



FOR STATE OPIOID TREATMENT PROGRAMS

INTRODUCING SPARROW ASCENT

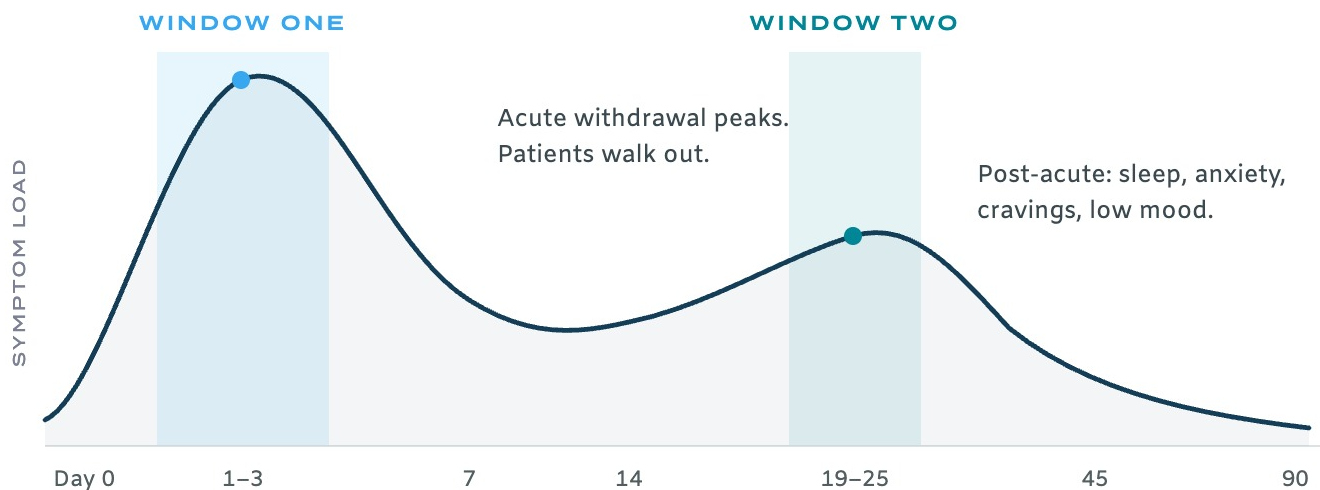
Evidence-based treatment patients can access, and a non-drug option they can take home

Sparrow Ascent is FDA-cleared and studied in RESTORE, a NIDA-funded, double-blind, randomized, multi-site trial. It works as an adjunct to the medication your programs already dispense — nothing to schedule, nothing to divert.

Sparrow Ascent™

Transcutaneous auricular neurostimulation (tAN®)
FDA-cleared for opioid withdrawal

Two windows decide whether recovery ever starts.



Symptom load across the first 90 days of treatment. Horizontal axis compressed to show both windows.

Methadone

Full agonist. Long half-life, and the hardest of the family to come off.

Naltrexone

Full antagonist. A 30-day injection that blocks the receptor.

~80% relapse before 90 days

Buprenorphine

Partial agonist plus antagonist. Needs moderate withdrawal before induction.

Lofexidine

Non-opioid alpha-2. The only approved option that is not an opioid.

~95% relapse within a year

Gap one. Buprenorphine induction waits for moderate withdrawal, or it precipitates worse. The patient suffers on purpose. Sparrow Ascent can go on the moment they walk in.

Gap two. Agonist therapy occupies the receptor. It does not help the brain resume making its own endorphins, which is what window two depends on. Patients face that window between visits, at home.

Two trials: FDA clearance and NIDA-funded evidence

STUDY ONE – THE SEMINAL TRIAL

Device alone. Basis of FDA clearance.

Medication was withheld until each patient crossed a COWS of 13 — mean baseline about 15 — then the device went on, running daily across a five-day detox window.¹

AT 60 MINUTES

45.9%

mean reduction in withdrawal severity (COWS) — three times the FDA's 15% bar. 51.8% at 120 minutes.

