Geisinger

Geisinger Health Plan Policies and Procedure Manual

Policy: MP004

Section: Medical Benefit Policy

Subject: Biofeedback for Non-Behavioral Health Indications

Applicable Lines of Business

Commercial	**X**	**CHIP**	**X**
Medicare	**X**	**ACA**	**X**
Medicaid	**X**		

I. Policy: Biofeedback for Non-Behavioral Health Indications

II. Purpose/Objective:
To provide a policy of coverage regarding Biofeedback for Non-Behavioral Health Indications

III. Responsibility:
A. Medical Directors
B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions
Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
c. in accordance with current standards of good medical treatment practiced by the general medical community.
d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment
Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.

- Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age

DESCRIPTION:
Biofeedback for Non-Behavioral Health Indications is a procedure that uses cognitive and behavioral techniques to teach the patient self-regulation of biologic processes.

INDICATIONS: Requires Prior Medical Director or designee Authorization for members with specific benefit coverage that includes biofeedback training.

For Medicare Business Segment
Biofeedback is covered for the treatment and management of urinary incontinence (stress, urge, mixed) with documentation of failed pelvic muscle exercise (PME) training. A failed trial of PME training is defined as no clinically significant improvement in urinary incontinence after completing 4 weeks of an ordered plan of pelvic muscle exercises to increase periurethral muscle strength.

- Biofeedback therapy is covered under Medicare when it is reasonable and necessary for muscle re-education of specific muscle groups or for treating pathological muscle abnormalities of spasticity, incapacitating muscle spasm, or weakness, and more conventional treatments (heat, cold, massage, exercise, support) have not been successful.
- stress or urge incontinence
- fecal incontinence or constipation in selected patients with organic neuromuscular impairment

For Medicaid Business segment:

Biofeedback will be considered medically necessary for Medicaid members for any of the following indications:
- urinary incontinence
- migraine and tension-type headache
- anal spasm, incontinence of feces
- muscular wasting and disuse atrophy
- muscle spasm

For Commercial Lines of Business:
For contracts in which biofeedback is not specifically excluded, biofeedback will be considered medically necessary for any of the following indications:

- Migraine and tension-type headache
- Urinary incontinence (stress, urge, mixed) with documentation of failed pelvic muscle exercise (PME) training
- Anal spasm
- Incontinence of feces
- Muscular wasting and disuse atrophy
- Muscle spasm
- Cancer pain

LIMITATIONS:
There must be documentation in the member's medical record to support the following:
1. The members must be motivated to actively participate in the treatment plan.
2. The members must be capable of participating in the treatment plan (both physically and intellectually).
3. The member's condition can be appropriately treated with biofeedback and pathology does not exist to prevent success of the treatment.

EXCLUSIONS:
For contracts in which biofeedback is not specifically excluded, biofeedback is not covered for treatment of ordinary muscle tension states or for psychosomatic conditions.

Home use (unsupervised) of biofeedback therapy is not covered (e.g., RESPeRATE®, Innosense®).
Coverage for biofeedback for any indication other than as outlined in this policy is considered to be Unproven and therefore **NOT COVERED.** Specific benefit exclusions may also apply per the **Exclusions** section of the applicable benefit documents.

Surface electrode electromyography (sEMG) Biofeedback is considered to be of **Unproven** value and **therefore NOT COVERED.** There is insufficient evidence in the published peer-reviewed medical literature to support the use of home (unattended) sEMG/Biofeedback for any indication**.**

Neurofeedback is considered to be of **Unproven** value and therefore **NOT COVERED**. There is insufficient evidence in the published peer-reviewed medical literature to support the use of neurofeedback for any indication.

The Geisinger Technology Assessment Committee evaluated this technology and concluded that there is insufficient evidence in the peer-reviewed published medical literature to establish the effectiveness of this technology on health outcomes when compared to established tests or technologies.

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

CODING ASSOCIATED WITH: Biofeedback

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at www.cms.gov ***or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.***

90901 Biofeedback training by any modality
90911 Biofeedback training, perineal muscles, anorectal or urethral sphincter, including EMG and/or manometry
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
E0746 Electromyography (EMG), biofeedback device
S9002 Intra-vaginal motion sensor system

LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:

Eisenberg, DM, Delbanco TL, et al, ," Cognitive Behavioral Techniques for Hypertension: Are They Effective?", *Annals of Internal Medicine*, Vol 118(12), 15 June 1993, pp 964-972.

Combs AJ, Libretti D, Glassberg AD, Horowitz M, "Biofeedback Therapy for Dysfunctional Voiders", *Pediatrics*, Vol 98 (3S-II) Supplement, Sept 1996, p 664.

Elia J, Ambrosini PJ, Rapoport JL, " Drug Therapy: Treatment of Attention - Deficit - Hyperactivity Disorder", The *New England Journal of Medicine*, Vol 340(10), 11 Mar 1999, pp 780-788.

Burio KL, et al. "Behavioral vs. Drug Treatment for Urge Urinary Incontinence in Older Women. A Randomized Controlled Trial", *JAMA*, Vol. 280, 16 Dec 1998, pp.2034-2035.

