Neurofeedback is considered **investigational**.

**Policy Guidelines**

**Note:** Some Blue Shield of California (BSC) plans exclude coverage of biofeedback. Please check benefit plan descriptions for details.

**Biofeedback devices:** Unsupervised home use of a biofeedback device has not been well studied, and further is excluded from coverage per Blue Shield Evidence of Coverage (EOC) General Exclusions and Limitations.

**Coding**

Neurofeedback is specific to electroencephalogram (EEG) biofeedback. There is no specific CPT code for neurofeedback.

The following CPT codes may be used to describe neurofeedback:
- **90875:** Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supportive psychotherapy); 30 minutes
- **90876:** Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supportive psychotherapy); 45 minutes
- **90901:** Biofeedback training by any modality

**Description**

Neurofeedback describes techniques for providing feedback about neuronal activity, as measured by electroencephalogram biofeedback, functional magnetic resonance imaging, or near-infrared spectroscopy, to teach patients to self-regulate brain activity. Neurofeedback may use several techniques in an attempt to normalize unusual patterns of brain function in patients with various psychiatric and central nervous system disorders.

**Related Policies**

- Biofeedback as a Treatment of Chronic Pain
- Biofeedback as a Treatment of Fecal Incontinence or Constipation
- Biofeedback as a Treatment of Headache
- Biofeedback as a Treatment of Urinary Incontinence in Adults
- Biofeedback for Miscellaneous Indications
- Quantitative Electroencephalography as a Diagnostic Aid for Attention Deficit/Hyperactivity Disorder

**Benefit Application**

Benefit determinations should be based in all cases on the applicable contract language. To the extent there are any conflicts between these guidelines and the contract language, the contract language will control. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.
Some state or federal mandates [e.g., Federal Employee Program (FEP)] prohibits plans from denying Food and Drug Administration (FDA)-approved technologies as investigational. In these instances, plans may have to consider the coverage eligibility of FDA-approved technologies on the basis of medical necessity alone.

### Regulatory Status

A number of electroencephalogram (EEG) feedback systems (EEG hardware and computer software programs) have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. For example, the BrainMaster™ 2E (BrainMaster Technologies) is “…indicated for relaxation training using alpha EEG Biofeedback. In the protocol for relaxation, BrainMaster™ provides a visual and/or auditory signal that corresponds to the patient’s increase in alpha activity as an indicator of achieving a state of relaxation.” Although devices used during neurofeedback may be subject to the FDA regulation, the process of neurofeedback itself is a procedure, and, therefore, not subject to the FDA approval. FDA product codes: HCC, GWQ.

### Rationale

#### Background

Neurofeedback may be conceptualized as a type of biofeedback that has traditionally used the electroencephalogram (EEG) as a source of feedback data. Neurofeedback differs from established forms of biofeedback in that the information fed back to the patient (via EEG tracings, functional magnetic resonance imaging [fMRI], near-infrared spectroscopy) is a direct measure of global neuronal activity, or brain state, compared with feedback of the centrally regulated physiologic processes, such as tension of specific muscle groups or skin temperature. The patient may be trained to either increase or decrease the prevalence, amplitude, or frequency of specified EEG waveforms (e.g., alpha, beta, theta waves), depending on the changes in brain function associated with the particular disorder. It has been proposed that training of slow cortical potentials (SCPs) can regulate cortical excitability and that using the EEG as a measure of central nervous system functioning can help train patients to modify or control their abnormal brain activity. Upregulating or downregulating neural activity with real-time feedback of fMRI signals is also being explored.

