

Randwick Children's Emergency has moved

The Children's Emergency Department and several hospital services at Randwick have moved into our new building.

Learn more



CPAP (continuous positive airway pressure) therapy factsheet



Introduction

Continuous positive airway pressure (CPAP) is a type of breathing support therapy used to stop the airways from being obstructed during sleep. It is used to treat a condition called obstructive sleep apnoea (OSA). In OSA, your child's body can forget to breathe for periods of about 10-30 seconds while they are asleep. Symptoms of OSA can include:

- waking up during the night
- bedwetting
- hyperactivity
- poor concentration
- being too tired during the day.

OSA can be caused by conditions like:

- large tonsils and adenoids – glands at the back of the throat and nose
- cleft palate – a condition where the roof of the mouth does not form together properly during pregnancy
- muscle weakness
- childhood obesity
- narrow airways
- lung disease.

The CPAP machine treats OSA by pushing pressurised air through a mask and into the lungs, opening the airways, and letting your child breathe normally without snoring.

CPAP therapy is like another therapy called bi-level positive airway pressure, or Bi-level therapy.

In bi-level therapy, the air pressure is higher when breathing in than it is when breathing out. In CPAP, the air pressure stays the same.



About the devices

Before starting CPAP therapy

A sleep medicine doctor will see your child to decide whether they need to use CPAP. When your child starts CPAP, they will be fitted with a mask. Your child can practice wearing the mask without the machine for short periods during the day to help them get used to the feeling.

Your child might be admitted to the hospital for 3-4 nights so their treatment team can set the machine up, check how your child is doing with using the machine, and give you information and education to help manage the CPAP.

You may be eligible for government support to help with the cost of your child's medical equipment, including a discount on electricity to run the machine. Speak to your child's doctor for more information.

CPAP machine

CPAP is used while your child is asleep. This includes naps and nighttime sleeping. The CPAP machine must be used every time your child sleeps. The machine must travel with your child anywhere they sleep overnight, including the emergency department.

The CPAP machine is made up of the following parts:

- **machine** – the device that pressurises the air
- **hose** – a hollow tube that connects the machine to the mask, allowing air to flow through
- **mask** – connected to the hose and sits over the mouth, nose, or both, creating a seal. There are many different types and shapes of masks that your child can try
- **filter** – to remove dust and debris from the air
- **humidifier** – helps to keep the air moist so your child is comfortable and their airways do not dry out and bleed.

You may be able to rent a machine from your child's hospital to try before you buy one.

Speak to your child's treating team about hiring and buying CPAP equipment.

Most CPAP machines will plug into the wall and do not run on batteries. If there is a power failure, your child's machine will not work.



Care of the device

You will need to take good care of your child's CPAP machine and mask to make sure it works properly and lasts for as long as possible.

When cleaning, do not use products that could damage the equipment, including:

- bleach
- alcohol
- Chlorine-based mixtures
- conditioner
- moisturiser
- strong household cleaners.

Clean the body of the CPAP machine by wiping it gently with a clean, damp cloth.

Mask cushion and frame

Your child's CPAP mask should last over 12 months or longer if cared for properly.

Wipe down the mask with a damp cloth after every use, and wash by hand at least once a week.

Hand washing instructions:

1. follow the instructions given by your child's treatment team or the equipment manufacturer to take the mask apart
2. hand-wash the cushion and frame in warm water with a mild dishwashing detergent
3. let the parts air-dry away from direct sunlight
4. check for damage before putting the mask back together.

Headgear

To clean the headgear:

1. take the headgear off the frame
2. gently hand wash in warm, soapy water
3. rinse thoroughly in clean water only, no soap or bleach
4. let the parts air-dry away from direct sunlight
5. check for damage before putting the mask back together.

Tubing

Clean the tubes once a week.

To clean the tubes:

- follow the instructions given by your child's treatment team or the equipment manufacturer to take the tubing apart
- hand-wash the tubing and connectors using soapy water
- rinse thoroughly with clean water
- hang the tubing up to air-dry away from direct sunlight
- when the tubing is dry, check for holes or splits before putting it back together.