FULL RELIEF

1 in 3

patients had no measurable withdrawal score at 60 minutes.

BY DAY FIVE

42.9%

had a meaningful drop in depression (PHQ-9); 35.7% in PTSD symptoms (PCL-5).

STUDY TWO – RESTORE

Device as an adjunct to medication.

NIDA-funded: 100 patients, double-blind, randomized, sham-controlled, multi-site — level-one evidence. Seven days of inpatient detox, then 90 days outpatient on extended-release naltrexone with or without the device. The first trial to show neurostimulation working as an adjunct to medication for opioid use disorder.²

ACUTE DETOX

3.1×

more likely to complete acute detox on stimulation plus lofexidine than sham plus placebo.

TREATMENT RETENTION

6.9×

more likely to stay in treatment beyond 20 days with stimulation in both phases.*

RELAPSE

18%

reduction in relapse during post-acute treatment versus naltrexone alone.

CRAVINGS

3.5×

more likely to see cravings drop by the end of acute detox.

Greater odds of improvement versus sham: cravings with lofexidine 3.2× (OCS), anxiety 2.2× (GAD-7), depression 2.0× (PHQ-9), recovery capital 1.7× (BARC-10). *The retention finding was statistically significant (χ^2 $p < 0.001$); the other odds ratios are directional and did not reach significance in this sample.

HOW IT WORKS



Controller and single-use ear electrode array.

1

Delivers patient-controlled stimulation through the skin on and around the ear.

2

Targets branches of the trigeminal and vagus nerves, raising parasympathetic tone against hyper fight-or-flight.

3

Activates central brain regions to release endorphins that fill the vacant opioid receptors.

Why it helps opioid treatment programs Fit to the clinic you already run



Evidence you can report

FDA clearance and a NIDA-funded level-one RCT are the evidence tier your board and state reviewers already expect.



A non-drug option

No DEA scheduling, no diversion risk, and nothing to dispense. It works alongside methadone or buprenorphine.



Works between visits

Patients take the device home and continue therapy on their own, from induction through long-term maintenance.



Codes already in place

CMS HCPCS codes have already been obtained, so adding Sparrow Ascent requires no new benefit category.

Accessible evidence-based treatment. Safer days for the people using it.

Both state priorities in one device: level-one evidence and FDA clearance on the access side, and a drug-free option with nothing to schedule or divert on the health and safety side.

CONNECT WITH OUR TEAM

Learn how Sparrow Ascent can help you and your patients.

Brian Burke

VP of Sales, Public Sector

Brian.Burke@sparkbiomedical.com

Tom Futch

EVP, Growth

Tom.Futch@sparkbiomedical.com



[SPARKBIOMEDICAL.COM](https://www.SPARKBIOMEDICAL.COM)

References Figures cited inside

- 1 Pierson CJ, Khodaparast N, McWade MA, Kuo YF, Houghton DC, Rodriguez SL, Korschgen VL, Cunningham KA, Wilkes DM. The protocol for a randomized, sham-controlled trial of transcutaneous auricular neurostimulation for chronic pain and opioid withdrawal symptoms during a 4-day opioid taper for adults in the United States. *Trials*. 2025 Oct 16;26(1):421. doi: 10.1186/s13063-025-09171-4. PMID: 41102821; PMCID: PMC12532841.
- 2 DeRoo, A. et al., (2026). Transcutaneous Auricular Neurostimulation as an Adjunct to Medications for Opioid Use Disorder. *Drug and Alcohol Dependence*. Under review.

Sparrow Ascent™ is FDA-cleared for use as an aid to reduce the symptoms of opioid withdrawal. Sparrow™, tAN®, and Spark Biomedical® are marks of Spark Biomedical, Inc. Refer to labeling for indications, contraindications, warnings, and instructions for use.