



CPAP INTERFACES: HELPING YOUR PATIENTS FIND THE PERFECT FIT

By Stephanie Richardson

Ask any respiratory therapist what one of the most important parts of her daily uniform is, and she'll probably say a comfortable pair of shoes. A set of ill-fitting kicks can quickly change a 10-hour shift and how you feel about running up and down the halls to administer nebulizer treatments and check on sleep testing results.

Now put yourself in your sleep apnea patients' shoes. How many times has a patient come to you with complaints about how his or her CPAP interface fits — and more than once? Any therapist worth his weight in salt knows that, just like a comfy pair of shoes, a comfortable, well-designed CPAP interface is the key to delivering good therapy.

Patient problems with CPAP interfaces are nothing new, and studies have shown that their design and fit are major roadblocks to compliance. Here, we will look at some of the latest advances in the design of masks and other interfaces for delivering positive airway pressure therapy.

CPAP masks

Today's new CPAP masks are being designed with the patient and respiratory therapists in mind. For example, in an attempt to accommodate more patients and hospital guidelines, manufacturers are making an effort to design latex-free masks.

Traditionally, CPAP masks come in nasal and full-face masks designs, and they are triangular in shape. The material of choice by many manufacturers has been a plastic body and a softer silicone seal that touches the face. Other masks have been designed with a gel-like material that molds to a patient's face to alleviate pressure points. And the most modern masks include a foam air cushion that automatically adjusts to a wide range of facial sizes and contours.



**“And if you don't like that resume,
I've got another one in the car.”**

One manufacturer has created a total face mask for adult CPAP patients at home or in the hospital. It is specifically designed for patients who are unable to get a good seal with a nasal mask, have experienced skin breakdown, or who are claustrophobic. The mask covers the entire face, so there are no pressure points around the nose to cause skin irritation. A seal is created around the outside of the face as air pressure from the CPAP device inflates a soft layer.

This total face mask minimizes leaks and provides optimal airflow through the nasal passages. Air pressure circulates throughout the mask, permitting more natural and comfortable breathing. The mask is constructed with clear, lightweight plastic, and it does not obstruct the user's vision. This helps minimize feelings of claustrophobia.

Other mask features may include an adjustable forehead pad or an inflatable seal that activates when the CPAP device is activated. Some masks have two connection ports so that oxygen can be used with CPAP if necessary. They may also include an anti-asphyxia valve for use with bi-level positive airway pressure or mechanical ventilation.

Eliminating “mask face”

Patients who are especially sensitive to face masks may experience “mask face.” Mask face is an informal term used to describe the lines and redness that remain on a patient's face after using a nasal or full-face mask for CPAP. This skin irritation can last a few hours after using CPAP, and they can be embarrassing and painful. Additionally, patients sporting beards or mustaches may not find a mask that fits comfortably or seals correctly. The result is compromised compliance.

For patients who can't find a mask that doesn't leave a mark, nasal pillows are another option. Nasal pillows are two small, flexible pieces that are inserted into the nostrils. These pieces are attached to a plastic adapter that's connected to CPAP tubing via head gear. One of their advantages is that they fit a wide range of facial and nasal structures, making them a viable option for patients who just can't handle a mask.

Some patients have reported improved sleep quality when using nasal pillows because they deliver air more quietly and more gently than their former mask. Many of these interfaces are lightweight, weighing less than 3 oz., and some have interchangeable tube positions (up, down, left, right) so patients have more flexibility in choosing a sleeping position. More

Featured CPAP Interfaces



V2™ Full Face Mask
 Hans Rudolph, Inc.
 800-456-6695
 www.rudolphkc.com
 Circle Reader Action# 88



SWIFT™ LT
 Resmed
 800-424-0737
 www.resmed.com
 Circle Reader Action# 89

CPAP Interfaces... Continued from page 46

advanced designs come with three or more sizes of nasal inserts so patients have more choices for fit.

It should be noted, however, that patients prescribed higher CPAP pressures are more likely to experience discomfort with nasal pillows.

Improved headgear options

Some CPAP interface manufacturers are making changes to headgear that eliminates extra straps that touch the face.

One of the latest headgear innovations for a nasal interface features three adjustable Velcro® straps, one at the rear of the head, and two at the crown. The straps are sized with two mechanical adjusters that run horizontally across the crown of the head and vertically at the front of the face. With this headgear, the strap is placed on the forehead, slightly below the natural hairline, and the rear strap is placed slightly above the nape of the neck. From that position, the straps can be adjusted on top of the patient's hair so that no part of the headgear obstructs the patient's face. CPAP tubing connects from the nasal interface and is held steady by the top of the headgear.

Other advances in headgear include new clips to attach masks or nasal pillows to the headgear. This gives patients the ability to choose the positioning of straps for a more comfortable fit. A cuff has been added to some models in order to keep the CPAP tubing's swivel adapter in place. Other models have thicker padding to cushion the patient's head while sleeping.

Still more options

One modern interface is designed like a large nasal cannula. It has two tubes that fit securely in the nostrils. CPAP tubing connects to the device and loops from the nose around the ears and comes together near the chest where it attaches to the CPAP device. No headgear is needed because a strap goes behind the patient's head to keep the tubing in place.

Another option combines an oral appliance used with CPAP, usually referred to as oral positive airway pressure, or OPAP. OPAP is designed in such a way that it adjusts and opens the jaw to allow a smooth flow of air between the mouth and lungs. Unlike other interfaces, this one must be fitted especially by a dentist or orthodontist

The perfect fit

No matter what interface your patient wants to choose, it's up to you to help guide them toward a mask that's right for them. An interface that fits correctly and comfortably is the key to achieving CPAP compliance. A mask that is too big may require tighter than usual headgear settings, and a leaky mask may cause skin irritation or leave marks as mentioned before.

When a patient's mask arrives, check for the correct fit. First, make sure that the top of the mask sits at the bridge of the patient's nose. Then, see that the bottom of the mask rests at the bottom of the patient's nose and top of his or her upper lip. The sides of the mask should fit close to the sides of the patient's nose without actually touching it.

Generally, the smallest mask that fits your patient is the best option. Always remind patients that it is possible to have masks custom made. Just check with your interface manufacturer to see if they offer that option.

Stephanie Richardson is a freelance medical writer based in Philadelphia.

Hans Rudolph's V2™ Mask

Get the mask that patients are asking for
The Brand New V2™ Full Face CPAP Mask

Consumers are finding out for themselves that they have options when it comes to which mask they use. See why patients are choosing to use the V2™

Call now to order our Sleep Lab Program today.



- new airtight seal
- new quiet ventilation
- new simple headgear
- detachable swivel
- dishwasher safe
- no hard plastic frame
- goes under the chin
- no bothersome forehead cushion

SLEEP 2008
 Booth 504

800-456-6695 hri@rudolphkc.com

691576

CIRCLE READER ACTION CARD # 31