicellular organisms having adequate biological defences to fight infection, disease, or other unwanted biological invasion, while having adequate tolerance to avoid allergy, and autoimmune diseases.

However the ancient Vedic literature is filled with knowledge in every area of human requirements. Present study aims to search the phenomenal aspects of Immunity into the Vedic Science and to inculcate the yogic perspectives with the help of contemporary researches.

Key-words: Immunity, Energy, Biophysics, Consciousness and Yoga.

Introduction:

Human Body is a 'Holographic Spectrum' of 'Matter', 'Energy' and 'Karma or Thought-Action Mechanism'. But, our modern medical science has only one major domain of these three and the other one as extremely minor domain i.e. modern medical science has its study and research based only on the 'Physical' level that is 'Matter' and to some little extent on 'Bio-Chemistry' level the is 'Energy', but this medical school of science and philosophy

doesn't have any such domain of 'Thought-Action Mechanism' or 'Karma' which also has a greater impact on the health and wellness of human beings. This particular rare domain is a part of ancient Vedic system of wellness and health which has two sub-divisions as wellness system like 'Yogic Science' and the other one as medicinal system as 'Ayurveda'.

According to modern Science, Immunity is of two types: Humoral (Can be transferred

with infusion of plasma) and Cellular (Cannot be transferred). Humoral immunity depends upon the presence of antibodies, which are contained in the gamma-globulin fraction of the blood plasma. Cellular immunity depends upon the general health of all the cells in the body which also includes the cells of the immune system, e.g. the macrophages, lymphocytes, plasma cells, etc.

Psychological problems may be the largest factor in determining our illness. When we become stressed, our immune system becomes less able to protect us. The stress hormone, corticosteroid, decreases, even suppresses the immune system by lowering the number of lymphocytes (white blood cells needed to fight off disease) in our system.

Studies have shown that stress is associated with increased latent viral reactivation, upper respiratory tract infection, and wound-healing time, indicating that stress causes significant immune response dysfunction. George F. Solomon first demonstrated the influence of stress on immune response in animals and human beings. [1] Stress may be defined as psychophysiological process usually experienced as a negative emotional state. It is a common condition, a response to a physical threat or psychological distress that generates a host of chemical and hormonal reactions in the body. The health effects of stress involve mainly autonomic, cardiovascular, and immune systems. [2]

The first evaluated the effect of GABA intake by 13 subjects on their brain waves. Electroencephalograms (EEG) were obtained after 3 tests on each volunteer as follows: intake only water, GABA, or L-theanine. After 60 minutes of administration, GABA significantly increases alpha waves and decreases beta waves compared to water or L-theanine.

These findings denote that GABA not only induces relaxation but also reduces anxiety. [3]

Relaxation and immunity enhancement effects of gamma-aminobutyric acid (GABA) administration in humans. *Biofactors*. 2006;26(3):201-8. The second study was conducted to see the role of relaxant and anxiolytic effects of GABA intake on immunity in stressed volunteers. Eight acrophobic subjects were divided into 2 groups (placebo and GABA). All subjects were crossing a suspended bridge as a stressful stimulus. Immunoglobulin A (IgA) levels in their saliva were monitored during bridge crossing. Placebo group showed marked decrease of their IgA levels, while GABA group showed significantly higher levels. In conclusion, GABA could work effectively as a natural relaxant and its effects could be seen within 1 hour of its administration to induce relaxation and diminish anxiety. Moreover, GABA administration could enhance immunity under stress conditions. [4]

In response to stress, activation of Hypothalamo-Pituitary-adrenal Axis (HPA) results in secretion of Corticotrophin-Releasing Factor (CRF) from hypothalamus. CRF stimulates the secretion of ACTH from pituitary, which further activates the adrenal glands to produce glucocorticoids, which are powerful immune regulators.[5] The effects of glucocorticoids on cellular and humoral immune responses is quite complex. Although the overall effect of glucocorticoids on immune/inflammatory responses at the cellular level is immunosuppressive, this effect may result from suppression of many stimulatory components of immune cascade and stimulation of some immunosuppressive or anti-inflammatory elements. The relatively greater sensitivity of components of cellular

immunity to glucocorticoid suppression tends to shift immune response from a cellular to humoral pattern during stress.[6]

There is preliminary evidence that relaxation therapy may influence endocrine function and counter balance stress-induced endocrine changes. [7] Stress management is required for medical students to decrease depression and anxiety, and to improve sensitivity toward themselves, peers, and parents. [8]