If the tubing is damaged, it must be replaced before using the machine again.

Filters

Read the instructions for your machine to see whether there is a disposable or reusable filter. Cleaning instructions for reusable filters can change depending on your machine.

To clean the filter:

1. remove at least once a week and gently brush off any visible dust or debris
2. rinse and squeeze the foam filter under running water
3. wash the foam filter in warm, soapy water and air-dry away from direct sunlight
4. when the filter is completely dry, place it back into the machine.

Filters need to be replaced every 6 months.

Bacteria filter

If your child's mask has a bacteria filter, it must be replaced every 7-10 days or sooner when it becomes dark in colour.

If you are renting a machine, you will need to use another bacterial filter that sits between the machine and the tubing. These filters need to be changed every 14 days.

Humidification chamber

The humidification chamber must be emptied every morning and washed at least once a week.

The chamber should be filled using distilled water. This water is available from the chemist and some supermarkets.

If your child uses CPAP with a mask and distilled water is not available, you can use boiled water that has been cooled down.

To empty the humidification chamber:

1. pour out any remaining water and rinse under flowing water
2. refill with fresh water before use each night.

To clean the humidification chamber, wash in warm water with mild dishwashing detergent and air-dry out of direct sunlight.

Some tips on looking after the humidification chamber include:

- always empty the chamber before moving the CPAP machine, as spilled water can destroy the electrical circuits and damage the machine
- tip out any excess water that collects in the tubes, and change the settings to stop water collecting
- change the filter immediately if it gets wet
- sit the chamber next to the bed, lower than the level of your child's head, to stop water flowing through into your child's airways
- check the water levels before turning the machine on, making sure it is topped up to the maximum level each night
- use the lowest humidifier setting when your child's room is cool and dry
- use a higher humidifier setting when your child's room is warm and moist.



Cleaning schedule

Follow the cleaning schedule below to make sure your child's equipment works well and lasts for as long as possible.

1. every day – wipe down mask, empty and refill humidification chamber
2. every week – clean mask, tubing, and humidification chamber and brush off filter
3. every 2 weeks – replace the anti-bacterial filter
4. every 6 months – replace the reusable filter.



Management

Length of time your child will need to use CPAP

The length of time your child uses a CPAP machine will depend on why they are using it.

If they have large adenoids or tonsils, they might use the CPAP machine only until surgery to remove the glands. In most cases, surgery will fix OSA, and the CPAP won't be needed afterwards.

Some children might still have OSA after surgery and will need to use CPAP long-term.

Children using CPAP long-term will have appointments with their sleep or respiratory specialist and sleep studies every 6-12 months. This is to help your child's treatment team check the progress of their sleep breathing.

When to seek help

If your child is breathing rapidly, noisily, or seems to be having difficulty breathing, you should go to the nearest emergency department as soon as possible.

Call an ambulance on triple zero (000) or present to the nearest emergency department if your child is showing signs of breathing issues like:

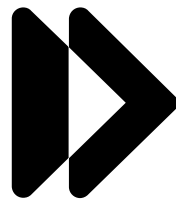
- rapid breathing
- noisy breathing
- a dusky blue colour around the lips
- stopping breathing.



Resources and more information



Australian Government



**Services
Australia**

Essential Medical Equipment Payment

Information on a yearly payment to help with energy costs to run essential medical equipment or heating or cooling used for medical needs.

Visit website



**Service
NSW**

NSW Life Support Energy Rebate

The NSW Life Support Energy Rebate helps pay electricity bills for people who need, or have someone living with them who needs, to use approved energy-intensive life support equipment at home.

Visit website

Disclaimer

This factsheet is provided for general information only. It does not constitute health advice and should not be used to diagnose or treat any health condition.

Please consult with your doctor or other health professional to make sure this information is right for you and/or your child.

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