

Flotation Therapy: Rejuvenating the Body in a Body of Water

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MEDICAL BENEFITS OF FLOATING *History* *Philosophy* *What people need to know before Floating* *What happens: Central Nervous System level* *What happens at the level of the body's physiology* *What happens at the level of the mind/brain* *The medical conditions that can be benefited by Flotation Therapy*

History The origins of floating started in 1954 when Dr. John C. Lilly, a medical practitioner and neuro-psychiatrist was training in psychoanalysis and started to do research regarding the origin of consciousness and its relation to the brain. He tried many experiments with different kinds of float tanks that gradually evolved to the highly technological and comfortable floatation facilities that we have today. The main focus of Dr. Lilly was to create a device that would deprive or restrict the number of external stimuli so that the brain and the individual could be tested in an atmosphere of isolation. Initially these devices were called Sensory Deprivation Chambers but in recent years, with research showing a growing understanding of the benefits of Flotation Therapy, the terminology has changed to Restricted Environmental Stimuli Therapy (R.E.S. T.).

Philosophy The present philosophy of Flotation therapy or R.E.S. T. is to offer people in the community the possibility of one more way of regaining aspects of health, physical, emotional or psychological. There are many schools of thought at the present time in medicine and psychotherapy that are oriented to teach people how to master their bodies and minds in order to achieve a state of deep relaxation. This is essential in the very highly pressurized society of the Western World. This new concept regarding the need for deep relaxation has been validated by recent research showing that up to 80% to 90% of people that go to visit a General Practitioner do so because of a psychosomatic or stress related disorder.

The advantage of Flotation therapy is that it enables most individuals to experience very deep levels of relaxation from the very early stages of this therapy. It has the advantage of the patient not needing to learn any special technique to trigger the relaxation response. Other very useful methods like biofeedback, self-hypnosis, autogenic training, progressive muscular relaxation or meditation generally need a period of learning the specific technique to be followed require a certain period of time and practice to reach deep levels of relaxation, especially when the patient practices on his own.

What people need to know before Floating A floatation facility has water depth of 25cm treated with a very high concentration of Epsom Salts (about 280 kgs/500 litres water). This produces a high density that allows the individual to float naturally and spontaneously without a conscious effort.

This gives the floater a sense of weightlessness, like floating in outer space where there is no gravity. The floating session normally lasts for 50 minutes, usually in silence, but if necessary therapeutic

tapes or music can be used. The important restrictions of the external stimuli are due to the absence of light and visual stimulation, noise, gravity and touch (through maintaining the water at skin temperature). This enables the deep relaxation to occur in a more powerful and easier way than by any other means.

What happens at the Central Nervous System level From the medical point of view the Central Nervous System at the level of the hypothalamic, pituitary and brain stem regions, experience a dramatic restriction of external stimuli in Floatation.

The reticular formation and its reticular activating system, that normally trigger the activation of the cerebral cortex, sub-cortical regions, and the hypothalamic/pituitary axis are defuse, allowing the reticular inhibitory system to take over.

This triggers the relaxation response even further by inhibiting the release of Corticotrophin Releasing Factor, ACTH, and stops the stimulation of the autonomic nervous system via the sympathetic nerves to the adrenal medullae.

This in turn inhibits the release of the neuro-transmitters epinephrine and nor epinephrine, that are associated with distress, with the fight and flight response and its consequent muscular tension and anxiety.

What happens at the level of the body's physiology? Due to the inactivation of the sympathetic nervous system experienced during deep relaxation, we find numerous physiological changes that normalize the inner homeostatic mechanisms. The electrocardiogram shows a decrease in the heart rate. There is a decrease and normalization of the breathe rate, the EEG shows a slowing down of the electrical activity of the brain generating alpha and theta waves that are associated with deep states of relaxation.

The electromyography shows a decrease of the electrical activity of the muscles that is associated with a release of muscular tension and a better blood flow at this level. There is a decrease in the consumption of oxygen associated with the decrease of the metabolic rate. There is a decrease in the production of lactic acid and an increase of its elimination from the system. Since lactic acid is associated with muscular pain and anxiety the patient in the Floatation therapy is able to overcome these two common symptoms.

The levels of encephalon produced in the brain and released into the brain stem and spine is a very important aspect of the relaxation response. Recent research studying the characteristics of these encephalons has shown that the molecular structure is very similar to morphine and therefore the name of endorphins has been given to them. Their main characteristics are the ability to be natural painkillers in the organism by blocking the recept9rs in the synaptic neurones for the transmission of pain. They also produce a sense of well being and euphoria without any side effects.

What happens at the level of the mind/brain? The deep relaxation that occurs during floatation, slowing down the bodily functions, also slows down the activity of the brain and in turn the mind. This allows the conscious/logical/rational and analytical part of the mind to enter a state of deep rest and to be bypassed. The individual can then experience a shift into deeper levels of the mind; the unconscious mind described as the feeling/creative mind in medical psychology and hypnosis.

This shift is very important because it enables the left hemisphere of the brain associated with the thinking/logical mind to have a decrease in its activity enabling the right hemisphere of the brain to be accessed, empowering the feeling/creative and intuitive aspects of the patient. This is one more reason that explains a sense of balance and wellbeing in the patient's everyday life; recent research has shown more and more the importance of having a good balance of activity between the two cerebral hemispheres to guarantee a better state of physical, mental, and emotional health.