Yoga-nidra is a scientific relaxation technique established in India, which gives the practitioner not only a healthy body but also a sound mind. Yoga-nidra has been shown to have effects on most physiological systems of the body. Among the various biochemical effects of it, an increase in blood cells [9] and decrease in ESR levels. [10]

Relaxation helps lower stress hormones that compromise the immune system, while also conditioning the lymphatic system to oust toxins from the body, and bringing oxygenated blood to the various organs to ensure their optimal function. Study conducted in the area supports the statement as well. [11]

In our ancient Vedic science and philosophy, human psyche or personality is called 'Vyaktitva' or 'Cosmic Expression' of the 'SELF' as a human being, wherein the 'SELF' is the individual Soul which expresses itself in the 'Physical State' called the 'Sthula Sharira' which in turn is a replica of a very 'Subtle State' called the 'Sukshma Sharira' inherently vested inside the physical state. This subtle state of expression is serves as a blue print of the physical state that if any remarks of injuries or any disease or any infection pattern once exhibited or acquired by the physical form,

then is stored as a memory in the subtle state that is the blue print and hence the physical state is just a replica of the subtle state due to which all our ancestral patterns repeat themselves in the physical form through our DNA in terms of modern medicinal science. Where as they have no such clue as a matter of fact that our body keeps on changing as new cells replace the older ones and in few years every organ till cellular and even at sub-atomic level is changed by this process called growth and repair. Now the question arises that if even at fundamental particle level, our body keeps on changing itself through repair and regeneration process then how come body keeps on having the imprints like scars and also how come genes have same repetitive patterns again and again. In simpler words, if body at 'Matter' level is subjected to a constant change then how come this material body having a memory in its most fundamental level which keeps it into a definite physical identity. This clueless state of modern medicinal science is due to the lack of study of the other two domains of this human personality or psyche or in Vedic language the 'Vyaktitva'- 'The Cosmic Expression of the SELF', which are subtle form and the other even more subtle called the 'Causal State' called the 'Karana Sharira'. The Subtle State is as described already above whereas the 'Causal State' or the 'Karana Sharira' is the psychic shell or sheath of the 'Thought-Action Mechanism' of the Karmas of an individual person which serves as the 'Psychic or Cosmic' Identity of an individual person or the SELF in this existence. The Subtle State or Sukshma Sharira is composed of the gross impressions of the Causal State or Karana Sharira while the Physical State is composed of the gross impressions of the Subtle State or Sthula Sharira.

This triple layered of the human psychic expression is again sub-divided into five layered structure of oval concentric shells or sheaths called the 'Koshas' in the ancient Vedic system. These Koshas are categorized under the above described three layered system of Sthula, Sukshma and Karan Shariras at Physical, Subtle and the Causal States respectively. The five layers are as follows; Physical Sheath (Annamaya Kosha), Mental Sheath (Manomaya Kosha), Energy Sheath (Pranamaya Kosha), Intellectual Sheath (Gyanamaya Kosha) and Transcendental Sheath (Anandamaya Kosha).

Now, the Physical Sheath (Annamaya Kosha) is vested in the Physical State (Sthula Sharira); Mental Sheath (Manomaya Kosha) and Energy Sheath (Pranamaya Kosha) both are vested in Subtle State (Sukshma Sharira); Intellectual Sheath (Gyanamaya Kosha) and Transcendental Sheath (Anandamaya Kosha) both are vested in Causal State (Karana Sharira).

The above description is as per the ancient Vedic system of health and wellness science as well as medicinal school of philosophy of the Vedic system.

Now we take up a slightly different but an interconnected perspective of 'Modern Biophysics' which describes human body as a 'Holographic Spectrum' of 'Matter and Energy' as two primary domains in principle as far as the composition of human body is concerned in this stream of modern science which is a combination of life-science and material science.

In this stream of 'Biophysics', if we take a close observation ourselves apart from all recent researches then we will understand that human body is composed of cells and cells in turn composed of DNA-RNA and

finally it can be taken down to the root composition of fundamental sub-atomic particles similar to that of any non-living thing in universe. But, the unique feature to study here, is that how does these fundamental sub-atomic particles become responsible for 'Life-Mechanism' when they are into their primary behavior in human body or in general any living biological cells and species like plants and animals too, whereas, they do not exhibit any such 'Life-Mechanism' in any non-living structures in the universe. This difference of 'Phenomenal' behavior of this sub-atomic spectrum in 'Life-Mechanism' is the core subject of this study in our ancient Vedic system of health, wellness, medicinal and material sciences since ancient ages and this is very much evident in the 'Shad-Darshan' system of Vedic Science and philosophy, also known as 'Samkhya, Yoga, Nyaya, Vaisheshik, Karma or Purva Mimansa and Vedanta or Uttar Mimansa'.

