

SUCCESSING WITH BIOFEEDBACK

Biofeedback is most helpful for individuals who:

- Understand verbal instructions and can follow instructions.
- Can actively participate in their treatment.
- Have intact motor function (absence of paralysis).
- Are free from overwhelming psychiatric symptoms.

PREPARING VETERANS FOR BIOFEEDBACK

- Veterans should expect to attend training sessions 1-2 times per week.
- Individual training sessions are typically 30-60 minutes in duration.
- Veterans should be ready to commit to practicing skills for 10-20 minutes, daily, between sessions.
 - Daily practice will help Veterans generalize their skills.
 - Practice can take place throughout the day.
- For Veterans with co-morbid sleep difficulties, practice may be incorporated into a bedtime routine.

INTERPROFESSIONAL TEAM APPROACHES INCREASE BENEFITS

- Interprofessional approaches informed by the biopsychosocial model offer greater benefit than approaches by a single clinician.
- Collaborate with interprofessional team members to provide care consistent with the Whole Health system of care.

CLINICIANS: AIM TO L.E.A.R.N

- L** Listen with empathy to the Veteran's perception of the problem.
- E** Explain your perspective of the problem.
- A** Acknowledge and discuss the differences and similarities between these perspectives.
- R** Recommend a treatment plan.
- N** Negotiate a mutually agreed-upon treatment plan.

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Additional information on complementary headache management can be found at:

mirecc.va.gov/VISN16/complementary-and-alternative-approaches-to-treating-headaches.asp

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SC MIRECC Website: mirecc.va.gov/visn16

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BIOFEEDBACK FOR TREATING HEADACHES



Clinician Brochure



VA | U.S. Department of Veterans Affairs

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Headache diagnoses in the military population are similar to the general population:

21%
WOMEN

7%
MEN

Headaches may be classified as:

- Primary (i.e., benign pain with no underlying pathology).
- Secondary (i.e, pain due to underlying pathological causes that may be harmful).

Veterans experience comorbidities that exacerbate their headaches including:

- Traumatic Brain Injury (TBI)
- Post-Traumatic Stress Disorder (PTSD)
- Depression
- Anxiety
- Insomnia



The two most common types of primary headaches are:

Migraine

- Neurological condition
- Moderate-to-severe pain
- Pulsating/throbbing pain quality
- Nausea and vomiting
- Sensitivity to both light and sound

Tension-Type Headache (TTH)

- Most common headache disorder
- Mild-to-moderate pain intensity
- Tightening/pressing pain quality

Veterans experience a high incidence of post-traumatic headaches (PTHAs) associated with TBI and loss of consciousness that begin within seven days of head trauma.

- Migraine is most common in Veterans with PTHAs.

- Biofeedback is a training technique that uses the mind-body connection to change bodily responses to stressors.
- Biofeedback is effective for treating migraine and tension-type headaches.
- Mechanical sensors, placed on the body, deliver small electrical signals to a monitor that presents data to patients and clinicians in the form of auditory and visual output.
- This helps clinicians facilitate the change process in patients' reactions to stressors.
- The goal of biofeedback is to learn to make bodily changes without needing the biofeedback equipment to do so.

BIOFEEDBACK IMPACTS HEADACHES

- Hyperventilation increases anxiety, muscle tension, and exacerbates headaches.
- Biofeedback helps patients decrease sympathetic nervous system activation.
- Biofeedback enhances parasympathetic nervous system activation to decrease anxiety, tension, and headache symptoms.



- Breath retraining focuses on teaching belly breathing (diaphragmatic breathing).
- Heart-rate variability training focuses on synchronizing heart rate with breathing patterns.
- Galvanic skin response (GSR) measures the amount of sweat on the skin.
- Surface electromyography (sEMG) measures unnecessary muscle activation and focuses on reducing sustained muscle tension.
- Thermal biofeedback helps relax blood vessels to raise the body's peripheral skin temperature.



TREATMENT LENGTH

- Each person learns biofeedback skills at their own pace.
- At least 4 sessions are needed to benefit from biofeedback.
- Most Veterans require 12 sessions or more.