PATIENT EDUCATION

CPAP and Bi-Level Therapy

Medicor® HEALTHCARE

Breathe Easier.

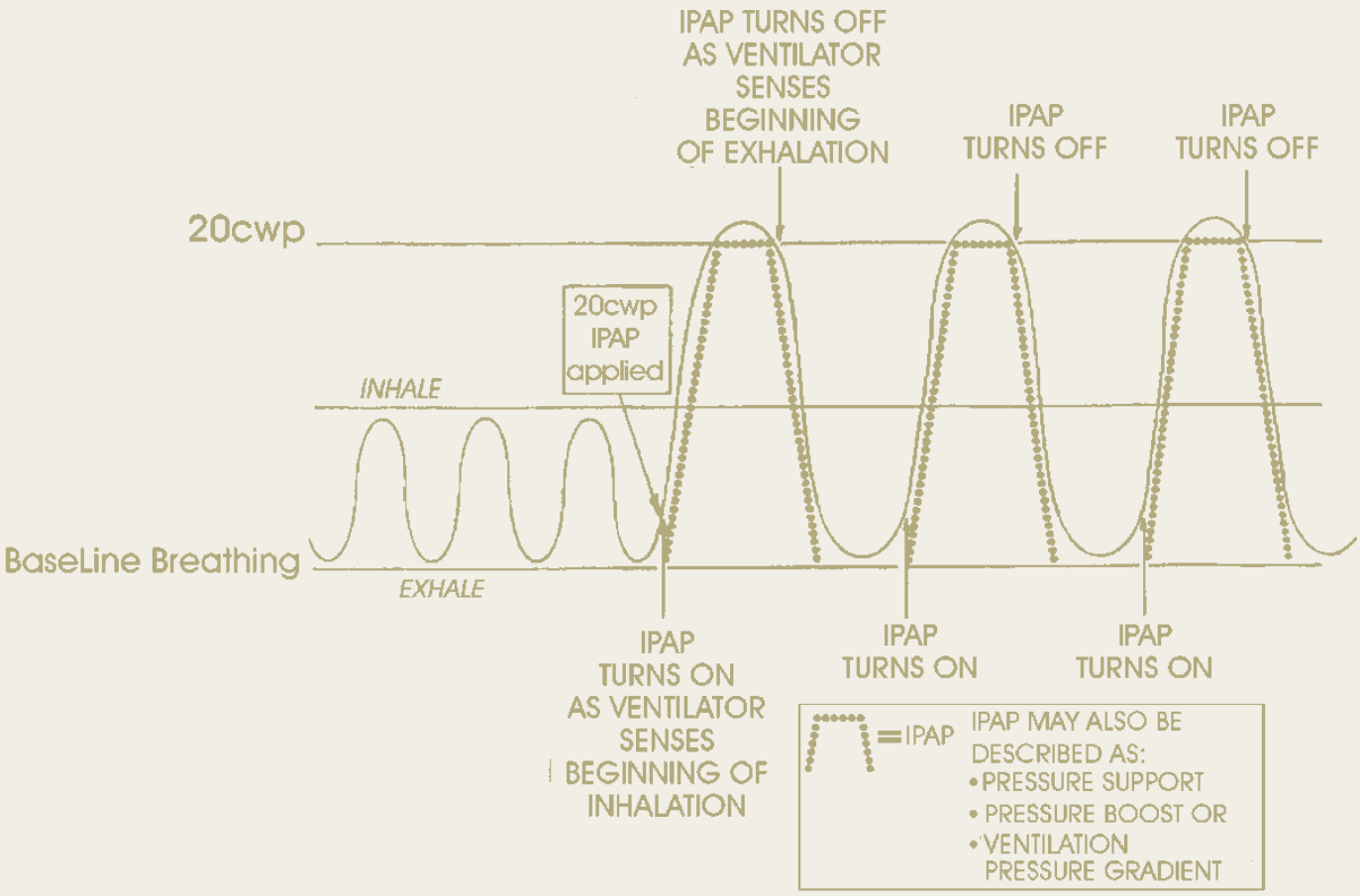
What Do CPAP Compressors Do?

CPAP compressors are intended to prevent your airway from becoming obstructed by supplying pressurized air through a mask. CPAP compressors work by providing small amounts of constant pressure to your airway to prevent obstructions caused by the relaxation of muscles and soft tissues that surround the airway.

Bi-Level Therapy

If you need a very high level of pressure to prevent your airway from obstructing, your doctor may order Bi-level therapy instead of CPAP therapy. The only difference between the two is that the Bi-level therapy senses exhalation and allows the pressure to drop while you are exhaling. During inspiration, airflow at an increased pressure helps to hold your airway open. Inspiratory positive airway pressure is also known as IPAP, whereas expiratory positive airway pressure is known as EPAP. The EPAP pressure is always lower than the IPAP pressure, and it may help you tolerate higher inspiratory pressures by giving you a break from the pressure when you are exhaling.

A flow sensor is built in to the device and insures that the bi-level compressor will respond nearly instantaneously to your breathing. IPAP is triggered when the compressor senses that you are taking a breath, and then drops to EPAP levels as you exhale. The diagram below illustrates how IPAP and EPAP are triggered.