Neurofeedback is being investigated for the treatment of a variety of disorders including autism spectrum disorder, insomnia and sleep disorders, learning disabilities, Tourette syndrome, traumatic brain injury, seizure disorders, premenstrual dysphoric disorder, menopausal hot flashes, depression, stress management, panic and anxiety disorders, posttraumatic stress disorder, substance abuse disorders, eating disorders, migraine headaches, stroke, Parkinson disease, fibromyalgia, and tinnitus. Two EEG-training protocols (training of SCPs, theta/beta training) are typically used in children with attention-deficit/hyperactivity disorder. For training of SCPs, surface-negative and surface-positive SCPs are generated over the sensorimotor cortex. Negative SCPs reflect increased excitation and occur during states of behavioral or cognitive preparation, while positive SCPs are thought to indicate reduction of cortical excitation of the underlying neural networks and appear during behavioral inhibition. In theta/beta training, the goal is to decrease activity in the EEG theta band (4-8 Hz) and increase activity in the EEG beta band (13-20 Hz), corresponding to an alert and focused but relaxed state. Alpha-theta neurofeedback is typically used in studies on substance abuse. Neurofeedback protocols for depression focus on alpha interhemispheric asymmetry and theta/beta ratio within the left prefrontal cortex. Neurofeedback for epilepsy has focused on sensorimotor rhythm up-training (increasing 12-15 Hz activity at motor strip) or altering SCPs. It has been proposed that learned alterations in EEG patterns in epilepsy are a result of operant conditioning and are not conscious or voluntary. A variety of protocols have been described for treatment of migraine headaches.
**Literature Review**

The original review was based on a 1997 Blue Cross Blue Shield Association Technology Evaluation Center (TEC) Assessment. Literature published since that 1997 TEC Assessment consists of studies that have evaluated neurofeedback for a variety of clinical indications, with the greatest amount of scientific literature published on the treatment of attention-deficit/hyperactivity disorder (ADHD). Relevant systematic reviews and key randomized controlled trials (RCTs), particularly those that compare neurofeedback with sham or an active control, are described here.

**Attention-Deficit/Hyperactivity Disorder**

**Systematic Reviews**

In 2016, Cortese et al, on behalf of the European ADHD Guidelines Group, reported a meta-analysis of 13 RCTs (total N=520 participants) on neurofeedback for ADHD. When outcomes were reported by assessors who were the least likely to be blinded (parents), there were small-to-moderate effects for total symptoms, inattention, and hyperactivity/impulsivity (see Table 1). However, the effects were not significant when the likelihood of blinding was higher (teacher reported). There were no benefits on objective measures of attention and inhibition. The larger trials included in the meta-analysis are described in the next section.

**Table 1. Summary of Meta-Analytic Outcomes From Cortese et al (2016)**

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>No. of Trials</th>
<th>Standardized Effect Size</th>
<th>95% Confidence Interval</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent reported</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total symptoms</td>
<td>13</td>
<td>0.35</td>
<td>0.11 to 0.59</td>
<td>0.004</td>
</tr>
<tr>
<td>Inattention</td>
<td>11</td>
<td>0.36</td>
<td>0.09 to 0.63</td>
<td>0.009</td>
</tr>
<tr>
<td>Hyper/impulsivity</td>
<td>10</td>
<td>0.26</td>
<td>0.08 to 0.043</td>
<td>0.004</td>
</tr>
<tr>
<td><strong>Teacher reported</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total symptoms</td>
<td>8</td>
<td>0.15</td>
<td>-0.08 to 0.38</td>
<td>NS</td>
</tr>
<tr>
<td>Inattention</td>
<td>7</td>
<td>0.06</td>
<td>-0.24 to 0.36</td>
<td>NS</td>
</tr>
<tr>
<td>Hyper/impulsivity</td>
<td>7</td>
<td>0.17</td>
<td>-0.05 to 0.39</td>
<td>NS</td>
</tr>
</tbody>
</table>