Van der Plas RN, Benning MA, et al., “Biofeedback Training in Treatment of Childhood Constipation: A Randomized Controlled Study”, The Lancet, Vol 348(9030), 21 Sept 1996, pp 776-780.

Pryse-Phillips WEM, Dodick DW, et al., “ Guidelines for the Nonpharmacologic Management of Migraine in Clinical Practice”, Canadian Medical Association Journal, Vol 159(1), 14 July 1998, pp 47-54.

Geisinger Clinic Technology Assessment Committee, “Biofeedback for Stress Urinary Incontinence”, Jan 9, 2002.

Geisinger Clinic Technology Assessment Committee, “Biofeedback for Migraine Headache”, Jan 9, 2002.

Geisinger Clinic Technology Assessment Committee, “Biofeedback for Urinary Incontinence”, Oct 9, 2002.

Draper V., “The use of electromyographic biofeedback for post operative quadriceps femoralis muscle recovery”, Electromyography. 1997.

Levitt R, Deisinger JA, et. al., “EMG feedback-assisted postoperative rehabilitation of minor arthroscopic knee surgeries”, Journal of Sports Medicine & Physical Fitness. 35(3):218-223, Sept 1995.

Draper V., “Electromyographic biofeedback and recovery of quadriceps femoris muscle function following anterior cruciate ligament reconstruction”, Physical therapy 70(1):11-17. Jan. 1990.

Draper V, Ballard L., ”Electrical stimulation versus electromyographic biofeedback in the recovery of quadriceps femoris muscle function following anterior cruciate ligament surgery”, Physical Therapy. 71(6):455-461. June 1991.

HAYES Medical Technology Directory – Biofeedback therapy for vulvodynia and vulvar vestibulitis. 2003 Jan. Lansdale Pa, HAYES Inc. Updated January 10, 2005.

Bergeron S, Yitchak MB, Khalife S, Pagidas K, Glazer HI, Meana M, Amsel R. A randomized comparison of group cognitive-behavioral therapy, surface electromyographic biofeedback, and vestibulectomy in the treatment of dyspareunia resulting from vulvar vestibulitis. Pain 2001;91:297-306.

Glazer HI, Rodke G, Swencionis C, Hertz R, Young AW. Treatment of vulvar vestibulitis syndrome with electromyographic feedback of pelvic floor musculature. J Repord Med. 1995 Apr;40 (4):283-90.

McKay E, Kaufman RH, Doctor U, Berkova Z, Glazer H, Redko V. Treating vulvar vestibulitis with electromyographic biofeedback of pelvic floor musculature. J Reprod Med. 2001 Apr;46(4):337-42.

Hayes Directory (online). Biofeedback Therapy for Vulvodynia. Winifred S. Hayes. Hayes Online Current as of 03/18/2008.

Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) for BIOFEEDBACK Therapy (30.1)

Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) for BIOFEEDBACK Therapy for the Treatment of Urinary Incontinence (30.1.1)

Novitas Solutions. Local Coverage Determination (LCD): Anorectal Manometry, Anal Electromyography, and Biofeedback Training for Perineal Muscles and Anorectal or Urethral Sphincters (L34977)

Woodward S, Norton C, Chiarelli P. Biofeedback for treatment of chronic idiopathic constipation in adults. Cochrane Database Syst Rev. 2014;3:CD008486.

Norton C, Cody JD. Biofeedback and/or sphincter exercises for the treatment of faecal incontinence in adults. Cochrane Database of Systematic Reviews 2012, Issue 7. Art. No.: CD002111.

Brazzelli M, Griffiths PV, Cody JD, Tappin D. Behavioural and cognitive interventions with or without other treatments for the management of faecal incontinence in children. Cochrane Database of Systematic Reviews 2011, Issue 12. Art. No.: CD002240.

Herderschee R, Hay-Smith EJC., Herbison GP, Roovers JP, Heineman MJ. Feedback or biofeedback to augment pelvic floor muscle training for urinary incontinence in women. Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009252.

Cho HY, Kim K, Lee B, et al. The effect of neurofeedback on a brain wave and visual perception in stroke: a randomized control trial. J Phys Ther Sci. Mar 2015;27(3):673-676.

Tan G, Rintala DH, Jensen MP, et al. A randomized controlled trial of hypnosis compared with biofeedback for adults with chronic low back pain. Eur J Pain. Feb 2015;19(2):271-280.

Odawara, M., Hashizume, M., Yoshiuchi, K., Tsuboi, K. Real-time assessment of the effect of biofeedback therapy with migraine: a pilot study. Int J Behav Med. 2015; Feb 11.

Lee, HJ., Boo, SJ., Jung, KW., Han, S., Seo, SY., Koo, HS., Yoon, IJ., Park, SH., Yang, DH., Kim, KJ., Ye, BD., Byeon, JS., Yang, SK., Kim, JH., Myung, SJ. Long-term efficacy of biofeedback therapy in patients with dyssynergic defecation: results of a median 44 month follow-up. Neurogastroenterol Motil. 2015; 27(6):787-95.

