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INSPIRE IMPLANT FOR SLEEP APNEA | DALLAS FORT WORTH

The Inspire implant is a new technology that effectively treats moderate to severe sleep apnea. The device is surgically implanted via two incisions. One incision is just below the jawline and the other incision is just below the collarbone. It works by stimulating a nerve called the hypoglossal nerve, causing a gentle contraction of the muscles under the chin during sleep. It is these muscles that are very important for keeping the airway open during sleep. The device also has a tiny sensor implanted in the chest wall that allows it to coordinate the timing of the stimulation with a patient's natural breathing rhythm.

The Inspire implant has been approved by the FDA for around 5 years and has been implanted in well over 10,000 patients. Studies show excellent results with dramatic decrease in apnea on objective sleep studies and patient satisfaction rates around 95%. Also, the device is now covered by all major insurance plans including Medicare, Blue Cross Blue Shield, United Healthcare, Cigna, and Aetna.

Patients must meet the following criteria:

- Diagnosis of moderate to severe sleep apnea (with an apnea-hypopnea index between 15 and 65). The sleep study must also show less than 25% central apnea. Central apnea occurs when the brain is not signaling the diaphragm to breathe on time. It is uncommon for patients with obstructive sleep apnea to have a significant degree of central apnea so meeting this criteria is usually not a problem. The sleep study must be within the last two years.
- BMI must be less than 35 (or in some cases 32) depending on the insurance plan requirements. This means that patients who are significantly obese will not qualify for the Inspire implant. BMI is a ratio of height to weight and we will calculate your BMI for you or you can use an online BMI calculator.

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- Patients must have tried CPAP in the past and be unwilling or unable to use it regularly.
- Patients must have a separate procedure called sleep endoscopy. Patients are taken to the operating room and given anesthesia medicines to induce sleep. Then the surgeon will place an endoscopic camera in the nose to inspect the throat structures while the patient is snoring. We are checking to make sure that there is not a circular-shaped collapse of soft tissue in the throat. Most patients who meet the other criteria as listed above will also pass this test but it is an important procedure that must be performed before we can get insurance authorization for the actual implant procedure.

When patients are deemed to be good candidates for the Inspire implant the procedure will be scheduled. It is an outpatient procedure that takes about 2-3 hours to complete. Patients will stay in the recovery room an additional 1-2 hours but can go home the same day in most cases. There will be an ACE bandage wrapped around the neck to protect the neck incision and apply some gentle pressure for the first 2 days. There will be some soreness at the surgical sites just under the jaw and below the collarbone. Both incisions should be kept dry for 48 hours and then it is okay to gently wash both areas. Regular Tylenol is sufficient to control post-operative pain in most cases. Patients may resume a regular diet after the surgery.

Patients should take the following precautions after surgery:

- No strenuous exercise or heavy lifting for 2 weeks
- No traveling out of the city for 2 weeks
- Avoid extending the right elbow above the right shoulder for 4 weeks (to allow the chest muscle to heal without straining it)
- Patients should start doing gentle neck range of motion exercises after the first 2 days

The device will be activated at a follow-up visit about 30 days after the surgery. This allows time for the nerve to fully recover before we start stimulating it with the device. Patients will be instructed on how to turn the device on using a remote control. Patients will also be able to gradually increase the strength of the stimulation using the remote control over the next several weeks. Finally, we will obtain an overnight sleep study in a sleep lab to verify that the apnea is successfully treated and do any fine-tuning controls of the device for optimal comfort and effectiveness. The battery life of the Inspire implant is around 11 years. After 11 years, the battery can be exchanged with a second surgery, which takes about 1 hour.

The Inspire implant procedure is a very safe and effective treatment for obstructive sleep apnea. The risk of complications is very low but patients should be aware of the risks, as with other types of surgery. The most common adverse effect is discomfort with activation

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of the device (less than 2% of patients). Other possible complications include pain, bleeding, tongue weakness, lip weakness, numbness, wound infection, scarring, and need for device removal.

For more information, including testimonials and Q&A please visit www.inspiresleep.com.