**Randomized Controlled Trials**

**Randomized Controlled Trials Included in the Meta-Analysis**

To control for nonspecific effects (attention training) and confounding variables (parental engagement), Gevensleben et al (2009) compared neurofeedback with a control intervention using a computerized attention skills training. All children were drug-naive or drug-free without concurrent psychotherapy for at least 6 weeks before starting training. The 2 training conditions were designed to be as similar as possible, using computer games, positive reinforcement by a trainer, homework, and parental encouragement in using the skills and strategies learned during training in real-life situations. Both groups participated in 2 blocks of 9 sessions (≈100 min/session plus a break), with 2 to 3 sessions per week, and parents were informed that both treatments were expected to be beneficial but were not informed as to which training their child had been assigned. A total of 102 children were randomized in a 3:2 ratio; 8 children were excluded due to the need for medical treatment or noncompliance with the study protocol by either the children or their parents, resulting in 59 children in neurofeedback and 35 in attention training (92% follow-up). SCPs and theta/beta training were compared by starting with 1 type of training in the first block and then the other (counterbalanced order) in the second block. Evaluations were performed by the teachers, who were not blinded to the treatment.

At the end of training/testing, there were no significant differences in parents' attitudes toward the 2 training conditions or in the perceived motivation of their children. Approximately 40% of the parents either did not know which training their child had participated in or had guessed the wrong group. Both parents and teachers rated the neurofeedback group as more improved on the hyperactivity subcomponent of a Strength and Disabilities Questionnaire (SDQ; e.g., 19% vs 3% improved, respectively) and on a German ADHD rating scale, the Fremdbeurteilungsbogen für Hyperkinetische Störungen (FBB-HKS; e.g., 26% vs 9% improved, respectively). Thirty (52%) children in the neurofeedback group and 10 (29%) children in the attention training group improved more than 25% on FBB-HKS scores (odds ratio, 2.68), which was the primary outcome.
measure. Scores on other components of the SDQ—including emotional symptoms, conduct problems, peer problems, and prosocial behavior—did not differ between the 2 training conditions. No significant differences were noted between the 2 neurofeedback training protocols. Results of this RCT suggested that neurofeedback might have specific effects on attention and hyperactivity beyond those achieved by attention training and parental involvement. The authors noted that future studies should further address the specificity of effects and how to optimize the benefit of neurofeedback as a treatment module for ADHD.

Six-month follow-up to the Gevensleben RCT was reported in 2010. Of the 94 children who completed treatment, 17 started medication during the follow-up interval, and parents of 16 children did not return the questionnaires. Follow-up was obtained in 61 (65%) children of the original per-protocol 102 children. Although the percentage of dropouts did not differ between groups, dropouts tended to have higher scores on the FBB-HKS, particularly in the control group. This difference in dropouts between groups limits the interpretation of the comparative data, because scores in the 2 groups included in follow-up were dissimilar at baseline (e.g., baseline FBB-HKS score, 1.50 for the neurofeedback group vs 1.37 for the control group). The improvement observed in the neurofeedback group after treatment appeared to be preserved at 6-month follow-up. For example, the inattention subscore of the FBB-HKS improved from 2.02 to 1.51 after treatment and remained at 1.49 at 6-month follow-up (moderate effect size [ES], 0.73). The hyperactivity/impulsivity subscore improved from 1.10 to 0.79 after treatment and remained at 0.76 at 6-month follow-up (small ES=0.35). The authors of this European study concluded that, although the treatment effects were limited, neurofeedback could be an effective component of a multimodal treatment approach.

Steiner et al (2014) randomized 104 children ages 7 to 11 years with ADHD to neurofeedback, cognitive training, or a no-intervention control condition in an elementary school. Both the neurofeedback and cognitive therapies were administered with commercially available computer programs (45-minute sessions 3 times a week), monitored by a trained research assistant. The neurofeedback electroencephalogram (EEG) sensor was embedded in a standard bicycle helmet with the grounding and reference sensors located on the chin straps on the mastoids. No data were presented on the technical performance of this system. There were some differences in baseline measures between groups, although differences were small. The slope of the change in scores over time was compared between groups. Children in the neurofeedback group showed a small improvement on the Conners 3-Parent Assessment Report (ES=0.34 for inattention, ES=0.25 for executive functioning, ES=0.23 for hyperactivity/impulsivity), and subscales of the Behavior Rating Inventory of Executive Function-Parent Form (Global Executive Composite, ES=0.23) compared with baseline. Interpretation of these findings is limited by the use of a no-intervention control group and lack of parental blinding. Evaluator-blinded classroom observation (using Behavioral Observation of Students in Schools software) found no sustained change with a linear growth model but a significant improvement with a quadratic model. No between-group difference in change in medication was observed at the 6-month follow-up.