Fernandez-Cuadros, ME., Nieto-Blasco, J., Geanini-Yaquez, A., Ciprian-Nieto, D., Padilla-Fernandez, B., Lorenzo-Gomez, MF. Male urinary incontinence: associated risk factors and electromyography biofeedback results in quality of life. Am J Mens Health. 2015; June 30.

Nestoriuc Y, Martin A. Efficacy of biofeedback for migraine: a meta-analysis. Pain 2007; 128(1-2):111-27

Kaushik R, Kaushik RM, Mahajan SK, Rajesh V. Biofeedback assisted diaphragmatic breathing and systematic relaxation versus propranolol in long term prophylaxis of migraine. Complement Ther Med. 2005 Sep;13(3):165-74.

Nestoriuc Y, Martin A, Rief W, Andrasik F. Biofeedback treatment for headache disorders: A comprehensive efficacy review. Appl Psychophysiol Biofeedback. 2008;33(3):125-140.

Landy S, Smith T. Treatment of primary headache: acute migraine treatment. National Headache Foundation. 2004.

American Academy of Neurology. (2000). Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review). Neurol

Vasudeva S, Claggett AL, Tietjen GE, McGrady AV. Biofeedback-assisted relaxation in migraine headache: relationship to cerebral blood flow velocity in the middle cerebral artery. Headache. 2003;43:245-50.

Mauskop A. Alternative Therapies in Headache. Is there a role? Headache 2001; 85(4):1077-1084.

Silberstein SD, Rosenberg J. Multispecialty consensus on diagnosis and treatment of headache. Neurology 2000;54:1553.

National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology. Adult Cancer Pain Version: 1.2022

Wald A, Bharucha AE, Limketkai B, et al. ACG Clinical Guidelines: Management of Benign Anorectal Disorders. Am J Gastroenterol. 2021;116(10):1987-2008

Cho HY, Kim K, Lee B, et al. The effect of neurofeedback on a brain wave and visual perception in stroke: a randomized control trial. J Phys Ther Sci. Mar 2015; 27(3): 673-6

Nan W, Dias APB, Rosa AC. Neurofeedback Training for Cognitive and Motor Function Rehabilitation in Chronic Stroke: Two Case Reports. Front Neurol. 2019; 10: 800.

Anil K, Hall SD, Demain S, et al. A Systematic Review of Neurofeedback for the Management of Motor Symptoms in Parkinson's Disease. Brain Sci. Sep 29 2021; 11(10).

Tinaz S, Kamel S, Aravala SS, et al. Neurofeedback-guided kinesthetic motor imagery training in Parkinson's disease: Randomized trial. Neuroimage Clin. 2022; 34: 102980.

Mayaud L, Wu H, Barthélemy Q, et al. Alpha-phase synchrony EEG training for multi-resistant chronic low back pain patients: an open-label pilot study. Eur Spine J. Nov 2019; 28(11): 2487-2501.

Hesam-Shariati N, Chang WJ, Wewege MA, et al. The analgesic effect of electroencephalographic neurofeedback for people with chronic pain: A systematic review and meta-analysis. Eur J Neurol.
Mar 2022; 29(3): 921-936.

Gatchel RJ. Surface Electromyographic (SEMG) Biofeedback for Chronic Low Back Pain. Healthcare2016 Jun;4(2): 27.

Gamez AB, Morante JJH, et al. The effect of surface electromyography biofeedback on the activity of extensor and dorsiflexor muscles in elderly adults: a randomized trial. Sci Rep. 2019; 9: 13153.

Archer SK, Smith CH, Newham DJ. Surface Electromyographic Biofeedback and the Effortful Swallow Exercise for Stroke-Related Dysphagia and in Healthy Ageing. Dysphagia 2021;36:281-292.

Todhunter-Brown A, Hazelton C, Campbell P, et al. Conservative interventions for treating urinary incontinence in women: an Overview of Cochrane systematic reviews. Cochrane Database Syst Rev. 2022; 9(9):CD012337.

van Reijn-Baggen DA, Elzevier HW, Putter H, Pelger RCM, Han-Geurts IJM. Pelvic floor physical therapy in patients with chronic anal fissure: a randomized controlled trial. Tech Coloproctol. 2022; 26(7):571-582.

This policy will be revised as necessary and reviewed no less than annually**.**

Devised: 1/95

Revised: 6/96; 2/98; 12/02; 02/03 (clarify investigational status), 3/04 (definition, exclusions, references); 4/05, 4/06; 4/07, 5/12(added PME to indications and codes); 5/15; 5/16, 4/17, 4/18 (add headache indication); 4/19 (add Medicare Indications); 5/21 (add Commercial cancer pain indication) 5/24 (add exclusion for sEMG Biofeedback, and neurofeedback)

Reviewed: 4/08, 4/09, 4/10, 5/11, 5/13, 5/14, 1/15, 5/20, 5/22, 5/23

CMS UM Oversight Committee Approval: 12/23, 7/24