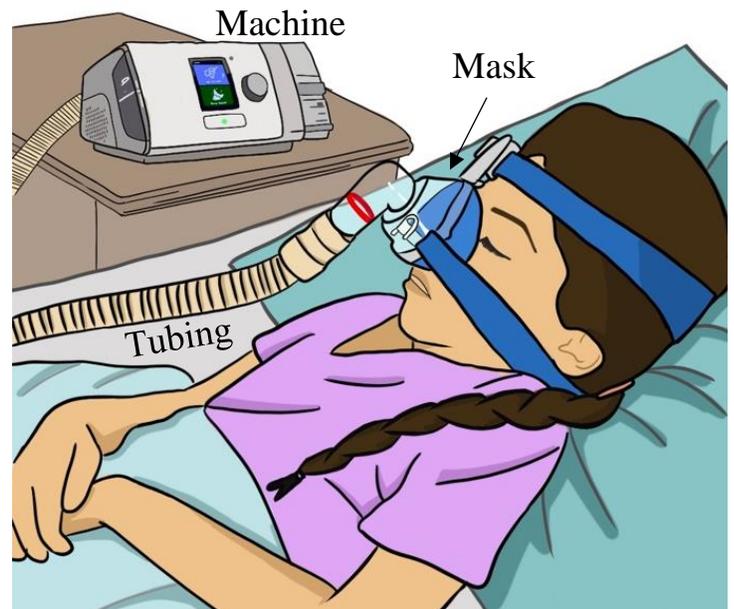




## Positive Airway Pressure for Treatment of Obstructive Sleep Apnea in Children

Positive airway pressure (PAP) is a device that delivers pressured air through a tight-fitting mask 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. PAP 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 percent 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 a surgery to remove your child's tonsils and adenoids or medications like nasal sprays. If these treatments do not improve your child's OSA, PAP therapy may be recommended.

### What is positive airway pressure therapy?

PAP is often used to treat OSA. PAP 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.

There are two different sets of pressures to breathe:

- 1) Continuous PAP (CPAP) delivers a continuous level of pressure when breathing in and out.
- 2) Bilevel PAP (BiPAP) delivers different pressures when breathing in and out.

There are different types of masks that can be used to deliver PAP. Some masks cover only the nose and other masks may cover both the nose and the mouth. The masks are secured in place over the course of the night with straps that wrap around the head and behind the ears. This is called headgear.



### **What happens if positive airway pressure is recommended for my child?**

Your child may be recommended PAP therapy to treat OSA. Your child will first get fitted with a mask and headgear that are comfortable. You will go home with this equipment to use for short periods during the day. Your child should wear the mask while awake and doing an enjoyable activity like reading or watching a television show. This will help your child get comfortable with the mask so that they can progress to using the mask at night while asleep.

Once your child is able to comfortably wear the PAP therapy all night, your child will have another sleep study with the PAP therapy to see if there is improved breathing while asleep. The sleep study will work the same as the first one, except a sleep technologist will adjust the pressures of the PAP therapy 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 all the information that you need so that your child can have PAP in your home to wear every night during sleep.

### **How is positive airway pressure used in the home?**

Your health care team will write a prescription for PAP therapy with the best settings for your child.

If your child is prescribed CPAP, you will purchase a CPAP machine from a local home care company to use in the home. Some of the costs may be covered if you receive government assistance or have private insurance.

If your child needs a BiPAP device, you will get it at no cost to you. However, you will need to pay for replacement masks, filters, and tubing.

### **Does my child need to use positive airway pressure therapy every night?**

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

### **How can I help my child get comfortable with PAP at home?**

Most children take time to become comfortable with PAP. Have your child go to sleep at the same time each night and build the PAP device into their normal bedtime routine.

In order for PAP to be effective, the headgear should fit properly and the mask must be in the right position throughout the night. Talk to your equipment provider if the mask isn't comfortable as there are likely several options available.

You might find it helpful to use a reward system for each night your child wears the mask. Younger children may like a sticker chart whereas older children may benefit from other awards. Your child's progress will be monitored by the healthcare team.

### **How long will my child need to use positive airway pressure 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 PAP therapy.

Authors: Lena Xiao MD, Indra Narang MD

Illustration by Amy Chan BSc

Affiliations: Division of Respiratory Medicine, The Hospital for Sick Children, Toronto, Canada

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>