

A close-up photograph of a young child with dark hair, smiling and looking slightly to the right. The child is wearing a yellow and brown giraffe-patterned pediatric nasal mask. The mask has a clear plastic nasal cannula and a yellow tube extending downwards. The child is wearing a red and blue striped shirt. The background is a soft, out-of-focus indoor setting.

PHILIPS
RESPIRONICS

Wisp

Pediatric nasal mask

Caregiver guide



Support for families

The Wisp pediatric mask has a fun, child-friendly giraffe print and soft, fabric materials. We have created a fantasy world featuring our cartoon giraffe character, Jacky, who interacts with his friends Sami the Seal and Tucker the Turtle. The purpose of this playful theme is to help ease the child into therapy and make him or her comfortable with the mask.

Caregivers can access demonstration videos to help them use the mask, while the child can enjoy the Jacky Giraffe adventure cartoon.



DreamMapper* (www.dreammapper.com) is a mobile and web application that keeps you actively informed about the child's therapy. You can find information on things like mask fit and therapy hours, and watch demonstration videos and Jacky's animated cartoon.



The animated cartoon and demonstration videos can also be accessed on the Philips Respironics YouTube channel, philips.to/wisppediatric.

*To see which therapy devices are compatible with DreamMapper, visit www.dreammapper.com/compatible.



Dear parents and caregivers,

We are glad that this guide has reached you. We know that managing and navigating a child's therapy can be daunting at times. There are a lot of new things to learn—a mask, a machine, supplies, and practically a whole dictionary of new terminology! It is our hope that this guidebook will answer many of your questions and explain the information in a clear and concise way. It is a support tool to help you, the caregiver, feel more comfortable using and maintaining the child's new mask and supplies.

This guide is *not* intended to replace the Instructions for Use packaged with the child's mask and equipment. The Instructions for Use contain many important safety warnings and instructions that should be read and followed. This guide expands on the information found there and provides additional details to address some of the questions that caregivers may have.

Any problems encountered during treatment should be discussed with the child's doctor.

We hope that this guide will help ease the transition into non-invasive ventilation therapy.

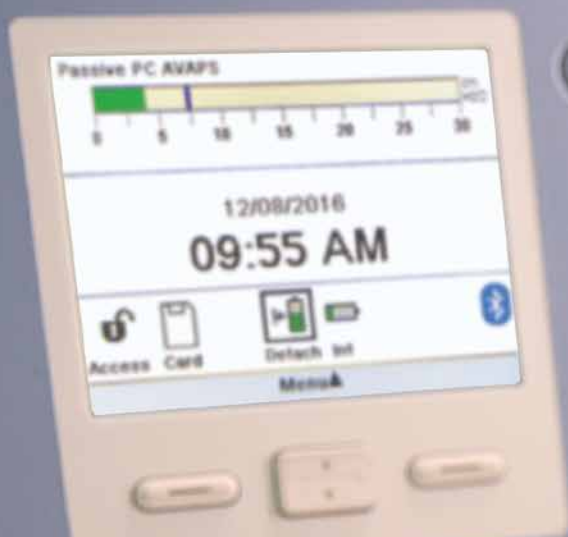
Sincerely,

Cynthia C. White

Cyndi White, MSc, RRT-NPS, AE-C, CPFT, FAARC

Megan L King

Megan King, Global Product Manager, Philips Respironics



Introduction to Non-invasive ventilation

- If you are reading this guide, there is a good chance that the child may need non-invasive ventilation (NIV) now or in the near future.
- The type of NIV therapy received depends on the child's specific condition and individual needs. The child's physician will evaluate and determine the proper treatment.
- Therapy will be given through a small machine that will be used to help support the child's breathing (refer to the image below).


Benefits

- NIV helps to keep the child's airway open and prevent it from collapsing or becoming obstructed.
- Preventing obstruction and airway collapse allows the child to get more oxygen which is important for their brain and growing body.
- NIV uses two levels of pressure to help support air in and out of the lungs and remove waste through effectively breathing in and out.
- The "back-up rate" is a set breathing rate that keeps the child's breathing at a certain number of breaths per minute. This feature will activate only if the child's breathing falls below the set rate.





Learn your way around the Wisp pediatric mask



The **headgear** wraps around the head and attaches to the frame. It holds the mask in place and keeps it stable.

The **frame** rests against the face and holds the cushion in place on the mask.

The **tubing management loop** is an optional feature that enables the tube to be positioned over the head and away from the front of the body.

The **tube wrap** is an optional part that enhances the giraffe-print theme.



The **cushion**, which is available in different sizes, fits over the nose to deliver therapy.

The **headgear clips** allow the mask to be removed without readjusting the headgear tabs each time.

The **quick release tabs** on the elbow allow the child to be temporarily disconnected from the machine, such as to use the bathroom in the middle of the night.

The **elbow and tube** connect the mask to the hose on the therapy device. The tube provides extra length for the child to change positions while sleeping.



Spotlight on the **Leak Correction Dial**



The innovative Leak Correction Dial on the child's Wisp pediatric mask enables you to fix small leaks. It should always be positioned straight down, as if pointing at the 6 on a clock, when the child puts on the mask. The mask should be fitting properly and without leaks at the time the child goes to bed. The Leak Correction Dial can be turned to the right or left if leaks occur while the child is sleeping to readjust the fit of the cushion on the face. Turning the Leak Correction Dial widens the angle of the front of the frame, gently nudging the cushion closer to the face.