**Randomized Controlled Trials Not Included in the Meta-Analysis**

Not included in the Cortese systematic review (described previously) were 3 RCTs with at least 90 patients that compared neurofeedback to methylphenidate or behavioral therapy.

In 2012, Duric et al reported on a comparative study of neurofeedback and methylphenidate in 91 children with ADHD. The children were randomized into 3 groups, consisting of 30 sessions of neurofeedback, methylphenidate, or a combination of neurofeedback and methylphenidate. The neurofeedback sessions focused on the theta/beta ratio. Parental evaluations found improvements in ADHD core symptoms for all 3 groups, but no significant differences between groups. Alternative reasons for improvement with neurofeedback included the amount of time spent with the therapist and cognitive-behavioral training introduced under neurofeedback. In a 2014 publication of self-reports from this study, there was no improvement in attention,
hyperactivity, or school achievement when adjusted for age and sex. Only the neurofeedback group showed a significant improvement in self-reported school performance.

Bink et al compared neurofeedback and treatment as usual (TAU) in a 2015 nonblinded multicenter RCT. Adolescents with clinical ADHD symptoms were stratified by age and randomized to theta/sensorimotor rhythm neurofeedback plus TAU (n=59) or TAU only (n=31). TAU could include stimulant medication and behavioral interventions such as cognitive-behavioral therapy and counseling for patients or their parents. These treatments were comparable between groups. Neurofeedback sessions were given 2 to 3 times a week for 25 weeks. Primary outcomes included the ADHD Rating Scale, Youth Self Report, and Child Behavior Checklist. Behavioral problems decreased equally for both groups, and neurofeedback plus TAU was not more effective than TAU alone. Follow-up at 1-year after treatment also found no benefit of neurofeedback when administered in combination with TAU.

In 2016, Gelade et al reported on a randomized comparison of neurofeedback (n=39) with either stimulants (n=36) or physical activity (n=37). Neurofeedback and physical activity were balanced for the number and duration of sessions (3 sessions a week for 10-12 weeks). The trial was adequately powered to detect a medium effect size. Intention-to-treat analysis with last observation carried forward showed an improvement in parent-reported behavior for all interventions, while teachers, who were not blinded to treatment, reported a decrease of ADHD symptoms only for the methylphenidate group compared to placebo.

Section Summary: Attention-Deficit/Hyperactivity Disorder
At least 5 moderately sized RCTs (N range, 90-102 patients) have compared neurofeedback with methylphenidate, attention skills training, or cognitive therapy. These studies found either small or no benefit of neurofeedback. Studies using active controls have suggested that at least part of the effect of neurofeedback might be due to attention skills training, relaxation training, and/or other nonspecific effects. In addition, the beneficial effects are more likely to be reported by evaluators unblinded to treatment (parents), than by evaluators blinded (teachers) to treatment, suggesting bias in the nonblinded evaluations. The meta-analysis also found no effect of neurofeedback on objective measures of attention and inhibition. Additional research with blinded evaluation of outcomes is needed to demonstrate an effect of neurofeedback on ADHD.

Disorders Other Than Attention-Deficit/Hyperactivity Disorder
Epilepsy
A 2009 meta-analysis by Tan et al identified 63 studies on neurofeedback for treatment of epilepsy. Ten of the 63 studies met inclusion criteria; 9 of these studies included fewer than 10 subjects. The studies were published between 1974 and 2001 and used a pre/post design in patients with epilepsy refractory to medical treatment; only 1 controlled study was included. Meta-analysis showed a small ES for treatment (-0.233), with a likelihood of publication bias based on funnel plot. Updated literature searches have not identified any recent RCTs on the treatment of epilepsy with neurofeedback.

