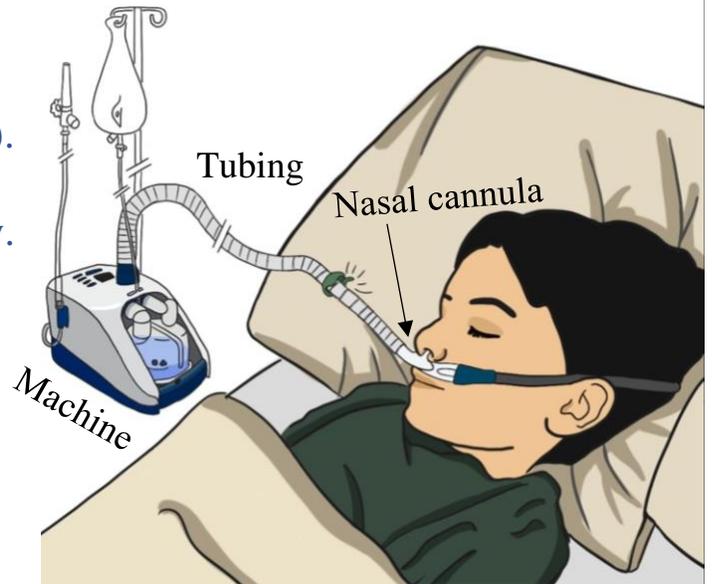




Heated High Flow Therapy for Treatment of Obstructive Sleep Apnea in Children

Heated high flow air nasal cannula (HFNC) is a therapy that may be used to treat obstructive sleep apnea (OSA). OSA is a breathing problem during sleep caused by collapse of the airway. The temporary blockage causes a fall in oxygen levels and poor sleep quality. HFNC gives high flow rates of warmed air through nasal prongs which may prevent airway collapse and improve breathing during sleep.



What is obstructive sleep apnea?

OSA is a common issue that happens in 1 to 5% of children. It affects your child's breathing during sleep. OSA is caused by a temporary blockage of the airway that leads to disrupted sleep and a fall in oxygen levels. Symptoms of OSA include snoring, gasping, or pauses in breathing during sleep. This can result in difficulties during the day such as fatigue, hyperactivity, and difficulties in learning and memory.

How is obstructive sleep apnea treated?

The treatment for OSA may include surgery to remove your child's tonsils and adenoids or medications like nasal sprays. If these treatments do not improve your child's OSA, there are several other treatment options such as continuous positive airway pressure (CPAP).

CPAP is a common therapy for OSA. It is a device that delivers pressured air through a tight-fitting mask to keep the airway open. It must be worn every night to be effective and works for many children.

However, some children find it difficult to wear every night. HFNC can be used for OSA treatment when children have tried CPAP and it is not a good option for them.

How does heated high flow therapy work?

HFNC therapy gives high flow rates of warmed air that prevent the airway from collapsing. This therapy makes breathing easier while asleep. The warmed air is delivered by nasal prongs that sit inside the nostrils. The prongs may be kept in place over the course of the night with straps that wrap around the head and around the ears. The use of HFNC is currently being studied in children as a comfortable and easy to use alternative therapy to CPAP for treating OSA.



What happens if heated high flow therapy is recommended for my child?

Your child may be recommended HFNC therapy to treat OSA. Your child will first get fitted with nasal prongs and headgear that are comfortable. Your child will then have a sleep study using the HFNC therapy to see if there is improved breathing with therapy. The flow rate, temperature, and level of humidity can be adjusted during the sleep study to find the best settings for your child. Your child's health care provider will give you the results of the sleep study and provide further recommendations about the use of HFNC therapy at home.

How is heated high flow therapy used in the home?

Your health care team will write a prescription for HFNC with the best settings for your child. You will then purchase a HFNC machine from a local home care company to use in the home. It may take time for your child to get comfortable with HFNC. You can help your child get used to HFNC by including it in the normal bedtime routine.

In order for HFNC to be effective, the headgear should fit properly and the nasal prongs must be in the right position. You can speak with the health care team about tips and tricks to keep the nasal prongs in place if you are having difficulty with this.

Is heated high flow therapy covered by insurance?

HFNC therapy is not currently covered by government health insurance. It may be covered by some private insurance companies. If you have private insurance, please speak with them for more information about possible coverage. Your doctor can write a letter supporting the need for HFNC therapy to help with insurance coverage.

Does my child need to use heated high flow therapy every night?

HFNC therapy should be used every time your child is asleep. Like medication, it needs to be used consistently in order to work.

Please note that HFNC therapy requires a power outlet to work because it does not have an internal battery. Please speak with your health care team about what kind of respiratory support your child may need when you do not have access to a power source.

How long will my child need to use heated high flow therapy?

Many children will need long-term treatment for OSA. Your child will continue to be followed by a health care provider who will re-evaluate the need for HFNC therapy.

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Please ask your health care provider for more information about treatment of obstructive sleep apnea.

Find more information about obstructive sleep apnea here:

<https://www.aboutkidshealth.ca/Article?contentid=1918&language=English>

Find more information about tonsillectomy with obstructive sleep apnea here:

<https://www.aboutkidshealth.ca/Article?contentid=1019&language=English>