



University Hospitals Birmingham
NHS Foundation Trust



Humidifier Instructions for Non-Invasive Ventilation (NIV)

Building healthier lives

UHB is a no smoking Trust

To see all of our current patient information leaflets please visit
www.uhb.nhs.uk/patient-information-leaflets.htm

You have been supplied with a humidifier to use with your NIV treatment to improve symptoms of mouth and throat dryness at night.

What is it?

A humidifier is a specifically designed plastic unit which usually clips on to the side or front of your machine. It holds water which is heated by the unit and supplied via a tube to your NIV mask. This helps with mouth and throat dryness. You may also be supplied with a heated tube for use with the humidifier depending on the model of your NIV machine. There are two models of NIV: the ResMed Stellar 150 and ResMed Lumis 100. The Lumis 100 is sometimes supplied with a heated tube. The physiologist will tell you which model you have been supplied with.

Your NIV Model _____ **Heated tube** Yes/No

There are some important safety precautions to take note of when using the humidifier.

Safety Precautions

- Use the NIV & humidifier on a flat, stable surface next to the bed
- Use either **distilled or filtered water** in the humidifier. You can boil water and let it cool as an alternative. Using water direct from the tap usually results in a build-up of lime scale in the humidifier, which significantly shortens the life of the unit
- Use fresh water every day as using the same water each day increases the risk of respiratory infection

-
- The humidifier unit should only be connected or disconnected from the NIV machine when the water tub is empty
 - Do not use any additives (e.g. scented oils or perfumes) in the water. These may reduce the output of the humidifier and damage the water tub
 - When transporting the humidifier, turn off the power, remove the water tub and empty and dry completely. The Stellar humidifier has a release button situated underneath the humidifier unit and the Lumis only has a water chamber.
 - Do not run the humidifier dry i.e. without water in the tub
 - Do not use on an aircraft as turbulence may cause water to enter the NIV unit

Setting up the humidifier

1. Align the NIV and humidifier unit with the NIV machine at the rear, push the humidifier unit onto the machine until it clicks into place.
2. Connect the power supply but do not switch on
3. Connect the tube to the air outlet and the mask to the free end. The Stellar NIV does not use a heated tube.
4. Lift the lid front
5. Remove the water tub
6. Fill the tub through the centre hole up to the maximum water level. mark; never overfill

-
7. Return the tub to the unit
 8. Close the flip lid and ensure it clicks into place
 9. Turn on the power

Setting up the humidifier Lumis 100

1. Remove the side cover from the machine by pressing down the clip on the top right hand side of the device as you look at it straight on and gently pulling it away from the machine.
2. Fully open the water chamber using the clasp on the right hand side by the water fill lines. Fill it with water to the maximum water level. Do not use hot water.
3. Close the water chamber and insert into the side of the machine itself where the side cover has been removed from. There is no other electrical unit required.

Adjusting the humidity level

Stellar NIV

The level ranges from off (0) to 5 (IIIII). This is adjusted with the manual dial on the top of the humidifier, where 1 is the lowest humidity setting and 5 is the highest humidity setting.

Lumis 100 NIV

The level ranges from 1 to 8 and can be adjusted at any time to find the most comfortable setting, where 1 is the lowest humidity setting

and 8 is the highest humidity setting:

1. On the home screen the 'My Options' is automatically highlighted, press the dial on the right of the device and enter this menu.
2. Turn the dial to highlight 'Humidity Level' on the screen and press the dial.
3. Turn the level up or down by turning the button to the level you require.
4. Press the dial again and the change to humidity level is saved and the machine is returned to the 'My Options' menu. Press the button that is a picture of a house under the screen to return to the home screen.
5. Should you decide not to use the humidifier gently pull the water chamber from the device and replace it with the side panel which was originally removed. Please note the NIV machine will not work without a side panel or water chamber in place.

Maintenance

Warnings

- Do not immerse the device or power cord in water
- Always unplug the device before cleaning and make sure it is dry before plugging back in
- Take care when handling the unit. The water and the water tub base may both be hot. Allow 10 minutes for the heater plate and any excess water to cool

Daily cleaning

Wash the tub lid, plate and base in warm water using a mild detergent.

Rinse thoroughly in clean water and allow them to dry away from direct sunlight.

Monthly cleaning

Peel back the seal from the flip lid and wash in warm water using a mild detergent.

Wipe the exterior of the humidifier with a damp cloth and a mild detergent.

Other cleaning

To remove lime scale in the water tub, use a solution of one part household vinegar to 10 parts water.

The humidifier can be washed in a dishwasher on a delicate or glassware cycle on the top shelf only. Do not use a cycle where the temperature exceeds 65oC.

Other Maintenance

Inspect the water tub and seal; stop using the unit and contact the Lung Function and Sleep department if any component is leaking or cracked or the seal becomes torn.

Common problems:

Too much moisture in the tube/mask

This can be caused by having the humidification setting up too high, in which case turn it down a notch at a time until problem is alleviated. Placing the unit lower than the bed height can also help. Placing the tube (non-heated) under the bed covers can also help with excess condensation.

Condensation can also be caused by a cold bedroom temperature;

turning the heating up by a few degrees may help.

Still dry on humidification

Turn the level up one notch at a time until adequate moisture is delivered.

Build-up of deposits on the heated plate

Use the lime scale cleaning procedure detailed above.



The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm or call 0121 371 4323.

Lung function and Sleep

Queen Elizabeth Hospital Birmingham
Mindelsohn Way, Edgbaston
Birmingham, B15 2GW
Telephone: 0121 627 2000
