



An Independent Licensee of the Blue Cross Blue Shield Association

EVIDENCE-BASED CRITERIA
SECTION: MEDICINE

ORIGINAL EFFECTIVE DATE: 06/20/23
LAST REVIEW DATE: 08/06/24
CURRENT EFFECTIVE DATE: 08/06/24
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ARCHIVE DATE:

NEXT ANNUAL REVIEW DATE: 3RD QTR 2025

DIGITAL HEALTH TECHNOLOGIES: THERAPEUTIC APPLICATIONS

Non-Discrimination Statement and Multi-Language Interpreter Services information are located at the end of this document.

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Evidence-Based Criteria must be read in its entirety to determine coverage eligibility, if any.

This Evidence-Based Criteria provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide BCBSAZ complete medical rationale when requesting any exceptions to these guidelines.

The section identified as "Description" defines or describes a service, procedure, medical device or drug and is in no way intended as a statement of medical necessity and/or coverage.

The section identified as "Criteria" defines criteria to determine whether a service, procedure, medical device or drug is considered medically necessary or experimental or investigational.

State or federal mandates, e.g., FEP program, may dictate that any drug, device or biological product approved by the U.S. Food and Drug Administration (FDA) may not be considered experimental or investigational and thus the drug, device or biological product may be assessed only on the basis of medical necessity.

Evidence-Based Criteria are subject to change as new information becomes available.

For purposes of this Evidence-Based Criteria, the terms "experimental" and "investigational" are considered to be interchangeable.

BLUE CROSS®, BLUE SHIELD® and the Cross and Shield Symbols are registered service marks of the Blue Cross and Blue Shield Association, an association of independent Blue Cross and Blue Shield Plans. All other trademarks and service marks contained in this guideline are the property of their respective owners, which are not affiliated with BCBSAZ.



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Description:

“Digital health technologies” is a broad term that includes categories such as mobile health, health information technology, wearable devices, telehealth and telemedicine, and personalized medicine. These technologies span a wide range of uses, from applications in general wellness to applications as a medical device, and include technologies intended for use as a medical product, in a medical product, as companion diagnostics, or as an adjunct to other medical products (devices, drugs, and biologics). The policy includes only those digital technologies that are intended to be used for therapeutic application and meet the following 3 criteria: 1) Must meet the definition of "Software as a medical device" which states that software is intended to be used for a medical purpose, without being part of a hardware medical device or software that stores or transmits medical information. 2) Must have received marketing clearance or approval by the U.S. Food and Drug Administration (FDA) either through the *de novo* premarket process or 510(k) process or pre-market approval and 3) Must be prescribed by a healthcare provider.

Freepira® (Canary Breathing System) is a small breathing sensor with a tablet that is used twice a day for 17 minutes. Individuals are trained to use the Sensor with the Mobile App to measure and display their EtCO₂ level and RR and how different breathing habits affect EtCO₂ levels. Freepira was cleared by the FDA for use as a relaxation treatment for the reduction of stress by leading the user through guided and monitored breathing exercises. The device is indicated as an adjunctive treatment of symptoms associated with panic disorder and/or post-traumatic stress disorder (PTSD), to be used under the direction of a healthcare professional, together with other pharmacological and/or non-pharmacological interventions.

NightWare™ is a therapeutic platform using a proprietary AppleWatch® application. The app learns the wearer’s sleep patterns and customizes treatment to the individual. The app monitors the wearer’s heart rate and movement while sleeping and arouses the wearer with a vibration alert when a stress threshold is reached so as not to awaken the individual. Users wear the watch only while sleeping and not during the day. The NightWare digital therapeutic was cleared by the FDA with a breakthrough device designation and is indicated to provide vibrotactile feedback on an Apple Watch based on an analysis of heart rate and motion during sleep for the temporary reduction of sleep disturbance related to nightmares in adults 22 years or older who suffer from nightmare disorder or have nightmares from PTSD. It is intended for home use.



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Criteria:

- Freespira for the treatment of all indications is considered ***experimental or investigational*** when any **ONE** or more of the following criteria are met:
1. Lack of final approval from the appropriate governmental regulatory bodies (e.g., Food and Drug Administration); or
 2. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes; or
 3. Insufficient evidence to support improvement of the net health outcome; or
 4. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives; or
 5. Insufficient evidence to support improvement outside the investigational setting.