Substance Abuse
A 2008 systematic review of neurofeedback as a treatment for substance abuse disorders described difficulties in assessing the efficacy of this and other substance abuse treatments, including a lack of clearly established outcome measures, differing effects of the various drugs, presence of comorbid conditions, absence of a criterion standard treatment, and use as an add-on to other behavioral treatment regimens. Reviewers concluded that alpha-theta training, when combined with an inpatient rehabilitation program for alcohol dependency or stimulant abuse, would be classified as level 3 or “probably efficacious.” This level is based on beneficial effects shown in multiple observational studies, clinical studies, wait-list control studies, or within-subject or between-subject replication studies. Reviewers also noted that few large-scale studies of neurofeedback in addictive disorders have been reported, and a shortcoming
of the evidence for alpha-theta training is that it has not been shown to be superior to sham treatment.

**Pediatric Brain Tumor Survivors**

In 2016, de Ruiter et al reported a multicenter, triple-blinded RCT of neurofeedback in 80 pediatric brain tumor survivors who had cognitive impairments. The specific neurofeedback module was based on individual EEG, and participants, parents, trainers, and researchers handling the data were blinded to assignment to the active or sham neurofeedback module. At the end of training and at 6-month follow-up, there were no significant differences between the neurofeedback and sham feedback groups on the primary outcome measures for cognitive performance, which included attention, processing speed, memory, executive functioning, visuomotor integration, and intelligence.

**Other Disorders**

Literature searches and a 2014 systematic review of biofeedback for psychiatric and neurologic disorders have identified small studies (case reports, case series, comparative cohorts, small RCTs) of neurofeedback for the following conditions:

- Anxiety
- Asperger syndrome
- Autism spectrum disorder
- Cigarette cravings
- Depression
- Depression and fatigue in patients with multiple sclerosis
- Depression in alcohol addiction
- Dissociative identity disorder
- Fibromyalgia
- Insomnia
- Headache
- Childhood obesity
- Obsessive-compulsive disorder
- Parkinson disease
- Posttraumatic stress disorder
- Schizophrenia
- Stroke
- Tourette syndrome

**Section Summary: Disorders Other Than Attention-Deficit/Hyperactivity Disorder**

The evidence for neurofeedback in individuals with disorders other than ADHD includes case reports, case series, comparative cohorts, small RCTs, and systematic reviews of these studies. For these disorders, the evidence is poor, and a number of questions regarding clinical efficacy remain unanswered. Larger RCTs that include either a sham or active control are needed to evaluate the effect of neurofeedback for these conditions.

**Summary of Evidence**

For individuals who have attention-deficit/hyperactivity disorder (ADHD) who receive neurofeedback, the evidence includes randomized controlled trials (RCTs) and meta-analyses. Relevant outcomes are symptoms, functional outcomes, and quality of life. At least 5 moderately sized RCTs (N range, 90-102 patients) have compared neurofeedback with methylphenidate, attention skills training, or cognitive therapy. These trials found either small or no benefit of neurofeedback. Studies that used active controls have suggested that, at least part of the effect of neurofeedback may be due to attention skills training, relaxation training, and/or other nonspecific effects. In addition, the beneficial effects are more likely to be reported by evaluators unblinded to treatment (parents) than by evaluators blinded (teachers) to treatment, suggesting bias in the nonblinded evaluations. The meta-analysis also found no effect of neurofeedback on objective measures of attention and inhibition. Additional research with blinded evaluation of outcomes is needed to demonstrate an effect of neurofeedback on
ADHD. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have disorders other than ADHD (e.g., epilepsy, substance abuse, pediatric brain tumors) who receive neurofeedback, the evidence includes case reports, case series, comparative cohorts, and small RCTs. Relevant outcomes are symptoms, functional outcomes, and quality of life. For these other disorders, including psychiatric, neurologic, and pain syndromes, the evidence is poor and several questions concerning clinical efficacy remain unanswered. Larger RCTs that include either a sham or active control are needed to evaluate the effect of neurofeedback for these conditions. The evidence is insufficient to determine the effects of the technology on health outcomes.

