



## FREQUENTLY ASKED QUESTIONS

Freespira, Inc.

### **Q: What is Freespira?**

**A:** Freespira is a breakthrough treatment for panic disorder, panic attacks, and PTSD that normalizes CO<sub>2</sub> and respiratory rates in a single 28-day treatment episode, resulting in significant reductions in symptoms, high remission rates and significantly lower total medical costs. While many patients with hard-to-treat symptoms of panic attacks and PTSD have failed on multiple treatments, new digital therapies can provide a new avenue to achieve remission from these paralyzing conditions. The key is a digital therapeutic that combines real-time breathing regulation training with the human touch of coaches. This solution teaches patients skills to help them manage their condition independently after completing a single 28-day treatment.

### **Q: Why is a new approach needed for treating panic attacks and PTSD?**

**A:** Current treatments are leaving hundreds of thousands, and perhaps millions, of patients with unresolved symptoms. A new approach to treatment can close the gap for patients who have failed on other therapies, need to augment their current treatment, or who are currently untreated for their condition. This approach must be supported by both clinical and real world data, and must be accessible to patients no matter where they live – which is exactly what Freespira makes possible.

### **Q: What is often misunderstood about panic disorder and PTSD?**

**A:** Panic Disorder (PD) and PTSD are both associated with carbon dioxide (CO<sub>2</sub>) hypersensitivity, causing chronic respiratory dysregulation. This hypersensitivity leads to panic attacks, bodily and psychological stress, dissociation, exaggerated startle reflex and posttraumatic flashbacks (in the case of PTSD). Some patients are more sensitive to CO<sub>2</sub> than others. In experimental lab settings, researchers have established that panic sufferers (and close relatives) react with pronounced fear and physiological distress when exposed to a single breath of air with high C O<sub>2</sub> concentration, compared to normal populations.

### **Q: Is Freespira recognized by the FDA?**

**A:** A first-in-class digital therapeutic, Freespira is cleared by the FDA to specifically treat the symptoms of panic attacks and PTSD. The treatment is not intended to treat other anxiety disorders or mental health conditions.

## **Q: How does the Freespira platform work?**

**A:** The Freespira platform combines a proprietary sensor, a nasal cannula, a connected tablet and proprietary software. The treatment measures respiration rate and exhaled CO<sub>2</sub> levels in real time, graphically displaying physiological data. It guides patients to regulate exhaled CO<sub>2</sub> levels and respiration. Freespira develops self-management skills that are learned and then available via ‘muscle memory’ long after the formal treatment has ended.

## **Q: How can Freespira be effective in just 28 days?**

**A:** Freespira can reduce or eliminate panic disorder symptoms in just 28 days because each session gives users the feedback they need to reach the breathing rate and the exhaled CO<sub>2</sub> targets. Freespira is extremely efficient: it takes just 28 days to complete, each session only lasts a few minutes, and it’s possible for users to train anywhere with the compact system. Guiding users through three sections (warm-up, training, and practice) solidifies the necessary skills to permanently reduce or eliminate symptoms.

## **Q: How frequently do patients have to use Freespira during the 28 day treatment?**

**A:** The twice daily, 17-minute treatment normalizes breathing patterns, which has been shown to eliminate or reduce panic and PTSD symptoms in multiple clinical trials. The Freespira platform includes telehealth training/coaching services throughout the 28-day treatment protocol to guide the patient to maximum benefit.

## **Q: What happens during each 17-minute session?**

**A:** During a 17-minute session, the patient inhales and exhales in synch with a rising and falling audio tone, while changing their breath volume to move and keep their exhaled CO<sub>2</sub> values in the normal zone, guided by a graphical display on the Freespira tablet. Weekly telehealth coaching provides support and guidance for breathing techniques that help patients hit the breathing targets.

## **Q: What are the limitations of medications and psychotherapy?**

**A:** While psychotherapy is useful for some patients with panic attacks and PTSD, it is not accessible or sufficient for all patients. The long duration of treatment can pose obstacles for affordability as well as adherence over time, High dropout rates are reported for talk therapy, particularly the exposure-based therapies most commonly used to address both panic and PTSD. Long wait times for appointments and poor provider access in certain regions of the country, particularly in rural areas, can create barriers for many patients. In addition, recovery may fall short of remission, leaving patients with reduced but still life-impairing symptoms.

**Q: What are the side effects of medication therapy?**

**A:** Medication therapy includes several FDA-approved therapies, including several anti-depressants approved for panic and PTSD, and benzodiazepines for short-term use with panic. However, long term use of benzodiazepines increases risk of abuse/addiction, and individuals with panic and PTSD have elevated rates of lifetime substance use disorder. Shortcomings of the anti-depressants include side effect burden which can include weight gain, sexual dysfunction, and nausea. These side effects as well as the several weeks often needed to show benefit can compromise adherence.