These indications include, *but are not limited to*:

- Panic disorder
- Post-traumatic stress disorder (PTSD)

- NightWare for the treatment of all indications is considered ***experimental or investigational*** when any **ONE** or more of the following criteria are met:

1. Lack of final approval from the appropriate governmental regulatory bodies (e.g., Food and Drug Administration); or
2. Insufficient scientific evidence to permit conclusions concerning the effect on health outcomes; or
3. Insufficient evidence to support improvement of the net health outcome; or
4. Insufficient evidence to support improvement of the net health outcome as much as, or more than, established alternatives; or
5. Insufficient evidence to support improvement outside the investigational setting.

These indications include, *but are not limited to*:

- Nightmare disorder
- Nightmares from PTSD



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Resources:

Literature reviewed 08/06/24. We do not include marketing materials, poster boards and non-published literature in our review.

1. American Psychiatric Association. Trauma- and stressor related disorders. *In Diagnostic and statistical manual of psychiatric disorders*. 5th ed. 2013.
2. Davenport ND, Werner JK. A randomized sham-controlled clinical trial of a novel wearable intervention for trauma-related nightmares in military veterans. *J Clin Sleep Med*. Feb 1 2023;19(2):361-369. doi:10.5664/jcsm.10338
3. Deacon B, Lickel J, Abramowitz JS. Medical utilization across the anxiety disorders. *J Anxiety Disord*. 2008;22(2):344-50. doi:10.1016/j.janxdis.2007.03.004
4. Evidence standards framework for digital health technologies. National Institute for Health and Care Excellence (NICE). 2021. Accessed March 10, 2024. <https://www.nice.org.uk/about/what-we-do/our-programmes/evidence-standards-framework-for-digital-health-technologies>
5. International Medical Device Regulators Forum (IMDRF) Software as a Medical Device (SaMD) Working Group. Software as a Medical Device (SaMD): Key Definitions. International Medical Device Regulators Forum (IMDRF). 2013. Accessed March 10, 2024. <http://www.imdrf.org/docs/imdrf/final/technical/imdrf-tech-131209-samd-key-definitions-140901.pdf>
6. Kaplan A, Mannarino AP, Nickell PV. Evaluating the Impact of Freespira on Panic Disorder Patients' Health Outcomes and Healthcare Costs within the Allegheny Health Network. *Appl Psychophysiol Biofeedback*. Sep 2020;45(3):175-181. doi:10.1007/s10484-020-09465-0
7. Kellner M, Muhtz C, Nowack S, Leichsenring I, Wiedemann K, Yassouridis A. Effects of 35% carbon dioxide (CO(2)) inhalation in patients with post-traumatic stress disorder (PTSD): A double-blind, randomized, placebo-controlled, cross-over trial. *J Psychiatr Res*. Jan 2018;96:260-264. doi:10.1016/j.jpsychires.2017.10.019
8. Meuret AE, Wilhelm FH, Ritz T, Roth WT. Feedback of end-tidal pCO2 as a therapeutic approach for panic disorder. *J Psychiatr Res*. Jun 2008;42(7):560-8. doi:10.1016/j.jpsychires.2007.06.005
9. Morgenthaler TI, Auerbach S, Casey KR, et al. Position Paper for the Treatment of Nightmare Disorder in Adults: An American Academy of Sleep Medicine Position Paper. *J Clin Sleep Med*. Jun 15 2018;14(6):1041-1055. doi:10.5664/jcsm.7178



