

HYPOGLOSSAL NERVE STIMULATOR (INSPIRE) May 2023

DEVICE

"Inspire" is a device that senses an obstructive apneas and then sends a signal to the hypoglossal nerve through a wire. It activates the nerve, which causes the base of the tongue to move forward. The device, wires that sense the apnea and the wire from the device to the nerve are implanted under the skin. It is remotely controlled.

CANDIDATES/INDICATIONS (Varies from FDA, Insurance and Medical societies)

Its primary indication for use is **failure to be able to use CPAP**. Problems with insomnia, restless legs or other sleep disorders must be controlled before being considered for Inspire. The obstructive apnea rating (apnea hypopnea index or AHI) on diagnostic testing should be between 15 and 65. Weight should be a BMI of under 32. BMI varies by height. For a 5'11" person a BMI of 32 is 225 lbs. Some insurances will allow a slightly higher BMIs. You must be older than 18 years of age. It is indicated when apnea obstruction occurs at the base of the tongue.

COST

A rough estimate of the cost of the device, its implantation, testing and physician visits will be between forty and fifty thousand dollars.

INSURANCE COVERAGE

"Inspire" is a second line therapy and insurance companies only approve those who have failed other forms of treatment.

PROCESS

If you meet the criteria for the device, you will be evaluated to see if the device will correct your apnea. The evaluation steps include a facility based sleep study, a sedated endoscopy of your upper airway and provider visits. Many will not fit the type of obstruction that the device will correct and will not be candidates.

If you are a candidate, then implantation, physician review and repeat testing to insure appropriate function will be required. These steps include surgery, a post activation facility based sleep study and provider visits.

The overall time from initial consideration to successful activation is about 5 to 6 months. Medical follow up currently is recommended every 6 to 12 months.

RESULTS AFTER IMPLANTATION

The goals of treating obstructive apnea are to reduce the AHI to less than 5 and to improve the quality of sleep. CPAP will achieve AHIs < 5 a very high percentage of the time. The Inspire device will reduce the AHI to less than 5 in approximately 50% of recipients. The rest will have a reduction in their AHIs but not to normal levels. Standard therapies such as CPAP may still be needed.

OTHER CONSIDERATIONS

"Inspire" is a man made product with batteries. Wires can break. Wires cannot easily be removed. Batteries or new wires may be required in the future. There are a limited number of experienced physicians available to deal with the device. Other devices may still be needed and recommended to control your apnea condition.