

Non-invasive Ventilation (NIV)

Non-Invasive Ventilation (NIV) is used to support patients' breathing. It can be used at home while patients are sleeping. NIV provides oxygen and air pressure that helps open up the lungs (alveoli), improving the gas exchange of oxygen and carbon dioxide between the blood and lungs.



Usage and Maintenance

1. Assemble the circuit to the mask and the NIV machine if not already done. One end of the circuit will be connected together with the mask and the other end of the circuit will be connected to the NIV machine. Do not occlude/ block air inlet!
2. If you require extra oxygen along with NIV usage, please insert the oxygen connector port between the end of the circuit and the machine.
3. If you are using a humidifier along with the NIV machine, please use cooled boiled water for humidification. Keeping the humidifier completely dry is important because water in the NIV machine can damage it.

Usage and Maintenance (cont'd)

4. Connect plug to outlet. Once the machine is connected to an electrical outlet, it will turn on automatically.
5. Remove bottom clips of the mask. While holding the mask towards patient's face, slide the mask over patient's head and secure the clips on each side of the mask. Do not occlude holes on mask!
6. To adjust to tighten straps, remove straps from velcro on both sides and pull both sides of the straps together to tighten. Avoid pulling only one side of the strap as this would potentially lead to the mask being out of place or applying unnecessary pressure on one side of patient's face.
7. The mask should be tightened enough to not cause any leaks, while staying mindful not to cause discomfort to patient.
8. To start the Bilevel Positive Airway Pressure (BiPAP) machine, press the centre button on the Phillips Respironic Dreamstation BiPAP machine or the start/ stop button on the ResMed Lumis BiPAP machine once.
9. After starting the machine, check for leaks by using your hands to feel for air coming out from the sides of the mask or listen for a "farting" sound. If either are present, tighten the straps gently until air leak is minimal. It is normal for some air to escape from the front of the mask, as that is where the patient exhales.
10. To stop the machine, press the start/ stop button once.
11. You can stop the machine and remove the mask when the patient needs to get out of bed for toilet breaks during the night.

Cleaning / Maintenance

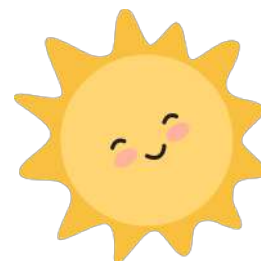
- Use a damp cloth or towel to clean the interior and exterior of the mask every morning. Avoid using items containing alcohol to clean the mask as this will cause the rubber on the mask to harden and crack.



- If mask is visibly soiled, you may use gentle soap and water to wash the mask and leave the mask to air dry completely before connecting it back to the circuit.



- Tubing's can also be washed using gentle soap and water once a month or when visibly soiled. Remember to let the tubing's air dry completely before connecting it back to the machine as water that is introduced into the machine can spoil the machine.



- The exterior of the machine can be cleaned using a damp cloth every morning.

- The BIPAP machine should undergo regular maintenance annually, please contact the vendor directly to schedule this maintenance. Please only use cooled boiled water to refill the humidifier and change the water of the humidifier every morning.



- For any repair, maintenance or replacing of the BIPAP machine and the mask, please contact the vendor directly.



Monitoring Pressure Sores

One of the common things that would happen with improper mask fitting would be the appearance of pressure sores around the nose bridge and the around the laugh lines. These are usually formed when the mask is strapped too tightly to the patient's face.

(Key Tip: Always make sure the mask is not leaking air and is not too tightly strapped!).

A common way to prevent this is to put a hydrocolloid type dressing at the commonly affected areas.

Frequently Asked Questions

Q: When should I use my NIV machine?

Use it whenever you are sleeping at night and even during the day when you are taking a nap.

Q: How many hours at least in a day should I be using my NIV machine?

It depends on your sleeping routine. There is no minimum hours of use recommended. However, it is important to use it consistently every day.

Q: I am going on a vacation to another country, will I need to use it when I'm on vacation?

Patients who are prescribed to use the NIV most often is recommended to use it every day, including vacation.

Q: Am I able to use the disposable NIV mask the hospital provided me with together with my home NIV machine?

No, it is not suggested to use hospital NIV mask with your home NIV machine because hospital masks do not have an exhalation port to allow patients to exhale, only home NIV mask do.

WH Sleep Lab Contact (Mon to Fri, 8:30am to 5:30pm): 6361 3754

Contributed by Respiratory Care, Allied Health Services

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