

Yoga Nidra and Stress

Modern neurophysiologists have been able to demonstrate an obvious relationship between the body and the brain which was recognised by yogis thousands of years ago. Using stimulating electrodes to probe the brain's surface, neurosurgeons have shown that each part of the body is precisely mapped out along the surface of the central gyrus or fold of the sensory-motor cortex of the brain.

The brain is the physical mediator of consciousness, linking mind, body and emotions into one harmonious unit. The neurosurgeon affects the body by stimulating the brain. In contrast, the practice of yoga nidra begins at the other end of the nerve pathway, by heightening the awareness of the body in order to stimulate the brain. The progressive movement of awareness through the parts of the body in yoga nidra not only induces physical relaxation, but also clears all the nerve pathways to the brain, both those governing the physical activity and those concerned with incoming information. At the same time, a total run through the brain surface is made, from inside out. In this way, yoga nidra relaxes the mind through relaxing the body.

The host of stress-related diseases and complaints originate out of excessive identification of the psyche with the soma or the physical body, through the medium of the sensory channels, leading to nervous depletion, exhaustion and even breakdown. In yoga nidra, this destructive psychosomatic tendency is effectively alleviated by the opposite somato-psychic route. Psychosomatic imbalance is restored spontaneously due to the liberation of prana or nervous energy, which is withdrawn from the sensory channels and modalities as the pratyahara state is attained. This energy, instead, is redirected to the healing and rejuvenation of overtaxed tissues, glands and organs.

Sensations and feelings

After relaxation of the sensory-motor surface of the brain, the practice of yoga nidra shifts to the arousal of feelings or experiences. These seem to emanate from the core of our beings while simultaneously being experienced in a part of the body or throughout the body as a whole.

Throughout the body tissues and structures, there are numerous specially adapted sensory nerve terminals which respond to specific types of stimuli, such as touch, and so on. These tiny sense organs, including the proprioceptors of the joints, the pacinian corpuscles beneath the skin and the pain and temperature receptors, are continually gathering information from all parts of the body and relaying it to specific centres deep within the brain.

Brain researchers have been able to locate and isolate the majority of these important centres which are located in the base of the brain. The most relevant are those concerned with food and water intake, temperature regulation and the experiences of pain and pleasure. In yoga nidra, we awaken the sensations of heaviness and lightness, heat and cold, pain and pleasure, and so on, thereby stimulating those centres of the brain responsible for maintaining harmony between our inner and outer environments. Each of these centres has its reciprocal centre for balancing our basic drives, for example, the pain centre and the pleasure centre, the hunger centre and the satiety centre, etc. The pairing and alternation of these sensations in yoga nidra helps to maintain the homeostatic balance, and even evolves it by bringing normally involuntary, unconscious functions under control.

Experiencing the opposites

In yoga nidra, the first experience to be awakened is the feeling of heaviness. Physical heaviness is a whole body sensation which accompanies deep musculo-skeletal relaxation. For deep seated tensions and contractions within the network of postural muscles, the instructions "your body feels so heavy that it is sinking into the floor" acts as a command from the brain, encouraging them to 'let go' and release their residual burden. Only then is the total weight of the body surrendered completely into the earth, producing the distinct experience that the body is actually merging with the surface on which it is lying.

After intensifying the feeling of heaviness, it is then superseded by the sensation of lightness: "awaken a sensation of lightness and weightlessness in all parts of the body....your body feels so light....it seems to be floating away from the floor". Invoking the opposite sensation is not an arbitrary choice, but is in accordance with the electrophysiological operating principles of the brain.

Whenever a neuron fires, it transmits an impulse which is relayed and registered in the brain. However, if the same cell continues to fire repeatedly for some time, its message is no longer acknowledged by the brain as it becomes a constant electrical background feature of the central nervous system.

During yoga nidra, a volley of specific impulses initially inundates the brain. After some time, the brain starts to ignore these impulses and the connection of awareness with the body is temporarily displaced. For example, when developing the sensation of heaviness throughout the body, at a point of time, the brain would start to ignore the impulses. Then what happens is very significant. A feeling of lightness then arises spontaneously, as our awareness drifts free of its physical vehicle.

The result is that rather than physical sensations infiltrating and shaping our consciousness, our consciousness can now determine and direct what experiences will be felt by the body!

