

What is biofeedback for the lower extremity?

Biofeedback (BFB) has been practiced in clinical settings since the 1970's, and has become a commonly used treatment in stroke rehabilitation. Normal regulation of muscle tone can be disrupted by central nerve damage caused by a stroke. This can prevent your muscles from functioning adequately. With the help of electromyographic biofeedback (EMG-BFB), you can get feedback concerning when your muscles are tense or relaxed. Electromyography or EMG is when a set of electrodes is placed on the skin over the chosen muscle or muscle group to detect the electrical signals that occur when a muscle is tense or contracted. This electrical signal will provide you with visual or auditory feedback on whether or not your muscle is contracting and the amount of force in the contraction.

Does it work for stroke?

Research studies have shown that biofeedback of the lower extremity can lead to improvements in the ability to walk, move your lower extremity to their full range, as well as improve the quality of lower extremity movements while walking. This intervention may also improve the ability to walk in a more natural, functional setting, such as on a sidewalk or street. However, these improvements do not seem to impact performance in daily activities or the muscle stiffness in your lower extremity that is commonly associated with a stroke. These studies did not mention if there are any adverse or harmful effects of biofeedback for the lower extremity in clients who have experienced a stroke, such that this therapy seems to be safe.

Who provides the treatment?

Biofeedback for the lower extremity is typically performed by a physiotherapist. Most rehabilitation centers and private clinics are equipped with EMG equipment.

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