**Supplemental Information**

**Practice Guidelines and Position Statements**

**American Academy of Pediatrics**
The American Academy of Pediatrics (AAP) published 2011 clinical practice guidelines on the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder (ADHD) in children and adolescents.\(^{30}\) AAP stated that although electroencephalogram biofeedback is used clinically, it is not approved by the U.S. Food and Drug Administration for the treatment of ADHD and requires further research.

**National Institute for Health and Care Excellence**
The National Institute for Health and Care Excellence (NICE) issued a 2013 guidance on management and support of children and young people on the autism spectrum.\(^{31}\) NICE stated that the following treatments were considered but are not recommended: neurofeedback, auditory integration training to manage speech and language problems, omega-3 fatty acids to manage sleep problems, secretin, chelation, and hyperbaric oxygen therapy in any context.

**International Society for Neurofeedback & Research**
The International Society for Neurofeedback & Research published a 2011 position paper on standards of practice for neurofeedback and neurotherapy.\(^{32}\) Issues discussed included competency, qualifications of practitioners, scope of practice, informed consent, pretreatment assessment, standards for remote training, record keeping and billing, accountability, standards for practitioner training and qualifications to be trained, adequate supervision and coaching of training sessions, ethical advertising, standards for professional societies, and standards for those who sell and manufacture neurofeedback equipment.

**European Society for the Study of Tourette Syndrome**
Clinical guidelines on behavioral and psychosocial interventions for Tourette syndrome and other tic disorders were published in 2011 by the European Society for the Study of Tourette Syndrome. The guidelines considered neurofeedback experimental.\(^{33}\)

**American Psychological Association**
The American Psychological Association has provided general information on biofeedback (including neurofeedback) on its website (http://www.apaonline.org), stating that “Biofeedback helps treat some illness, may boost performance, helps people relax and is even used to help children with Attention Deficit-Hyperactivity Disorder.”\(^{34}\)

**American Academy of Child and Adolescent Psychiatry and American Psychiatric Association**
No information on neurofeedback was identified from the American Academy of Child and Adolescent Psychiatry or the American Psychiatric Association.

**U.S. Preventive Services Task Force Recommendations**
Not applicable.
Medicare National Coverage
There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.

Ongoing and Unpublished Clinical Trials
Some currently unpublished trials that might influence this review are listed in Table 1.

Table 1. Summary of Key Trials

<table>
<thead>
<tr>
<th>NCT No.</th>
<th>Trial Name</th>
<th>Planned Enrollment</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>NCT02397161</td>
<td>Improving Mental Attention, Timing of Muscle Activation and Reactive Balance Control in Children With Developmental Coordination Disorder: A Randomized Controlled Trial</td>
<td>172</td>
<td>Jul 2017</td>
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<tr>
<td>NCT02778360a</td>
<td>Effectiveness of a Personalized Neurofeedback Training Device (ADHD@Home) as Compared With Methylphenidate in the Treatment of Children and Adolescents With Attention-Deficit/ Hyperactivity Disorder: A Multicentre Randomized Clinical Study</td>
<td>179</td>
<td>Jul 2017</td>
</tr>
<tr>
<td></td>
<td>Does Neurofeedback and Working Memory Training Improve Core Symptoms of ADHD in Children and Adolescents? A Comparative, Randomized and Controlled Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCT02991781</td>
<td>Multidisciplinary Tools for Improving the Efficacy of Public Prevention Measures Against Smoking</td>
<td>140</td>
<td>Sep 2018</td>
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<tr>
<td>NCT01879644</td>
<td>Neurofeedback Study ADHD</td>
<td>120</td>
<td>Dec 2018</td>
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<tr>
<td>NCT02251743</td>
<td>Double-Blind 2-Site Randomized Clinical Trial of Neurofeedback for ADHD</td>
<td>140</td>
<td>Dec 2018</td>
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<tr>
<td>Unpublished</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>NCT01883765</td>
<td>Efficacy of a Neurofeedback Treatment in Adults With ADHD: a Double-blind Randomized Placebo-controlled Study</td>
<td>105</td>
<td>Sep 2015 (unknown)</td>
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<tr>
<td>NCT02146495</td>
<td>Pain and Sleep Quality Measures Before and After a Course of EEG Neurofeedback in Fibromyalgia Patients</td>
<td>200</td>
<td>Oct 2016 (unknown)</td>
</tr>
</tbody>
</table>