Developing emotional control

Electrical stimulation of specific parts of the hypothalamus, limbic system and amygdalar regions of the brain elicits specific emotional responses, including rage, aggression and fear. For most people, these negative feelings are harder to control than positive emotions such as love, joy, security and pleasure. In the advanced stages of yoga nidra, practitioners are asked to submit voluntarily to these threatening emotions, while preserving a state of deep relaxation and 'witness awareness' to the whole process.

This practice brings into simultaneous operation nerve circuits in the opposite brain hemispheres. Under normal circumstances, these nerves never operate at the same time. Thus, a new neuronal circuit is established which incorporates two previously irreconcilable states of awareness simultaneously - love and hatred, pleasure and pain, joy and sorrow - with total witness awareness of the conflicting and contrasting emotional reactions and total relaxation.

With repeated practice, this new circuitry becomes an established response, enabling the practitioner to gradually go beyond the realm of conventional human sufferings which arise out of attachment and aversion for the duality of life experiences.

At the physiological level, yoga nidra develops a detached outlook, maturity and control of emotional reactions and autonomic responses. In our day-to-day life, it would mean better management of stressful situations through increased perceptual awareness and enhanced emotional control. It has even been reported that through the use of deep relaxation and visualisation, people have been able to diagnose their own particular diseases even before confirmation by medical examination. Those deeper layers of the mind contain the solution to all our problems, but we have to be able to allow them to manifest while maintaining complete detachment.

Yoga nidra is now prescribed by doctors in many countries both as a preventive and curative therapy in the first three stages of stress-related diseases. To doctors who are seeking an efficient, scientific way of attaining deep, systematic relaxation, yoga nidra provides both a calming retreat and an effective coping device. Many people who were tense, alienated and frustrated, have totally transformed their outlook and have greatly enhanced their appreciation and experience of life after practising yoga nidra.

The relaxation response

The yoga nidra state appears to reflect an integrated response by the hypothalamus, resulting in decreased sympathetic (excitatory) nervous activity and increased parasympathetic (relaxatory) function. This 'relaxation response' can be thought of as the inverse counterpart of the 'fight or flight' response. The level of relaxation attained in yoga nidra serves to lessen the harmful effects of this response-effect of yoga nidra on the brain.

Various research groups have defined the relaxed state of awareness in yoga nidra as 'the hypnagogic state', 'the creative surrender' and 'the relaxation response'. They all refer to the same process of yoga nidra - a state of profound psycho-physiological relaxation and metabolic rest, in which a fundamental release and readjustment in the controlling mechanisms of the autonomic nervous system appear to occur. Scientifically, these have been identified as altered frequency of the brain's electrical rhythms; decreased heart rate and decreased systolic and diastolic blood pressures; altered levels of circulating 'stress hormones', including adrenaline and cortisol from the adrenal glands, and decreased sympathetic nervous activity as reflected in increased galvanic skin resistance (GSR).

Psychological tests have recorded a reduced neuroticism index, enhanced concentration capacity and higher levels of mental and physical well being. During yoga nidra, liberation of the healing energies inherent in the entire psycho-physiological framework seems to occur.

Changing the neuro-humoral response to stress

Yoga nidra appears to work by changing the neuro-humoral reactivity to stress, creating somatic conditions essentially opposite to those prompted by sympathetic over-activity. During yoga nidra the organs and systems of the body attain deep, physiological rest and the body's powerful, inherent, regenerative mechanisms are set in motion. As a result, the body tissues are physiologically braced against stress, becoming less susceptible to its harmful influences. The profound experience of muscular, mental and emotional relaxation attainable in yoga nidra creates a balance of psychic and vital energies within the nadis in the body. The free flow of these energies forms the basis of optimal physical and mental health.

Beyond stress resistance

The ultimate objective of yoga nidra goes far beyond merely combating stressful influences and rectifying the imbalances created by poor stress management. The glimpse of samadhi obtained by the practitioner of yoga nidra, for which it was first formulated by the rishis, is sufficient to transform him from a victim of stress into a victor in life. He not only becomes 'stress-resistant' amidst the pressures, insecurities and difficulties of modern life, but also learns to thrive on the same difficulties which lead others to the brink of mental anguish, emotional self-destruction and physical breakdown. This is the great secret of yoga nidra. It is not only a way of coping with stress; it also provides a means of transforming and positively utilising tension as a stepping stone to greater awareness, efficiency and achievement in life.

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