

FACTSHEET



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Humidification for CPAP and Bi-Level machines

When we breathe through our nose or mouth, the air is warmed and moistened by the lining of our nose and mouth. When children use a CPAP or Bi-level machine, the air enters their nose quickly and this does not allow time for it to be warmed or to collect moisture.

Why use humidification?

Humidification is used to stop drying of the nasal and airway lining. Humidification may help improve comfort by keeping the airways moist, so your child can tolerate the machine better. Humidification can also help children who have dry mucus membranes or nose bleeds. Humidification must always be used when CPAP or Bi-level is delivered via tracheostomy.



Set-up

The humidifier chamber is either attached to the machine or added as a separate device. This will depend on the type of machine your child has. Distilled water (supplied by chemists and some supermarkets) is the best water to use in the chambers and can also be used for children with a tracheostomy. If distilled water is not available, boiled and cooled tap water can be used for children who use CPAP/Bi-level via a mask. When filling the water in the chamber, the level of water must be below the maximum line in the humidification chamber.

The chamber should sit next to the bed. It must be at a level lower than your child to stop water flowing through the tube to your child. Check the level of water in the chamber each time before you turn the machine on. Top up the chamber to the marker, as needed.





Settings

Some humidifiers have a range of settings. A low setting should be used when the room air is cool and dry and a higher setting can be used in warm moist air. Most often the humidifier is set at level '3'. If too much water collects in the tube, try adjusting the humidification setting as shown by your sleep support person. If you are unable to do this, please contact the Sleep Medicine Service on the numbers given in this factsheet.

Care and maintenance

The water in the chamber must be changed every day. The water chamber should be cleaned with warm soapy water once a week and rinsed thoroughly before refilling with fresh water.

Moving the machine and humidifier

The humidifier must be emptied before moving the CPAP or Bi-level machine. This is important as movement can cause water to spill from the chamber back into the machine. This will destroy the electrical circuits and damage the machine. If you think this has happened, turn the machine off immediately and contact the Sleep Medicine Service for advice.

Trouble shooting

If water builds up in the tubing, the machine should be stopped. Remove the mask from your child and the other end of the tubing from the machine and tip the extra water out. If there is a filter on the tubing, check it carefully to make sure it is not wet. Replace the filter, if needed. Contact the Sleep Medicine Service or manufacturer if problems continue.

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Acknowledgement for images

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