

RESOURCE CENTRAL

Treating Sleep Apnea

CPAP: The most effective treatment for obstructive sleep apnea (OSA), in which the tongue and soft palette relax against the back of the throat and block the airway, is continuous positive airway pressure (CPAP). This treatment involves a bedside machine that blows a stream of air through a tube into a mask worn by the sleeper. The air holds the airway open, splitting it, and allows the sleeper to breathe normally.



A different kind of sleep-disordered breathing known as central sleep apnea can result from congestive heart failure, stroke, high altitude, certain medications, or other problems that weaken the signals from the brain instructing the muscles of the diaphragm to contract and draw air into the lungs. Some people with central sleep apnea may benefit from ordinary CPAP, but others may require a more sophisticated type of machine that delivers bi-level positive airway pressure (BPAP). With BPAP, two separate pressures are used: a stronger stream of air is delivered into the airway when the sleeper inhales and a weaker stream when the sleeper exhales, simulating the breathing cycle. This encourages the sleeper to take more air into the lungs.

Mandibular Advancing Devices: A person with OSA can wear a special device resembling a football mouth guard that repositions the lower jaw forward slightly, discouraging the tongue from relaxing against the back of the throat. In addition to reducing mild to moderate OSA, these devices also reduce snoring significantly. The device does not help people who have central sleep apnea, however.

Surgery: Several surgical procedures have been shown to help OSA:

- ► Surgically inserting palatal implants—synthetic rods embedded in the soft palate, stiffening it—can sometimes help prevent the soft palate from collapsing. This surgery is primarily helpful for snoring.
- Uvulopalatopharyngoplasty and laser-assisted uvulopalatopharyngoplasty involve surgery to remove tissue from the back of the mouth, widening the airway. This should be offered only after a careful assessment. In addition, since the tissue of young patients will become thinner and more collapsible as they age, this procedure does not guarantee that OSA will not recur.
- Maxillary mandibular advancement is a surgical procedure that involves fracturing the lower and upper jaw and moving them forward. This produces a longerlasting change, making it more appropriate for younger patients who are good surgical candidates and are absolutely unable to tolerate their CPAP machines.
- A less popular surgical option is glossectomy, which involves surgery to remove a portion of the tongue, increasing the size of the airway.
- ▶ Other more radical surgeries, such as opening a hole in the trachea in an effort to improve airway flow, are reserved for patients with life-threatening OSA who cannot tolerate positive pressure therapy and/or have failed other surgical options.

Hypoglossal Nerve Stimulation: One therapy in development involves implanting a device known as a hypoglossal nerve stimulator under the skin of the upper chest, connected to a wire that stimulates the hypoglossal nerve during sleep. This maintains the tongue's muscle tone, preventing it from relaxing against the back of the throat.

Assistance Directory

For a full listing of patient organizations, go to neurologynow.com

HELP FOR ALL NEUROLOGIC DISORDERS

American Academy of Neurology Web site aan.com/patients 1-800-879-1960

CaringBridge® (free, personalized Web sites to support your health journey) Caringbridge.org 651-452-7940

National Institute of Neurological Disorders and Stroke ninds.nih.gov

Well Spouse Association wellspouse.org 1-800-838-0879

ALZHEIMER'S DISEASE

Alzheimer's Association alz.org 1-800-272-3900

Alzheimer's Disease Education and Referral Center alzheimers.org 1-800-438-4380

Alzheimer's Foundation of America alzfdn.org

1-866-232-8484

Association for Frontotemporal Dementias theaftd.org

1-866-507-7222

AUTISM

Autism Society of America autism-society.org 1-800-3AUTISM (1-800-328-8476)

Autism Speaks, Inc. autismspeaks.org 212-252-8584

Global and Regional Asperger Syndrome Partnership

grasp.org

1-888-474-7277

CEREBRAL PALSY

United Cerebral Palsy ucp.org

1-800-872-5827

DEPRESSION AND MENTAL DISORDERS

National Alliance on Mental Illness nami.org 1-800-950-NAMI (6264)

DYSTONIA

American Dystonia Society 310-237-5478 dystonia.us

Dystonia Foundation dystonia-foundation.org 1-800-377-DYST (1-800-377-3978)

Spasmodic Torticollis spasmodictorticollis.org 1-888-445-4588

EPILEPSY AND SEIZURES

Citizens United for Research in Epilepsy (CURE) **CUREepilepsy.org**; 312-255-1801