Care and maintenance

- Wash the mask parts in warm water with liquid dishwashing soap, like what you might use when hand-washing your dishes. Do not clean the mask with bleach, alcohol, solutions containing bleach or alcohol, or solutions containing conditioners or moisturizers.
- Hand wash the non-fabric parts (the cushion and tubing) daily.
- Hand wash the fabric parts and lay them out to dry once each week.
- Use the headgear clips to put the mask on and take it off. This helps to protect the integrity of the stretchy fabric parts.

Troubleshooting

Many troubleshooting questions can be answered by the instructional videos posted on www.dreammapper.com, www.sleepapnea.com, and the Philips Respironics YouTube channel at philips.to/wisppediatric.

Finding the right size

- When a mask is selected for the child, the respiratory therapist, nurse, or sleep technician may use a sizing gauge to help select the best cushion or mask size to fit the child.
- This includes placing the mask or cushion on the child's face to evaluate fit when he or she is in the clinic, hospital, or sleep lab.
- The cushion should fit the width of the nose without blocking the nostrils. If the child is on the line between sizes, the smaller size is usually tried first, then the bigger size if needed.
- If the child is having problems with discomfort from the mask, or if it seems too big or small, let your respiratory therapist or doctor know so they can look into alternative sizes and resources for you.

Comfort tips

- If the child has a preference for a certain sleeping position, consider this when choosing placement of the therapy device.
- The most common mistake is overtightening the headgear. It should fit loosely and comfortably. If the skin bulges around the mask or if red marks appear, loosen the headgear.
- Headgear clips are optional. If you prefer, you can thread the straps directly through the frame slots to attach the headgear.
- The quick release elbow allows the mask to be temporarily disconnected from the tubing without the child having to remove the mask. The elbow can be quickly clicked back into place when the child returns to bed.
- Use of the optional tubing management loop moves the tube away from the front of the body and reroutes it over the child's head. You will not be able to use the quick release feature to disconnect the mask from the tube if it is looped over the head.
- When removing the headgear, it can be pulled up over the head either headgear first or frame first, according to the child's preference. Children may accept the process more easily if the headgear is done first, pulling the mask away from the face instead of over it.

Q&A

What conditions is non-invasive ventilation (NIV) used to treat?

- Non-invasive ventilation is used to assist with breathing air in and out of the lungs.
- NIV is often used for patients who have developed problems with breathing, such as due to asthma, pneumonia, or an accident.
- In other situations, children who have chronic respiratory conditions or muscle weakness use NIV to help them breathe at home. Many of these children have neuromuscular disorders, such as muscular dystrophy or muscular atrophy.¹
- Continuous positive airway pressure (CPAP) might be used by patients at night to treat breathing conditions related to sleep, such as sleep apnea. People with sleep apnea have periodic pauses in breathing, which disrupts their sleep throughout the night.

What are the consequences if these conditions are left untreated?

- If any of the above conditions are left untreated, the child will not breathe effectively.
- This may result in the child not getting enough oxygen into the body and/or not sufficiently getting rid of carbon dioxide and wastes that are eliminated when the child breathes out. If these wastes are not properly eliminated during normal breathing, it can result in a buildup of acid in the child's blood.²
- The child may also have a lower energy level and a decreased ability to think clearly, perform well in school, and participate in normal everyday activities.
- Any of these conditions can be dangerous if left untreated.

How does NIV work?

NIV works by opening the airway while providing an inhalation pressure and “back-up rate” to assist with the child’s breathing.

How does the pressure go into the lungs?

- The air goes into the lungs through a special mask that either covers the child’s nose or covers both the nose and mouth.
- The mask is held in place by headgear with straps that are designed to work specifically with each type of mask.
- Sometimes the air coming through the machine is heated in order to make it warm and dewy.

How will treatment help?

- Treatment will help the child breathe more effectively and will prevent further complications of not being able to breathe or get enough oxygen.²
- Sometimes children may need some time to adjust to wearing the mask. It can be helpful to make a game out of it and slowly introduce wearing the mask.

What do I do if the mask is leaking?

- The mask is designed with holes that allow a small amount of exhaled air to escape. This is important, and these holes should not be blocked. If it appears to be leaking more than normal or if the machine is alarming that there is a leak, adjusting the mask may help.
- If the leak is detected before the child goes to sleep, check the tightness of the headgear to make sure that it is fitted but not tight. The cushion can be “resealed” by gently pulling it away from the face and setting it back on to reset the folds of the cushion.
- If the leak is detected when the child is asleep, use the Leak Correction Dial to nudge the cushion closer to the child’s face.
- Use the instructions packaged with the mask for proper fitting.
- Oils or moisturizers could impact the cushion’s ability to seal properly. The cushion should be washed daily to remove skin oils. The child’s face should be washed, and he or she should not apply moisturizer before bed.

Is the mask too loose or too tight?

- Ensure that the straps are not too loose or too tight. If they are too loose, the mask will not stay positioned on the face and the child will not get adequate therapy.
- If the straps are too tight, they could cause redness and irritation to the skin beneath the mask and the straps. If the child is in the hospital, respiratory therapists or nurses may frequently rotate different masks on the child’s face and check the skin beneath to reduce irritation.
- The straps do not have to be repositioned tightly to hold the mask in place.



References

1. Kang, P.B., Morrison, L., Iannaccone, S.T., et al., Evidence-based guideline summary Evaluation, diagnosis and management of congenital muscular dystrophy, 2015.
2. Bach, J.R., Ishikawa, Y., and Kim, H., Prevention of pulmonary morbidity for patients with Duchenne muscular dystrophy, 1997 Chest, 112(4), 1024-1028.



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www.philips.com/respironics

Caution: US federal law restricts these devices
to sale by or on the order of a physician.

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