

Biofeedback

INTRODUCTION

When a person experiences acute pain where actual tissue damage is occurring, the body's automatic and protective reaction is to tense up and restrict movement of the painful area. This is a helpful reaction that serves to promote survival. However, in chronic pain there is often no ongoing tissue damage, so the body's natural reaction to tense up leads to chronically tense muscles that can actually become a major reason for the pain to continue! In addition, most people with a chronic pain problem experience increased stress and anxiety. This adds to tension levels affecting muscles, joints, and connective tissues. Also, our nervous system is more active under stress and can have increased sensitivity to pain. Because these physical signs of tension can greatly increase pain, tension reduction methods such as biofeedback are common treatments in pain centers.

Biofeedback helps people learn to recognize and control physical tension that aggravates their pain. Biofeedback has also been found helpful in treating anxiety, high blood pressure, Raynaud's disease, insomnia, teeth grinding, and irritable bowel syndrome.

WHAT IS BIOFEEDBACK?

Biofeedback is a way of providing auditory and visual feedback on certain biological functions (hence the name biofeedback). When people are provided with feedback on what is going on in their bodies, they can learn how to better control their physiology. For chronic pain patients, biofeedback is most commonly directed at general tension levels and at specific muscles that are problematically tense and overreactive. The biofeedback instruments provide immediate auditory or visual information on whether specific muscles are becoming more or less tense to help people learn how to relax their muscles more deeply. Biofeedback is also directed at temperature and perspiration changes that reflect general tension levels.

With biofeedback treatments, electrical leads are attached to the surface of skin. No needles are involved, and the procedure does not cause discomfort. In fact, most people find biofeedback treatment a relaxing and enjoyable experience.

Most people stay relatively unaware of the many biological changes occurring in their bodies! Increases in muscle tension levels can easily go unnoticed until we suddenly realize our pain problem is acting up. Many people stay chronically tense, so that their pain seems unrelated to fluctuations in stress levels. With the aid of the biofeedback instruments, patients learn how to recognize problematic physiological changes and how to reverse them before they set off an episode of increased pain. Thus, biofeedback helps patients feel and be in greater control of their physiology, instead of feeling helpless to decrease chronic pain and pain flare-ups. This increased sense of control is a key factor underlying all behavioral strategies for pain management.