Clinical Policy: Biofeedback

Reference Number: PA.CP.MP.168
Plan Effective Date: 01/2018
Date of Last Revision: 12/2024

Coding Implications
Revision Log

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]

Note: For neurofeedback for behavioral health conditions, refer to *PA.CP.BH.300 Neurofeedback for Behavioral Health Conditions*.

Policy/Criteria

I. It is the policy of PA Health and Wellness® (PHW) that biofeedback is **medically necessary** when all of the following are met:

A. Member/enrollee is cognitively and physically capable of participating in the agreed upon plan of care and motivated to actively participate in the treatment plan requirements (e.g., practice and follow-through at home);
Note: If member/enrollee is a child, support and guidance are available for fulfillment of the plan of care (e.g., practice and follow-through at home);

B. One of the following:
1. Urinary incontinence (i.e., stress, urge, or mixed) in adult members/enrollees who have failed a documented four week trial of 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 and all of the following:
   a. One of the following:
      i. Anorectal manometry demonstrates weakness of the external anal sphincter;
      ii. Decreased ability to perceive rectal distension because of nerve injury;
   b. None of the following contraindications:
      i. Isolated internal anal sphincter weakness;
      ii. Overflow incontinence associated with behavioral or psychiatric disorders;
      iii. Neurological disorders associated with substantial loss of rectal sensation and/or the inability to contract the external anal sphincter;
      iv. Decreased rectal storage capacity from resection, inflammation, or fibrosis;
      v. Suspected or established major structural damage to continence mechanisms;
4. Chronic constipation;
5. Tension or migraine headaches;
6. Chronic pain;

7. 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.

II. It is the policy of PHW that there is insufficient evidence to support the safety and efficacy of biofeedback for any other conditions than those specified above.

** It is the policy of PA Health & Wellness ® (PHW) that determinations for services that are considered **not medically necessary** must be considered on a case-by-case basis by a physician or ad hoc committee and must be made in accordance with the Benefit Plan Contract provisions and applicable state and federal requirements. Denials will require medical director review.

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. 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.[2]

First line treatment of urinary incontinence (i.e., 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. 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.[3] Other urinary symptoms include urgency, frequency, infrequency, and constipation. Usual care of dysfunctional voiding includes voiding on a schedule and keeping voiding diaries. Pelvic floor exercises may help children gain conscious control of pelvic floor musculature and urination.[4] 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.[3]

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 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.[5]

American Gastroenterological Association (AGA)
The AGA states that pelvic floor retraining by biofeedback therapy rather than laxatives is recommended for defecatory disorders (strong recommendation, high-quality evidence).[4] Instrumented anorectal biofeedback therapy should be used to manage symptoms in defacatory disorders (strong recommendation; minimal risk of harm; quality of evidence: moderate).[6]

American Society of Colon and Rectal Surgeons (ASCRS)
The 2023 updated ASCRS clinical practice guidelines for the management of fecal incontinence state that biofeedback may be considered for patients with fecal incontinence (conditional recommendation; quality of evidence: low). The guidelines state that biofeedback is a noninvasive option for patients with fecal incontinence "who have not responded adequately to other conservative measures. The updated guidelines report that nonrandomized, prospective and retrospective studies show 64% to 89% improvement in fecal incontinence with biofeedback, but there are methodolical weaknesses with a number of the smaller studies. These study weaknesses, along with randomized controlled trials comparing biofeedback to other treatment options but not to sham therapy, make it difficult to determine a definitive conclusion on the utility of biofeedback. The ASCRS states that in order to determine the efficacy of biofeedback for fecal incontinence, larger, well-designed studies are needed.[4]

American Academy of Neurology (AAN)
The AAN 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.[7] EEG biofeedback is not currently recommended for treating tension or migraine headaches.

Coding Implications
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2023, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
90901	Biofeedback training by any modality
90912	Biofeedback training, perineal muscles, anorectal or urethral sphincter, including EMG and/or manometry, when performed; initial 15 minutes of one-on-one physician or other qualified health care professional contact with the patient
90913	Biofeedback training, perineal muscles, anorectal or urethral sphincter, including EMG and/or manometry, when performed; each additional 15 minutes of one-on-one physician or other qualified health care professional contact with the patient (List separately in addition to code for primary procedure)

Reviews, Revisions, and Approvals	Revision Date	Approval Date
References reviewed and updated.	06/18	
Removed information note that improvement of fecal/urinary incontinence should be noted in 4 sessions. Removed criteria point under I.A stating including being responsive to care plan requirements and the condition can be appropriately treated with biofeedback. Added child specific sub item point under I.A.1. Codes reviewed	10/19	
References reviewed and updated. Removed CPT 90911 – code deleted 1/1/2020. Replaced with 2020 CPT codes, 90912 and 90913. Removed I.B.5 "Anal muscle abnormalities of spasticity, incapacitating muscle spasm, and/or muscle weakness" as duplicative and revised language in I.B.3. Added contraindications to I.B.3.b.	06/2020	
Annual Review completed. In II, replaced "experimental /investigational" language with the statement that there is insufficient evidence to draw conclusions regarding the efficacy of biofeedback for any other circumstances than those specified above. Added note to refer to CP.BH.300 Neurofeedback for behavioral health conditions. Updated background with no impact on criteria. Changed "review date" in the header to "date of last revision" and "date" in the revision log header to "revision date." References reviewed and updated. In I.B.1. changed "female" to "members/enrollees who have or previously had a female reproductive system" and reworded "cognitively intact" to "no cognitive impairments that would limit participation". ICD-10 code table removed. Minor rewording in Criteria I.B.1. Background updated to reflect 2023 updated clinical practice guidelines from the American Society of Colon and Rectal Surgeons with no impact on criteria. References reviewed and updated. Fecal incontinence criteria reviewed by internal specialist. Aligned policy to annual review cycle. References reviewed, updated and reformatted. Reviewed by specialist.	7/29/2022	02/2024
Annual review. Reworded Criteria I. for clarity and removed statement in Criteria I. regarding reconsideration of medical necessity	12/2024	

Reviews, Revisions, and Approvals	Revision Date	Approval Date
if more than 14 biofeedback treatment sessions in a 12-month period. Reworded Criteria I.A. for clarity and removed criterion regarding individual being capable of participating in treatment plan and incorporated this into Criteria I.A. Removed criterion requiring a readily identifiable and measurable response and criterion regarding qualified practitioners who can perform biofeedback training. Reworded Criteria I.B. for clarity. Removed gender specific verbiage, no cognitive impairments, and Kegel exercise verbiage in Criteria I.B.1. Updated Criteria I.B.4. to only state "chronic constipation" for clarity. Updated Criteria I.B.5. to only state "tension or migraine headaches" for clarity. Removed verbiage regarding a rehabilitation program in Criteria I.B.6. for chronic pain. Removed verbiage regarding more conventional treatments being unsuccessful in Criteria I.B.7. for clarity. Reworded Criteria II. for clarity with no impact to criteria. Background updated with no impact on criteria. References reviewed and updated. Reviewed by external specialist.		

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