

Clinical Policy: Biofeedback

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Description

Biofeedback therapy provides visual, auditory or other evidence of the status of certain body functions so that a person can exert voluntary control over the functions, and thereby alleviate an abnormal bodily condition. Biofeedback therapy often uses electrical devices to transform bodily signals indicative of such functions as heart rate, blood pressure, skin temperature, salivation, peripheral vasomotor activity, and gross muscle tone into a tone or light, the loudness or brightness of which shows the extent of activity in the function being measured.¹

Policy/Criteria

- I. It is the policy of Pennsylvania Health and Wellness[®] (PHW) that biofeedback is **medically necessary** for the following indications when the basic and treatment-specific criteria in A and B are met.

Reconsideration of medical necessity should be made if more than 14 biofeedback treatments sessions in a 12 month period are necessary. For treatment of fecal and/or urinary incontinence, objective improvement is usually noted within 4 sessions.

A. Basic Criteria- meets all of the following:

1. The individual is motivated to actively participate in the treatment plan, including being responsive to the care plan requirements (e.g., practice and follow-through at home);
2. The individual is capable of participating in the treatment plan (physically as well as intellectually);
3. The condition can be appropriately treated with biofeedback (e.g., existing pathology does not prevent success of the treatment);
4. There is a readily identifiable and measurable response;
5. Biofeedback training is performed by a physician or qualified non-physician practitioner which can include physical and occupational therapists, nurse practitioners, physician assistants, and clinical nurse specialists.

B. Treatment-Specific Criteria - meets any of the following:

1. Stress, urge, or mixed urinary incontinence in cognitively intact adult females who have failed a documented four week trial of Kegel pelvic muscle exercise training;
2. Dysfunctional voiding in children, when other alternative options have been unsuccessful (e.g., timed voiding, prophylactic antibacterial therapy for recurrent urinary tract infections, short term anticholinergic medications to assist developing a normal voiding pattern);
3. Fecal incontinence when either of the following criteria have been met:
 - a. Anorectal manometry demonstrates weakness of the external anal sphincter;
 - b. Decreased ability to perceive rectal distension because of nerve injury;
4. Chronic constipation in patients with organic neuromuscular impairment who have difficulty with outlet obstruction;

5. Anal muscle abnormalities of spasticity, incapacitating muscle spasm, and/or muscle weakness;
6. Thermal biofeedback combined with relaxation training or electromyography (EMG) biofeedback as treatment options in management of tension and migraine headaches;
7. Chronic pain as part of a rehabilitation program;
8. Muscle re-education of specific muscle groups or for treating pathological muscle abnormalities of spasticity, incapacitating muscle spasm (including pain due to spasm), or weakness when more conventional treatments (heat, cold, massage, exercise, support) have not been successful.

II. It is the policy of PHW that biofeedback (including neurofeedback) is **experimental/investigational** for any other circumstances than those specified above.

Background

The three most commonly used forms of biofeedback therapy are: (1) electromyography (EMG), which measures muscle tension; (2) thermal biofeedback, which measures skin temperature; and (3) neurofeedback or electroencephalography (EEG), which measures brain wave activity. Various forms of biofeedback appear to be effective for a narrow range of health problems.

First line treatment of urinary incontinence (stress, urgency, mixed) consists of behavioral treatments with an emphasis on improving quality of life. Initial treatment includes lifestyle modifications and pelvic floor muscle exercise (Kegel exercises). Biofeedback is used as an adjunct to pelvic floor muscle exercises. By providing individuals with concurrent feedback on muscle tone, biofeedback is intended to improve the patient's ability to perform pelvic muscle exercises. Augmented versions also use abdominal and perineal EMG recordings to demonstrate improper contraction of abdominal and gluteal muscles. A systematic review and meta-analysis of 17 randomized or quasi-randomized trials found that compared with women who received pelvic floor muscle exercises alone, those that also received biofeedback were more likely to report improvement or cure of urinary incontinence.¹

Dysfunctional voiding in children is a learned behavior of abnormal urination, which often evolves from attempts to suppress impending or active bladder contractions by inappropriately contracting the pelvic floor muscles, thereby tightening the urinary sphincter complex. Symptoms vary but daytime wetness and urinary tract infections are common. Other urinary symptoms include urgency, frequency, infrequency, and constipation. Usual care of dysfunctional voiding includes voiding on a schedule and keeping voiding diaries. Kegel or pelvic floor exercises may help children gain conscious control of pelvic floor musculature and urination.² Biofeedback teaches children how to identify and control the muscle groups involved in voiding. It is reserved for children with dysfunctional voiding despite an adequate trial of conservative therapy and/or pharmacotherapy. Available studies suggest that biofeedback-directed pelvic floor exercises can improve urinary function in dysfunctional voiding, including those who have previously failed conservative treatment. Biofeedback therapy may result in a faster resolution of symptoms than traditional pelvic floor training without biofeedback.

Biofeedback therapy improves symptoms in more than 70% of patients with defecatory disorders. Biofeedback can be useful in the treatment of constipation to train patients to relax

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their pelvic floor muscles during straining and to correlate relaxation and pushing to achieve defecation. By the relearning process, the non-relaxing pelvic floor is gradually suppressed and normal coordination restored. Biofeedback has been shown to improve rectoanal coordination during defecation and symptoms of constipation despite reduced laxative use. Biofeedback is also used in the treatment of fecal incontinence.³

American Gastroenterological Association

Pelvic floor retraining by biofeedback therapy rather than laxatives is recommended for defecatory disorders (strong recommendation, high-quality evidence).³

American Society of Colon and Rectal Surgeons

Biofeedback may be considered as an initial treatment for patients with fecal incontinence and some preserved voluntary sphincter contraction when there is no response to simple dietary modification, medications, and other supportive measures. In their most recent guidelines on the treatment of fecal incontinence, the American Society of Colon and Rectal Surgeons assign a strong recommendations in favor of biofeedback.⁴

American Academy of Neurology

The American Academy of Neurology recommends relaxation training, thermal biofeedback combined with relaxation training, EMG biofeedback, and cognitive-behavioral therapy as treatment options for prevention of migraine (Grade A). Specific recommendations regarding which of these to use for specific patients cannot be made.⁵

Coding Implications

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CPT® Codes	Description
90901	Biofeedback training by any modality
90911	Biofeedback training, perineal muscles, anorectal or urethral sphincter, including EMG and/or manometry

HCPCS Codes	Description
N/A	

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
G43.001 - G43.719	Migraine headache
G44.201 - G44.209	Tension-type headache
K59.00 - K59.09	Constipation
K59.4	Anal spasm
M62.40 - M62.49	Contracture of muscle
M62.50 - M62.59	Muscle wasting and atrophy, not elsewhere classified
N39.3 - N39.498	Stress incontinence
R15.0 - R15.9	Fecal incontinence

Reviews, Revisions, and Approvals	Date	Approval Date

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