In the above context, even if we ignore the part of 'Life-Mechanism' of the fundamental particles at sub-atomic level, then as well the human body itself comprise of such complex mechanism as a 'Biophysical System' which is a unique and peculiar system to be studied and analyzed. Here one thing is very strange and to be noticed that this system of human body in this above context, is a system which is functioning like a biophysical system of information patterns which are very much like those of we have in modern day computer systems. Our DNA itself is a complex information string system with double strands, which stores information and helps in replication of that by becoming the blueprint base itself. Now here once we know that DNA, the smallest level of biological basis of human body, itself is composed of the fundamental sub-atomic particles thereby becoming a physical

system instead of a biological system. So in this perspective, DNA becomes the smallest a 'Biophysical System' of information patterns which is responsible for repair and regeneration of human body. This way entire human body is an information pattern collectively in a super-synchronized pattern which if seen in the light of wave-mechanics then appears to be a complex resonance of spherical longitudinal standing-wave which has an incoming wave resonating with its own outgoing wave and becoming longitudinal standing wave. The theory of 'Wave-Structure of Matter' by Prof. Milo Wolf, explains that all physical matter in the universe is nothing but a 'Longitudinal Spherical Standing Wave' and same applies on all sub-atomic structures and most prominently on 'Electron'. Hence, our human body serves as a cosmic information pattern system.

This human body as a complex cosmic information pattern system as a biophysical system, itself naturally maintains its repair, regeneration and growth by its own self sustainable mechanism which in Vedic health, wellness and medicine system is called the 'Consciousness' which itself self transforms apparently to become the 'Vital Forces' known as 'the Pranas'. These five types of Pranas in human system are said to be the 'Life-Force' which is the platform of wellness as due to these Pranas only, this complex biophysical system of human body draws its life force which enables it to repair, regeneration and growth. But, in modern medicine system there is no such conceptual philosophy of Pranas as the core life force. Still the modern studies in 'Biophysics' are trying to reach at the datum where these studies are somewhere seems to be in commensuration with the ancient Vedic studies of the same domain and their application. Recent such studies have come up with the unique spectrum of invisible

light radiated out of all living biological cells and that was termed as 'Biophoton' (photons radiated out of living cells). This collective biophotonic emission from the human body is also called as 'Human Aura' and in modern scientific terms known as 'Bioplasmic Spectrum' for the very reason that the 'Biophotons' are also found to be the core ingredients of 'Bioplasma' which is called as fifth state of matter after the discovery of 'Plasma' as 'Bose-Einstein Condensate' as the fourth state of matter in which free Ions, Electrons, Protons, etc. all were in free uncombined state and yet together. This 'Plasma' as per recent modern physics, has been found to be self-intelligent in its all functionality and behaviour and hence when this 'Plasma' emitted out of living biological cells then it is called 'Bioplasma' and that's why this Bioplasma with the core content of Biophotons, is itself self sustainable and self intelligent in its functionality and behaviour as per recent 'Plasma Physics' and 'Biophysics'. Thus due to its self intelligent functionality and behaviour only, this is very close to the ancient Vedic system of Pranas and Consciousness but yet to travel a long journey to match the Vedic standards holistically.

Now comes the point that if this so called Pranic system or Bioplasmic or Biophotonic system as a complex information pattern comprising the human body is self sustainable for its repair, regeneration and growth then how come the living beings including human body gets diseased. So the straight forward answer to this question is that even the bacteria and virus are also composed of same core phenomenon as the other living being systems for the reason that these bacteria and virus are also the living complex biological information pattern systems so the moment the human beings or any other species lose the strength

of their own complex information pattern system then these so called bacteria and virus themselves being independent complex information pattern systems get the chance to pervade and disturb the information pattern systems of these other species including human beings. This disturbance in the complex information system in living beings is called disease. Here, the strength and sustainability of this complex information pattern system in living beings is called 'Immunity' or 'Immune System' of living beings in simple terms.

