CLINICALLY PROVEN, DRUG-FREE SINUS RELIEF

TIWIC ClearUP®

There's a better way to treat sinonasal inflammation symptoms of sinus pain, pressure, congestion, and sinus headache.







DOCTOR RECOMMENDED BIOELECTRONIC SINUS DEVICE

"It's very exciting to have this whole new form of treatment using extremely safe neuromodulation as a way to address the needs of the patient."



-DR. ALAN B. GOLDSOBEL, MD

Clinical Professor, University of California San Francisco Allergy & Asthma Associates of Northern California

What is ClearUP?

ClearUP is a small, non-invasive bioelectronic handheld device. ClearUP provides drug-free treatment through precise, targeted relief that the patient controls and works with their body's natural pathways to reduce symptoms of sinus and nasal inflammation. The device is reusable and rechargeable.

Why is ClearUP preferred?

Tivic ClearUP is an alternative to pharmaceuticals to alleviate symptoms of inflammatory sinus conditions without pills, drowsiness, or other medication side effects. No mess, no spray, no flush, and can be used as often as the patient needs.

	⊂ τι∾ιc ClearUP®	
lo chemical side effects	 Image: A second s	
lot addictive	 ✓ 	
lo mess, no cleaning required	 ✓ 	
verage annual costs	\$83	

How ClearUP works to treat sinus pain, pressure, sinus headaches, and congestion.

Although ClearUP's microcurrent technology should be self-administered by patients, physicians can provide an introduction to how the device is used and offer guidance in a clinical setting.

When a user glides ClearUP along the cheek, nose, and brow bone, ClearUP emits gentle microcurrent stimulation.

This process stimulates the nerves that pass through the sinus passages. Vibration guides users to the optimal treatment points to relieve sinus pain, pressure, and congestion.

ClearUP takes about 5 minutes total to administer (2.5 minutes on each

side of the face). Recommended treatment is at least twice per day for two weeks.







Two Microcurrent Clinical Trials have been conducted to assess ClearUP's safety and efficacy.

In the first double-blind trial^{Δ} at Stanford Sinus Center, participants using an active ClearUP device vs. a sham treatment reported significant improvement in sinus pain.

In the second trial^{$\Delta \Delta$}, subjects receiving a 5-minute treatment in office followed by 4 weeks of at-home use also saw marked improvements.





Subjects reported a rapid reduction (-35%) in congestion.





Absolute Change Numeric Rating Scale (Pain) Statistical Test: Repeated measures one-way ANOVA with Dunnett correction

for multiple comparisons, **p < 0.01, ***p < 0.001, ****p < 0.001

A t Stanford Sinus Center, Palo Alto, Calif. | Publication: Maul, X.A., Borchard, N.A., Hwang, P.H., and Nayak, J.V. (2019, April). Microcurrent technology for rapid relief of sinus pain: a randomized, placebocontrolled, double-blinded clinical trial in International Forum of Allergy and Rhinology (IFAR) (Vol. 9, No. 4, Pp. 352-356) | Principal investigator: Javakar Nayak, MD, PhD, Associate Professor and Director of Rhinology Research, Stanford University

A At Allergy and Asthma Associates of Santa Clara Valley Research Center, Santa Clara, Calif. | Publication: In preparation for peer review | Principal investigator: Alan Goldsobel, MD, Adjunct Associate Professor, Stanford University. Note: Congestion data has not been reviewed by the FDA.

74% **SUCCESS**

ClearUP was proven to reduce sinus pain in almost 3 out of 4 participants.

of participants preferred ClearUP to other allergy treatments.

82%

Mechanisms of Action: Two Principal Pathways

1. Vasoconstriction

- · The blood vessels that supply the sinus and nasal mucosa are surrounded by sympathetic nerve fibers.
- · Electrical stimulation of sympathetic nerve fibers has been shown to promote release of norepinephrine.¹⁻³
- · Norepinephrine facilitates smooth muscle contraction around the blood vessels, leading to vasoconstriction.⁴
- · Vasoconstriction of arterioles and venous vessels, in the context of sinonasal inflammation, results in smaller vessel diameter, relieving pressure on the nerves and reducing resistance to air flow.
- Over time, repeated vasoconstriction can reduce edema and extravasation of inflammatory immune cells, contributing to reduced symptom severity.

