

Complementary & Alternative Treatment for Chronic Pain

THERAPY	WHAT IS IT?	DOES IT WORK? & HOW DOES IT WORK?	WHERE CAN I ACCESS IT?	CITATIONS
Acupuncture	Acupuncture is an ancient form of Chinese medicine which has been used to treat various ailments since 100 BC. It involves the placement of very fine needles into specific points on the human body by a trained practitioner.	Research has shown that acupuncture induces the hypothalamic region of the brain to release endogenous opioids along with a variety of neurotransmitters. This results in a state of deep relaxation and a dampened sensation of pain. Research has also shown that acupuncture inhibits microglial activation. Spinal Cord microglia are cells of the central nervous system involved in inflammation and neuropathic pain.	Three Moons Wellness Center (Waitsfield and South Burlington) 802-496-6600	Lin L, Skakavac N, Lin X, Lin D, Borlongan MC, Borlongan CV, Cao C. Acupuncture-induced analgesia: the role of microglial inhibition. Cell Transplant. 2016 Feb 4. PMID: 26849399
Cognitive Behavioral Therapy	CBT involves talking with a Psychiatrist who helps patients reframe their negative thoughts and behaviors, so that they perceive their pain in a way that leads to a better quality of life. CBT approaches pain as a product of one's mind.	CBT has been shown to actually rewire functional connections in participant's brains. Patient's that showed the greatest improvement in pain symptoms after CBT also showed the greatest changes in functional brain connectivity.	The Mind Body Medicine Clinic at The University of Vermont http://www.uvm.edu/medicine/mbmc/	Shpaner M, Kelly C, Lieberman G, Perelman H, Davis M, Keefe FJ, Naylor MR (2014). Unlearning Chronic Pain: a Randomized Controlled Trial to Investigate Changes in Intrinsic Brain Connectivity following Cognitive Behavioral Therapy. Neuroimage: Clinical (5): 365-376.
Hypnosis	Hypnosis involves an interaction in which the patient responds to suggestions that are designed to produce a state of relaxation and focused attention. Hypnotism is said to have an effect on the subconscious constructs driving the patient's perception of their pain.	Hypnotic inductions have been shown to result in a change in brain activity that is consistent with pain relief. It has been shown that the experience of pain is correlated with faster beta wave brain activity, while pain relief is correlated with slower alpha wave brain activity. Hypnosis results in an increase in alpha brain waves and a decrease in beta brain waves	There are many hypnotherapists in the state of Vermont. You can search for one's available in your area using https://therapists.psychologytoday.com/rms/	Jensen MP, Patterson DR. Hypnotic approaches for chronic pain management: clinical implications of recent research findings. Am Psychol. 2014 Feb-Mar; 69(2):167-77. Chen ACN. New perspectives in EEG/MEG brain mapping and PET/fMRI neuroimaging of human pain. International Journal of Neuroscience. 2001;42(2):147-159 Bromm B, Lorenz J. Neurophysiological evaluation of pain. Electroencephalography & Clinical Neurophysiology. 1998;107:227-253
Craniosacral Therapy	CST involves manipulations that are said to regulate the flow of cerebrospinal fluid leading to a state of increased well-being.	A randomized controlled trial found Craniosacral Therapy to be effective in reducing neck pain intensity. This study also showed the long term efficacy of CST, as patients reported improved functional disability and quality of life up to 3 months after completion of Craniosacral Therapy.	The Vermont Center for Integrative Therapy http://www.vtcit.com/offerings/services/cranial-sacral/	Haller H, Lauche R, Cramer H, Rampp T, Saha FJ, Ostermann T, Dobos G. Craniosacral Therapy for the Treatment of Chronic Neck Pain: A Randomized Sham-controlled Trial. Clin J Pain. 2015 Sep 3 PMID: 26340656
Binaural Beat Therapy	Binaural Beat Therapy provides different frequency auditory stimuli to each ear. The interference between these stimuli are processed in the brainstem and result in a single frequency of sound perceived by the listener. Proposed beneficial effects of listening to binaural beat audio tracks include enhanced meditative mind states, relaxation, focus, and motivation.	This form of therapy has not been formally studied to an extent that has elucidated the mechanism behind it effects, however Theta Binaural Beats were found to reduce perceived pain severity for participants. In addition, a Randomized Controlled Study has shown that listening to binaural beat prior to surgery significantly decreased patient's anxiety. The link between anxiety and the perception of physical pain has been well established.	Binaural Beat audio is available for free on the internet (check resources like YouTube and Spotify)	Padmanabhan R, Hildreth AJ, Laws D. A prospective, randomised, controlled study examining binaural beat audio and pre-operative anxiety in patients undergoing general anaesthesia for day case surgery. Anaesthesia. 2005 Sep;60(9):874-7. PMID: 16115248 Zampi DD. Efficacy of Theta Binaural Beats for the Treatment of Chronic Pain. Altern Ther Health Med. 2016 Jan;22(1):32-8. PMID: 26773319
Flotation-REST Therapy	Flotation-REST involves laying in an enclosed pool of water & Epsom salt. The water temperature is calibrated to match body temperature, Epsom salt allows weightless flotation, and the pool is enclosed to provide a dark, calm environment. Spending time in a Flotation-REST tank reportedly can provide a state of deep relaxation and result in a sense of freedom from one's body.	In a study assessing the effect of Flotation-REST treatment on muscle tension pain, it was found that patients with the most severe pain scores reported a significant reduction in pain intensity after treatment. Flotation-REST also resulted in elevated optimism an reduced anxiety. Patients being treated with Flotation-REST also reported falling asleep much more easily at night.	Satori Float Spa (Burlington) http://www.satorifloatspa.com/ Floating on Brook (Middlesex, VT) (802) 793-9939	Kjellgren A, Sundquist U, Norlander T, Archer T. Effects of flotation-REST on muscle tension pain. Pain Res Manag. 2001 Winter;6(4):181-9. PMID: 11854763