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10. Muhtz C, Yassouridis A, Daneshi J, Braun M, Kellner M. Acute panicogenic, anxiogenic and dissociative effects of carbon dioxide inhalation in patients with post-traumatic stress disorder (PTSD). *J Psychiatr Res.* Jul 2011;45(7):989-93. doi:10.1016/j.jpsychires.2011.01.009
11. NightWare, Inc. De Novo Classification Request for NightWare Kit (Apple iPhone, Apple Watch, Apple iPhone Charging Cable, Apple Watch Charging Cable). U.S. Food and Drug Administration. 2020. Accessed March 10, 2024. https://www.accessdata.fda.gov/cdrh_docs/reviews/DEN200033.pdf
12. Ostacher MJ, Fischer E, Bowen ER, Lyu J, Robbins DJ, Suppes T. Investigation of a Capnometry Guided Respiratory Intervention in the Treatment of Posttraumatic Stress Disorder. *Appl Psychophysiol Biofeedback.* Dec 2021;46(4):367-376. doi:10.1007/s10484-021-09521-3
13. Tolin DF, McGrath PB, Hale LR, Weiner DN, Gueorguieva R. A Multisite Benchmarking Trial of Capnometry Guided Respiratory Intervention for Panic Disorder in Naturalistic Treatment Settings. *Appl Psychophysiol Biofeedback.* Mar 2017;42(1):51-58. doi:10.1007/s10484-017-9354-4

Coding:

HCPCS: A9291

History:

Date:

Activity:

Medical Policy Panel	08/06/24	Review with revisions
Medical Policy Panel	06/04/24	Review with no revisions
Pediatric Subspecialty Advisory Sub-Committee	02/15/24	Review with no revisions
Medical Policy Panel	06/20/23	Approved guideline
Pediatric Subspecialty Advisory Sub-Committee	05/18/23	Review with no revisions
Medical Director (Dr. Deering)	04/13/23	Development

Policy Revisions:

08/06/24 Updated: Resource section



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Non-Discrimination Statement:

Blue Cross Blue Shield of Arizona (BCBSAZ) complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex. BCBSAZ provides appropriate free aids and services, such as qualified interpreters and written information in other formats, to people with disabilities to communicate effectively with us. BCBSAZ also provides free language services to people whose primary language is not English, such as qualified interpreters and information written in other languages. If you need these services, call (602) 864-4884 for Spanish and (877) 475-4799 for all other languages and other aids and services.

If you believe that BCBSAZ has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability or sex, you can file a grievance with: BCBSAZ's Civil Rights Coordinator, Attn: Civil Rights Coordinator, Blue Cross Blue Shield of Arizona, P.O. Box 13466, Phoenix, AZ 85002-3466, (602) 864-2288, TTY/TDD (602) 864-4823, crc@azblue.com. You can file a grievance in person or by mail or email. If you need help filing a grievance BCBSAZ's Civil Rights Coordinator is available to help you. You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at: U.S. Department of Health and Human Services, 200 Independence Avenue SW., Room 509F, HHH Building, Washington, DC 20201, 1-800-368-1019, 800-537-7697 (TDD). Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>

Multi-Language Interpreter Services:

Spanish: Si usted, o alguien a quien usted está ayudando, tiene preguntas acerca de Blue Cross Blue Shield of Arizona, tiene derecho a obtener ayuda e información en su idioma sin costo alguno. Para hablar con un intérprete, llame al 602-864-4884.

Navajo: Díí kwe'é atah nilínigíí Blue Cross Blue Shield of Arizona haada yit'éego bína'idíílkidgo éí doodago Háida bíjá anilyeedígíí t'áadoo le'é yína'idíílkidgo beehaz'áanii hólp díí t'áa hazaadk'ehjí háká a'doowołgo bee haz'ą doo baqah ilínígóó. Ata' halne'ígíí kojí' bich'í' hodíilnih 877-475-4799.

Chinese: 如果您，或是您正在協助的對象，有關於插入項目的名稱 Blue Cross Blue Shield of Arizona 方面的問題，您有權利免費以您的母語得到幫助和訊息。洽詢一位翻譯員，請撥電話 在此插入數字 877-475-4799。

Vietnamese: Nếu quý vị, hay người mà quý vị đang giúp đỡ, có câu hỏi về Blue Cross Blue Shield of Arizona quý vị sẽ có quyền được giúp và có thêm thông tin bằng ngôn ngữ của mình miễn phí. Để nói chuyện với một thông dịch viên, xin gọi 877-475-4799.

Arabic:

إن كان لديك أو لدى شخص تساعد أسئلة بخصوص Blue Cross Blue Shield of Arizona، فلديك الحق في الحصول على المساعدة والمعلومات الضرورية بلغتك من دون أية تكلفة. للتحدث مع مترجم اتصل بـ 877-475-4799.

