

Surgical Solutions for Obstructive Sleep Apnoea: A Path to Better Breathing

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DESCRIPTION

Obstructive Sleep Apnoea (OSA) is a chronic condition characterized by repeated interruptions in breathing during sleep. These interruptions, caused by the partial or complete blockage of the upper airway, can lead to poor sleep quality and an increased risk of serious health issues such as cardiovascular disease, hypertension, and diabetes. While lifestyle changes and non-invasive treatments like Continuous Positive Airway Pressure (CPAP) machines are often effective, surgery remains a viable option for patients who do not respond to conventional therapies. This article delves into the surgical interventions available for OSA and their potential benefits.

Understanding obstructive sleep apnoea

OSA occurs when the muscles in the throat relax excessively during sleep, causing the airway to narrow or close. This results in reduced oxygen levels and frequent awakenings throughout the night. Common symptoms include loud snoring, gasping for air during sleep, daytime fatigue, and difficulty concentrating. Risk factors for OSA include obesity, older age, male gender, and anatomical abnormalities such as a deviated septum or enlarged tonsils.

Surgery is typically considered for OSA patients under the following circumstances:

Ineffectiveness of CPAP therapy: Despite being the gold standard treatment, CPAP can be intolerable for some due to discomfort or compliance issues.

Anatomical abnormalities: Structural issues like a deviated nasal septum, enlarged tonsils, or a recessed jaw may necessitate surgical correction.

Severe OSA cases: When the condition poses significant health risks and other treatments have failed, surgery may be required.

Types of surgical interventions

A variety of surgical procedures are available to address the underlying causes of OSA. The choice of surgery depends on the patient's specific anatomy and the severity of their condition.

Uvulopalatopharyngoplasty (UPPP): UPPP is one of the most common surgeries for OSA. It involves removing excess tissue from the throat, including the uvula, soft palate, and portions of the pharynx. This widens the airway and reduces obstructions. Although effective for some, UPPP is not suitable for all patients and may not eliminate the need for CPAP.

Maxillomandibular Advancement (MMA): MMA is a more invasive procedure that repositions the upper and lower jaws to enlarge the airway. By moving the jaws forward, the surgery creates more space in the throat, reducing blockages. This procedure is highly effective but requires a longer recovery period.

Genioglossus Advancement (GA): GA focuses on advancing the attachment of the tongue muscle to prevent it from collapsing backward during sleep. This surgery is often combined with other procedures for greater efficacy.

Hypoglossal Nerve Stimulation (HNS): HNS is a relatively new and innovative treatment. A small device is implanted under the skin, stimulating the hypoglossal nerve, which controls tongue movement. This stimulation keeps the airway open during sleep. HNS is minimally invasive and suitable for patients who cannot tolerate CPAP.

Septoplasty and turbinate reduction: For patients with nasal obstructions, septoplasty corrects a deviated septum, while turbinate reduction shrinks swollen nasal tissues. These procedures improve airflow and may complement other OSA treatments.

Tonsillectomy and adenoidectomy: Enlarged tonsils and adenoids are common causes of OSA, especially in children. Their removal can significantly improve airway patency and alleviate symptoms.

Benefits of surgical treatment

Surgery for OSA can provide numerous benefits, including:

Improved sleep quality: Restorative sleep reduces daytime fatigue and enhances overall well-being.

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Reduced risk of comorbidities: Treating OSA lowers the risk of associated health issues, such as heart disease and stroke.

Enhanced quality of life: Many patients report improved mood, energy levels, and productivity post-surgery.

Risks and considerations

As with any surgical procedure, OSA surgeries carry potential risks, including:

Pain and discomfort: Recovery periods vary, and some procedures involve significant postoperative pain.

Complications: Bleeding, infection, and adverse reactions to anesthesia are possible.

Incomplete resolution: Surgery may not completely eliminate OSA or the need for additional treatments.

Post-surgery care and follow-up

Recovery and results vary depending on the type of surgery. Patients are advised to:

Follow medical guidance: Adhere to postoperative instructions, including medication and activity restrictions.

Attend follow-up appointments: Regular check-ups help monitor progress and address any complications.

Maintain a healthy lifestyle: Weight management, regular exercise, and avoiding alcohol and sedatives can enhance surgical outcomes.

CONCLUSION

Surgery for obstructive sleep apnoea offers hope for patients who struggle with this debilitating condition and find little relief from conventional treatments. By addressing the root causes of airway obstruction, surgical interventions can restore restful sleep and improve overall health. However, the decision to undergo surgery should be made after thorough evaluation and consultation with a sleep specialist. With advancements in surgical techniques and technology, the prospects for effective treatment and better quality of life continue to grow for OSA patients.