

### INTRODUCTION



We are all very aware that our present society generates a high level of stress. There has been a dramatic increase in the levels of pressure which affect individuals in the Western World over the past decades. Many aspects contribute to this escalating pressure such as psychological, emotional, financial, career, relationships, community and political concerns. Now more than ever, these pressures are further increased by the volume and speed with which information is being transmitted to us all.

All of these pervasive stressful conditions bring about changes in the mind, emotions, physiology and actions of all members of the community. If levels of distress are high and persistent, they are transformed into a state of dis-ease. We see this in the form of illness, either physical, emotional or psychological.



Over the years, a significant focus of the healing professions, both orthodox and alternative, has been directed towards ways in which practitioners can help their communities with this severe problem.

It is the purpose of this article to review the Medical Benefits of Float Tank Therapy to enhance the understanding of its important role in the alleviation of distress in our Western Society.

## HISTORY

The origins of floating started in 1954 when Dr John C Lilly, a medical practitioner and neuro-psychiatrist was training in psychoanalysis. He started to do research regarding the origin of consciousness and its relation to the brain. This led to many experiments with different kinds of float tanks which gradually evolved to the highly technological and comfortable float tanks which gradually evolved to the highly technological and comfortable float tanks that we have today.

The main objective for 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 Float Tank Therapy, the terminology has changed to Restricted Environmental Stimuli (R.E.S.T.)

## PHILOSOPHY

The present philosophy of Float Tank Therapy or R.E.S.T is to offer people in the community the possibility of one or more effective ways of regaining aspects of health, either physical, emotional or psychological. There are many schools of thought at the present time in medicine and psychotherapy that are concerned with teaching people 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 more than 80% of people that go to visit a General Practitioner do so because of a psychosomatic or stress related disorder.

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

The time and discipline for self-healing are not fostered in our present society which is characterized by a fast pace of living, material achievement, and instant self-gratification. That is why float tank therapy is a practical way to help people overcome such limitations.

### **WHAT PEOPLE NEED TO KNOW BEFORE FLOATING**

A float tank looks like a fiberglass mini-submarine with 600litres of water ( depth of 25cm ) treated with a very high concentration of Epsom Salts ( sodium Magnesium) 280ksgs to 500litres of water. This produces a high density that allows the individual to float naturally and spontaneously without a conscious effort. The floater attains 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, subliminal education tapes or music can be used.

The important restrictions of the external stimuli area created by the absence of light and visual stimulation, noise, gravity, and touch, (through maintaining the water at skin temperature, 35.5deg.) 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**

The physiological changes that occur with float tank therapy relate to different areas of the body/mind connection. From the medical point of view there is a strong effect on the Central Nervous System at the level of the hypothalamic, pituitary and brain stem regions. These regions experience a dramatic restriction of external stimuli in the float tank.

There is a powerful de-activation of the cerebral cortex sub-cortical regions and the hypothalamic/pituitary axis, allowing an inhibitory response to take over the brain and spine. This stops the stimulation of the autonomic nervous system, via the sympathetic nerves to the adrenal medullae. Therefore the release of the neuro-transmitters epinephrine and norepinephrin is also inhibited and the consequent chain reaction of stress, flight and flight response, muscular tension and anxiety does not eventuate.

### **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 normalise the inner homeostatic mechanisms. The electro-cardiogram shows a decrease in the heart rate. There is a decrease and normalisation of the breath rate, the E.E.G, shows a slowing down of the electrical activity of the brain to generate alpha and theta waves that are associated with deep states of relaxation, both physical and mental. The electro-myography shows a decrease of the electrical activity of the muscles that is associated with a release of muscular tension and a better blood flow through the tissues.

There is a decrease in the consumption of oxygen associated with the decrease of the metabolic rate. Lactic acid production decreases and there is an increase of its elimination from the system. Since it is established that lactic acid build-up is associated with muscular pain and anxiety, the patient in float tank therapy is able to overcome these two common symptoms.

The levels of enkephalins 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 enkephalins have shown that the molecular structure is very similar to morphine 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 receptors in the synaptic neurons for the transmission of pain. They also produce a sense of well being and euphoria whilst relieving pain without causing any side effects.

### WHAT HAPPENS AT THE LEVEL OF THE MIND/BRAIN

The deep relaxation that occurs in the float tank, slowing down the bodily functions, and the activity of the brain in turn slows down the mind. This allows the conscious/logical/rational and analytical part of the mind to enter a state of deep rest and to be by-passed. The individual can then experience a shift into deeper levels of the mind, into 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 (thinking/logical mind) to decrease its activity, enabling the right hemisphere of the brain to be accessed. Through empowering these feeling/creative and intuitive aspects of the patient, a sense of balance and well being is created in their life..

Most learning disabilities related to stress disorders may benefit from the deep relaxation provided by floating.

The main reason why the float tank therapy helps these conditions is that the logical/rational mind is allowed to relax and is by-passed enabling the right brain activities of creativity and intuition to emerge to more conscious levels of understanding. This reinforces not only motivation and drive, but also 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 floating can give the addict the benefits they are searching for through their addictive behavior. People that are alcoholics or drug addicts enter this habit to obtain an inner state of psychological/emotional pain relief and an artificial sate of well being. This pain relief and well being can be produced

naturally through the experience of floating.

In addition 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 float tank therapy. Many other conditions associated with chronic pain, for example cancer, can also benefit by the same mechanism, that is the release of endorphins, the natural pain killers that block the transmission of pain at the synaptic level.

### **IMMUNO-DEPRESSION CONDITIONS**

Modern research has established clearly the inter-relationship between high levels of distress and a depression of the immune system. Conditions like pain and depression also impair the immunological functions. Floatation tank therapy is very useful in these cases since you will now be able to understand that the deep relaxation attained by patients releases negative stress, helps chronic pain and depression. Therefore a natural boost to the immunological system results at both the cellular and humoral level. This is validated by a new 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.

There are applications in many medical disorders for these techniques as they enable positive psycho-physiological changes to occur. In recent years it has been used 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, which benefit through float tank therapy. Such is 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 floating therapy as I see it, is promising and exciting due to the numerous and profound medical benefits discussed previously. I can envisage the possibility of orthodox and alternative medical practitioners as well as psychologists and psychotherapists, integrating float tanks into their practices. This will help their patients who suffer from many of the medical and psychological conditions described in this article.

As we already find, 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 hospitals and private practice. The healing professionals who do not have these facilities will be referring more of their patients to float tank therapeutic Centers.

It is important to consider that all the techniques mentioned that facilitate the relaxation response are potentiated by float tank therapy. We must remember that ideally these therapeutic techniques may be combined with counselling, and psychotherapeutic skills to facilitate the inner healing process.

Therefore this contemporary and holistic approach to all the healing disciplines. It will be not only a substantial part of preventative and curative medicine, but also for rehabilitation, and health maintenance medicine.

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