

BIOFEEDBACK TRAINING FOR HEADACHE, ANXIETY, IRRITABLE BOWEL SYNDROME, FIBROMYALGIA, TEMPOROMANDIBULAR DISORDERS AND TINNITUS

Biofeedback is a technique for developing greater awareness of and voluntary control over physiological arousal of the stress nervous system (like muscle tension and shallow breathing) that is often beyond our awareness. Chronic physiological arousal is linked to a number of symptoms and disorders, including anxiety, headache, irritable bowel syndrome, fibromyalgia, myofascial pain and tinnitus. In biofeedback therapy, sensitive recording instruments are used to measure and “feedback” information about physical stress back to the patient in order to develop control over these processes. Studies show that short-term biofeedback training can lead to significant reduction of symptoms with each of these presenting problems.

Headache. Headache patients tend to carry higher tension levels in their shoulders when under stress when compared to those without headache. They also take longer to recover to lower levels of muscle tension after stress. Accordingly, a major focus of current biofeedback treatment is muscle tension in the shoulder area. Muscle tension in other areas may also be addressed, especially around the face and head. We know from studies that optimal improvement with headache patients can often be achieved with short-term biofeedback therapy. 50% of patients report improvement by the 5th or 6th sessions, and more than 90% report significant improvement by the 10th session. Studies also show that more than 90% of patients who continue to practice skills developed in biofeedback therapy report lasting improvement, based on 1-5 year follow-up studies.

Anxiety. Individuals with high levels of anxiety experience more autonomic nervous system arousal and slower recovery to low levels of physical arousal than those with less anxiety. This physical tension is often carried in the neck and shoulder region. Biofeedback training is used to help patients gain greater awareness and control of how their bodies respond to stress. Worries and other patterns in thinking may also be addressed. As with headache patients, studies show improvements can often be achieved by session 6, with significant improvements by session 10.

Irritable Bowel Syndrome. We know from studies that stress worsens bowel symptoms in about 85% of patients with irritable bowel syndrome. Thermal biofeedback, or hand warming, is usually an important part of treatment. Hand warming occurs when the peripheral vascular system is dilated, which is an effective way to achieve deep relaxation. Treatment also includes muscle-relaxation procedures and stress-coping strategies. Studies consistently show that 50 to 65% of patients report significant improvements by session 12.

Temporomandibular Disorders. Disorders of the jaw muscles and temporomandibular joint are associated with stress. Studies show that patients with temporomandibular disorders respond to stressors with more intense facial muscle activity. Facial pain is often linked to clenching and grinding behaviors that are beyond a person’s awareness. Biofeedback training targets excessive muscle tension in the face, head, and neck. Numerous studies support the use of facial muscle training for reducing symptoms of temporomandibular disorders.

Fibromyalgia. While understanding of fibromyalgia is limited, many practitioners assume that excess muscle tension is part of the problem. When biofeedback assessment finds evidence of excessive muscle tension, muscle-relaxation procedures are part of comprehensive biofeedback treatment that focuses on stress management. While only a small number of studies have looked at the benefits of biofeedback for fibromyalgia, they have shown that significant improvements can be achieved in 15 sessions.

Tinnitus. Many experts believe that stress and physical tension in the neck and shoulder region can exacerbate tinnitus. For this reason, biofeedback therapy focusing on muscle-relaxation and stress management is used to treat the disorder. Biofeedback is also thought to have a distracting effect from the sounds associated with tinnitus. Studies show that patients can improve by the 5th session.

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