2. Trigeminal Nerve Stimulation

- The trigeminal nerve the ophthalmic nerve (V_1) and maxillary nerve (V_2) is responsible for relaying sensory information to the brain.
- Electrical microcurrent delivered in the periorbital regions stimulates subcutaneous fibers of these branches.
- Neuromodulation of the trigeminal nerve pathway may alleviate sensations of pain and pressure.

Trigeminal **Nerve Branches** (V1.V2)

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PEER-REVIEWED PUBLICATIONS

- Microcurrent technology for rapid relief of sinus pain: a randomized, placebo-controlled, double-blinded clinical trial.
- Prospective trial examining safety and efficacy of microcurrent stimulation for the treatment of sinus pain and congestion. Goldsobel, A. B., Prabhakar, N., & Gurfein, B. T. (2019). Bioelectronic medicine, 5(1), 1-9



SPECIFICATIONS:

Output current: AC-coupled square wave. Maximum current density at 500 ohms is 3.2 mA/cm2. Maximum voltage at 500 ohms +/-3V. Power source: Rechargeable lithium-ion AAA cell, +3.7V @ .3AH, safety PCB. Dimensions: Approximately L 3.3 x W 1.8 x H 1 (inch). Weight: Approximately 55 grams.

IMPORTANT SAFETY INFORMATION:

Warnings and Precautions (For Specific Populations)

 Consult your physician for safety of use if you have implanted electrostimulation devices including a pacemaker, a DBS (Deep Brain Stimulation) device, hearing or visual implant devices (e.g. cochlear implant, auditory brainstem implant, retinal prostheses).

 Do not use if you currently have abnormal cranial nerve or other neurological findings or symptoms that would require prompt medical attention. · If you have suspected or diagnosed heart disease, you should follow precautions recommended by your physician. • Do not use on broken skin or a wound of any kind.

Warnings and Precautions (For Specific Medical Environments)

 Care should be taken to apply stimulation in the presence of electronic monitoring equipment including cardiac monitors and ECG alarms due to potential electromagnetic interference. • Do not use device near active high frequency (HF) surgical equipment or in the radio frequency (RF) shielded room of a Magnetic Resonance Imaging (MRI) scanner or near RF emitting equipment. Adverse Events: A minority of subjects (<3% in clinical studies) experienced temporary skin irritation.

Drug Interactions: Can be taken with sinus medications safely.

Indications and Usage: ClearUP is intended to be used for the temporary relief of sinus pain associated with allergic rhinitis and for the temporary relief of moderate to severe congestion in adults 18+.

RESOURCES

1. Mandel, Yossi, et al. "Vasoconstriction by electrical stimulation: new approach to control of non-compressible hemorrhage." Scientific Reports 3 (2013)

- 2. Franco, O.S., et al. "Effects of different frequencies of transcutaneous electrical nerve stimulation on venous vascular reactivity." Brazilian Journal of Medical and Biological Research 47.5 (2014): 411-418.
- 3. Malm, L. "Stimulation of sympathetic nerve fibres to the nose in cats." Acta otolaryngologica 75.2-6 (1973); 519-526.
- 4. Fischer, Laurent, et al. "Adrenergic and non-adrenergic vasoconstrictor mechanisms in the human nasal mucosa." Rhinology 31.1 (1993): 11-15.

Maul, X. A., Borchard, N. A., Hwang, P. H., & Nayak, J. V. (2019, April). International Forum of Allergy & Rhinology (Vol. 9, No. 4, pp. 352-356).



ClearUP as a drug-free treatment option

For more information about ClearUP as an option for your patients to relieve sinus inflammation symptoms or to place an order, visit:

tivichealth.com

ABOUT TIVIC HEALTH

Tivic is a commercial health tech company advancing the field of bioelectronic medicine. Tivic's patented technology platform leverages stimulation on the trigeminal, sympathetic, and vagus nerve structures. Tivic's non-invasive and targeted approach to the treatment of inflammatory chronic health conditions gives consumers and providers drug-free therapeutic solutions with high safety profiles, low risk, and broad applications. Tivic's first commercial product ClearUP is an FDA approved, awardwinning, handheld bioelectronic sinus device. ClearUP is clinically proven, doctorrecommended, and is available through online retailers and commercial distributors.







For more information and FAQs, scan this QR code 25821 Industrial Blvd., Ste. 100 Hayward, CA 94545 **tivichealth.com**