The medical conditions that can be benefited by Floatation Therapy

Cardio-Vascular Conditions Due to the substantial physiological changes that we have already discussed it is easy to understand the benefits that Floatation therapy can provide for cardiovascular conditions. The natural beta-blocker effect, acquired through the inactivation of the sympathetic nervous system, allows patients with high blood pressure to derive important benefits.

The decrease of the blood pressure enables reduction of the dosage of pharmacological products in many cases and the suspension of drug therapy in other cases with mild hypertension. It is also evident that Floatation therapy will help patients with heart problems. This occurs through the decrease in ventricular overload due to the reduction of systemic blood pressure and of oxygen consumption.

Musculo-skeletal and rheumatic conditions The main benefits derived from Floatation therapy in musculoskeletal and rheumatic conditions are based in various factors. One of the most important ones is the elimination of the force of gravity that the body experiences inside the tank. This allows a relaxation and expansion of multiple interarticular spaces enabling a better blood flow that will improve the general conditions of affected joints. This applies for conditions like rheumatoid arthritis, traumatic injuries, and also chronic degenerative problems like osteo-arthritis.

Chronic and acute pain of neck, shoulders, and lower back generally experience substantial improvement through the release of accumulated muscle tension and increase of blood circulation to the affected areas. It helps conditions such as fibrositis, tendinitis, bursitis, etc...

The second factor, which benefits substantially these musculo-skeletal conditions, is the already mentioned release of endorphins into the system. These decrease markedly the perception of pain and improve the frame of mind of such patients, helping to break the vicious circle of chronic pain/depression that we often see in these cases.

Psychological and Emotional Conditions The most common psychological and emotional conditions that can experience benefit from Floatation therapy are neurosis/anxiety, depression, confusional syndromes, panic attacks, and associated problems like lack of concentration, of motivation and of memory retention. Most learning disabilities related to stress disorders might benefit from the deep relaxation provided by floating.

The main reason why Floatation therapy helps these conditions is due to the fact that the logical/rational mind is allowed to relax and is by-passed enabling the right brain activity of creativity and intuition to emerge to more conscious levels of understanding. This reinforces not only motivation and drive but clarifies deeper understandings related to genuine interests, vocation and sense of purpose in life.

Addictive Conditions The addiction conditions that are benefited by floating therapy are alcoholism, smoking, caffeine and drug addiction. The main benefits are acquired in two ways. Firstly by deep relaxation, release of anxiety and a better frame of mind.

Secondly because people that are alcoholics or drug addicts enter this habit to obtain an inner state of psychological/emotional pain relief and an artificial state of wellbeing.

This pain relief and wellbeing can be produced naturally through the experience of floating. In addition to the previous considerations patients may also experience a transformational psychological outlook of life. This occurs as they connect more with their genuine interests and sense of direction in life.

Chronic Pain Conditions We have already described many of the musculo-skeletal and rheumatic conditions that generate chronic pain and that are benefited by Floatation therapy. Many other conditions associated with chronic pain, for example cancer, can also benefit by the same mechanism that is the release of endorphins that are natural painkillers that block the transmission of pain at the synaptic level.

Immuno-Depression Conditions Modern research has established clearly the interrelationship between high levels of distress and a depression of the immune system. Also conditions like pain and depression impair the immunological functions. Floatation therapy is very useful in these cases since the deep relaxation attained by patients releases negative stress, helps chronic pain and depression giving a natural boost to the immunological system both at the cellular and humeral level.

There is a new branch in medicine called Psycho-neuroimmunology that uses physical and mental relaxation techniques such as progressive muscular relaxation, biofeedback, autogenic training, combined with medical hypnosis, meditation and guided imagery. These techniques enable individuals to learn how to increase the efficiency of their immunological system. This approach has applications in many medical disorders since it enables positive psycho-physiological changes to occur. In recent years it has been used more and more in multiple oncological problems in adults and children.

Digestive Tract Conditions There are some digestive tract conditions that are associated with high levels of stress that will be benefited by Floatation therapy such as the case of well known psychosomatic disorders like Duodenal Peptic Ulcer and Irritable Bowel Syndrome. Both are associated with high levels of neurosis/anxiety and psycho-emotional conflict.

Present and Future of Floating in Medicine and Medical Psychotherapy The present and future of Floatation therapy is promising and exciting due to the numerous and profound medical benefits discussed previously. We can envisage the possibility of more medical practitioners, and specialists integrating floatation into their practices to help their patients that suffer from many of the medical conditions described in this article.

The specialists that deal with cardio-vascular, rheumatic, psycho-emotional, chronic pain and addictive disorders are the ones that are more likely to integrate this approach to their practice as is already happening. Also medical practitioners and specialists who do not have these facilities will be referring more of their patients to floatation centers.

It is important to consider that all the techniques mentioned that facilitates the relaxation response are potentiated by Floatation therapy and that we must remember that ideally these therapeutic approaches may be combined with counseling, and psychotherapeutic skills. In this way this contemporary approach to Medicine and Psychotherapy will be not only a substantial part of preventative and curative medicine, but also of rehabilitation, and health maintenance medicine.