Epilepsy Foundation epilepsyfoundation.org 1-800-332-1000 Epilepsy Therapy Project epilepsy.com/epilepsy_therapy_project 540-687-8077

SeizureTracker
SeizureTracker.com
info@seizuretracker.com

HEADACHE / MIGRAINE

American Headache Society Committee for Headache Education (ACHE) achenet.org 856-423-0043

Migraine Research Foundation migraineresearchfoundation.org 212-249-5402

National Headache Foundation headaches.org 888-NHF-5552 (888-643-5552)

HUNTINGTON'S DISEASE

Hereditary Disease Foundation hdfoundation.org 212-928-2121

Huntington's Disease Society of America hdsa.org 1-800-345-HDSA (1-800-345-4372)

HYDROCEPHALUS

Hydrocephalus Association hydroassoc.org 1-888-598-3789

National Hydrocephalus Foundation **nhfonline.org** 1-888-857-3434

INFECTIOUS DISEASE

Encephalitis Global encephalitisglobal.org

National Meningitis Association nmaus.org 866-FONE-NMA (366-3662)

MULTIPLE SCLEROSIS

MSFriends msfriends.org 1-877-MSFRIENDS

MSWorld msworld.org

Multiple Sclerosis Association of America msassociation.org 1-800-532-7667

Multiple Sclerosis Foundation msfocus.org; 1-800-225-6495

National Multiple Sclerosis Society nationalmssociety.org 1-800-FIGHT-MS (1-800-344-4867)

MYASTHENIA GRAVIS

Myasthenia Gravis Foundation of Greater NY Inc. Myasthenia Gravis Alliance **MGdirect.org** 1-800-643-0808

Myasthenia Gravis Foundation of America myasthenia.org 1-800-541-5454

NEUROMUSCULAR DISEASES

ALS Association alsa.org 1-800-782-4747

Charcot-Marie-Tooth Association charcot-marie-tooth.org 610-499-9264 1-800-606-CMTA (2682)

Kennedy's Disease Association kennedysdisease.org 559-658-5950

Moebius Syndrome Foundation moebiussyndrome.com 1-660-834-3406

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Resources for People with Tinnitus

Acoustic Neuroma Association: anausa.org

American Academy of Otolaryngology: entnet.org/HealthInformation/tinnitus.cfm

American Speech-Language-Hearing Association: asha.org/public/hearing/treatment/tinnitus_manage.htm

American Tinnitus Association: ata.org

National Institute on Deafness and Other Communication Disorders:

www.nidcd.nih.gov/health/hearing/Pages/tinnitus.aspx



Muscular Dystrophy Association mda.org

1-800-FIGHT-MD (1-800-344-4863)

Neuropathy Association neuropathy.org 212-692-0662

Spastic Paraplegia Foundation, Inc. sp-foundation.org 1-877-773-4483

PARKINSON'S DISEASE & MOVEMENT DISORDERS

American Parkinson Disease Association apdaparkinson.org 1-800-223-2732

Foundation for PSP, CBD and Related Brain Diseases curepsp.org

1-800-457-4777

International Essential **Tremor Foundation** essentialtremor.org 1-888-387-3667

The Michael J. Fox Foundation for Parkinson's Research michaelifox.org 1-800-708-7644

Lewy Body Dementia Association lbda.org 404-935-6444

National Ataxia Foundation ataxia.org 763-553-0020

National Parkinson Foundation parkinson.org 1-800-327-4545

Parkinson's Disease Foundation pdf.org

1-800-457-6676

The Parkinson's Institute and Clinical Center thepi.org

1-800-655-2273

Tremor Action Network tremoraction.org 510-681-6565

SLEEP

National Sleep Foundation sleepfoundation.org 202-347-3471

STROKE

American Stroke Association: A Division of American Heart Association strokeassociation.org 1-888-4STROKE (478-7653)

National Stroke Association stroke.org 1-800-STROKES (787-6537)

TOURETTE SYNDROME

Tourette Syndrome Association tsa-usa.org 718-224-2999

TRANSVERSE MYELITIS

International Disability Coalition disabilitycoalition.org

Transverse Myelitis Network transversemyelitis.ning.com

Transverse Myelitis Association Myelitis.org 614-766-1806

TRAUMA

Brain Injury Association of America biausa.org 1-800-444-6443