So far now we can correlate that disease is nothing but the disturbance in the immune system of living beings. Now we have to understand that no matter any bacterial or viral impact is there on any living being specie especially in our case reference the human beings, we just need to strengthen the complex information pattern system of human body or it can be understood in simple way that if the immune system is strengthened then no bacterial or viral impact can affect. Even if there is any such bacterial or viral impact the only resort is to focus mainly on the immune system so that the disturbance in our complex information pattern system due to the pervasion of bacterial and viral information pattern system is eliminated from our system and the strength of our complex information pattern system is restored which is called restoring health. There is actually less need to counter back or destroying the bacterial and viral impact as it affects in turn destruction of our own information pattern system as immune system due to the same chemical based medicines which may or may not commensurate with the complex biophysical system of our human body. Rather, along with the medication, there is a major need to strengthen back and restoring our own complex information pattern

system or the immune system which will restore our health and wellness.

Conclusion:

It is very much similar to the deletion of virus files from a computer system in which we don't put any external material rather we simply eliminate the external information patterns which affect the system files of our computer. This elimination is done by using the anti-virus files and similarly we can also use such biological anti-viral and anti-bacterial information pattern systems materials given in our ancient Vedic system as the 'Ayurveda' for boosting up the immune system of human body and making it more self sustainable and competent enough to counter back any such pervasion of bacterial and viral information pattern systems into the human body. These immune booster biological anti-viral and anti-bacterial information pattern system material as the immune boosters are innumerable in Ayurveda and they are both herbal called as 'Aushadhi' and complex 'Bio-Metallic' herbal compounds called the 'Bhasm' (*metals decomposed to particle size below 1 Micron by breaking their mutual metallic atomic bonds by bringing metals to liquid state at room temperature and thereafter turning metals to ashes. This process is slow and gradual and not to be compared with the modern metallurgical processes of simply burning metals at high temperature to convert into ashes. The difference between Bhasm as Ayurveda process and Modern metallurgical process is that in Ayurveda process the particle size of Bhasm ash is below 1 Micron while in modern metallurgical process it is above 2 Micron. Human body cells as complex information pattern system doesn't assimilate anything above 1 Micron i.e. it assimilates only colloidal form of metals like Iron, phosphorous, calcium, potassium, sodium, magnesium, etc. in human body and*

the herbal Aushadhi and fruits, vegetables and milk, etc. , all these have metals in colloidal form only).

This aspect of the composition and constituent of the human body is needed to

be well researched and studied through the unified, blended and correlated study of the modern science and the ancient Vedic science. Then only we can expect a complete holistic health and wellness system to emerge in this era.

References:

1. Solomon GF, Moss RH. Emotions, immunity and disease: A speculative theoretical integration. Arch Gen Psychiatry. 1964;11:657–74.
2. McEwen BS, Stellar E. Stress and the Individual. Mechanisms leading to disease. Arch Intern Med. 1993;153:2093–101.
3. Abdou AM1, et.al. Relaxation and immunity enhancement effects of gamma-aminobutyric acid (GABA) administration in humans. Biofactors. 2006;26(3):201-8.
4. Abdou AM1, et.al. Relaxation and immunity enhancement effects of gamma-aminobutyric acid (GABA) administration in humans. Biofactors. 2006;26(3):201-8.
5. 15. Russo-Marie F. Macrophages and the glucocorticoids. J Neuroimmunol. 1992;40:281–6. [[PubMed](#)]
6. 16. Wu CY, Fargeas C, Nakajima T, Delespesse G. Glucocorticoids suppress the production of interleukin 4 by human lymphocytes. Eur J Immunol. 1991;21:2645–7. [[PubMed](#)]
7. Gallois PH, Forzy G, Dhont JL. Hormonal changes during relaxation. 1984;10:79-82. Encephale. 1984;10:79–82. French.
8. Whitehouse WG, Dinges DF, Orne EC, Keller SE, Bates BL, Bauer NK, et al. Psychological and immune effects of self hypnosis training for stress management through the first semester of medical school. Psychosom Med. 1996;58:249–63.
9. Kumar K; The Healing Sleep; Yoga Magazine (Body Mind Spirit); Published from York Street, London; Issue 50 March 2007 pp: 42-44.
10. Kumar K; A study on the impact on ESR level through Yogic Relaxation Technique *Yoga nidra*; Indian Journal of Traditional Knowledge; N I S C A I R, New Delhi Vol. 11, No.2 Apr 2012. pp 358–61
11. Kumar K, A study on the effect of Yogic Intervention on Occupational stress level of Working Women, Int J Yoga Allied Sci, 4 (2) (2015) 110 - 115.