NCT: national clinical trial.
a Denotes industry-sponsored or cosponsored trial.

References


**Documentación for Clinical Review**
- No records required

**Coding**

This Policy relates only to the services or supplies described herein. Benefits may vary according to benefit design; therefore, contract language should be reviewed before applying the terms of the Policy. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement.

**IE**

The following services may be considered investigational.

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT®</td>
<td>90875</td>
<td>Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supportive psychotherapy); 30 minutes</td>
</tr>
<tr>
<td>CPT®</td>
<td>90876</td>
<td>Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supportive psychotherapy); 45 minutes</td>
</tr>
<tr>
<td>HCPCS</td>
<td>90901</td>
<td>Biofeedback training by any modality</td>
</tr>
</tbody>
</table>

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### Policy History

This section provides a chronological history of the activities, updates and changes that have occurred with this Medical Policy.

<table>
<thead>
<tr>
<th>Effective Date</th>
<th>Action</th>
<th>Reason</th>
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</thead>
<tbody>
<tr>
<td>09/30/2014</td>
<td>BCBSA Medical Policy adoption</td>
<td>Medical Policy Committee</td>
</tr>
<tr>
<td>04/01/2016</td>
<td>Policy revision without position change</td>
<td>Medical Policy Committee</td>
</tr>
<tr>
<td>04/01/2017</td>
<td>Policy revision without position change</td>
<td>Medical Policy Committee</td>
</tr>
</tbody>
</table>

### Definitions of Decision Determinations

**Medically Necessary:** A treatment, procedure, or drug is medically necessary only when it has been established as safe and effective for the particular symptoms or diagnosis, is not investigational or experimental, is not being provided primarily for the convenience of the patient or the provider, and is provided at the most appropriate level to treat the condition.

**Investigational/Experimental:** A treatment, procedure, or drug is investigational when it has not been recognized as safe and effective for use in treating the particular condition in accordance with generally accepted professional medical standards. This includes services where approval by the federal or state governmental is required prior to use, but has not yet been granted.

**Split Evaluation:** Blue Shield of California/Blue Shield of California Life & Health Insurance Company (Blue Shield) policy review can result in a split evaluation, where a treatment, procedure, or drug will be considered to be investigational for certain indications or conditions, but will be deemed safe and effective for other indications or conditions, and therefore potentially medically necessary in those instances.

### Prior Authorization Requirements (as applicable to your plan)

Within five days before the actual date of service, the provider must confirm with Blue Shield that the member's health plan coverage is still in effect. Blue Shield reserves the right to revoke an authorization prior to services being rendered based on cancellation of the member's eligibility. Final determination of benefits will be made after review of the claim for limitations or exclusions.

Questions regarding the applicability of this policy should be directed to the Prior Authorization Department. Please call (800) 541-6652 or visit the provider portal at www.blueshieldca.com/provider.

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. Blue Shield of California may consider published peer-reviewed scientific literature, national guidelines, and local standards of practice in developing its medical policy. Federal and state law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over medical policy and must be considered first in determining covered services. Member contracts may differ in their benefits. Blue Shield reserves the right to review and update policies as appropriate.