Your physician will prescribe the IPAP and EPAP pressure levels, or a range of pressure levels that can be adjusted until the therapy begins to work for you. If your doctor has prescribed oxygen, it can be bled directly into the breathing circuit without affecting the compressor's ability to sense your breathing. Your therapist will adjust the levels for you. You should never try to adjust them yourself before talking to the therapist who is caring for you.

Setting Up Your CPAP or Bi-level Compressor

1. Connect one end of the tubing to the airflow outlet port on the front of the unit. **(Figure 1)**

2. Connect the other end of the tubing to the swivel adaptor (if applicable to your mask set-up – some masks come with an exhalation port or swivel adapter built in).

3. Connect the swivel adapter to the nasal mask connector **(Figure 2)**. Position the swivel so that the slots on the side of the swivel are positioned away from your face. If your mask has a swivel adapter built in, connect the mask directly to the tubing.

Figure 1

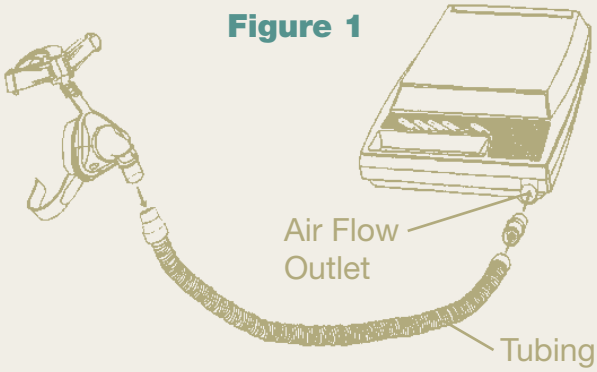
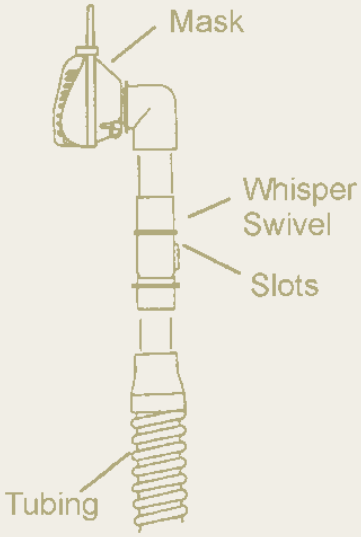


Figure 2



4. Plug the electrical cord into the power connector on the back of the unit. Make sure the "on/off" switch is set to "off", and then plug the electrical cord into a three-prong outlet, or a grounded three-prong adapter. Do not plug the unit into an extension cord.

5. Place the compressor on a table close to the head of the bed. Position it carefully so that it won't be bumped from the table during the night. Make sure the cord is not in the in an area where it can trip you if you get up during the night.

6. If you are using a humidifier, do not place the humidifier on top of the unit or in a position that might cause water to be spilled into the unit. Generally, placing the unit on top of or next to the humidifier works best.

7. Make sure the area around the unit is kept dry and clear. Keep the unit well away from articles such as clothing, bedding or towels. If these obstruct the air inlet at the rear of the unit, they may cause overheating and damage the compressor.

8. Do not place the unit near a heater or any source of very hot or cold air.

Note: The therapist presets the pressure levels that have been prescribed by your physician. You should never attempt to change the preset pressure levels on your own without first talking to your physician or therapist.

Fitting a Nasal Mask

1. Unhook the tabs on the straps of the headgear or softcap. Thread the tabs through the slots on the top and sides of the mask. Fasten the Velcro portion of the straps loosely onto the tabs. **(Figure 3)**

2. Hold the mask in place, pressing comfortably against your face, and slide the headstrap over your head. Make sure the straps are sufficiently loose so that the nasal cushion is not pulled against your nose. **(Figure 4)**

3. Position the headgear so that the bottom straps pass below your ears, and the top and center strap passes over the top center of your head. Check that the headgear straps are not twisted at the back of your head.

4. Connect the swivel adapter/exhalation port of the mask to the tubing. **(Figure 5)**

Figure 3

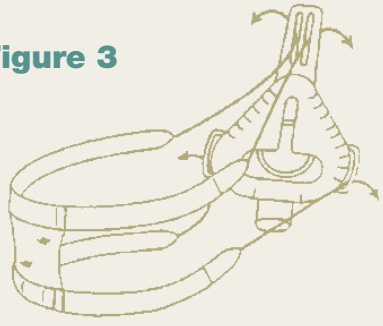


Figure 4

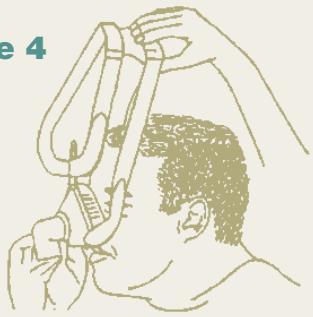
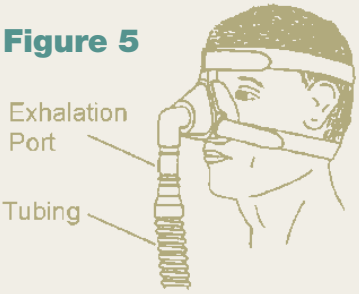


Figure 5



5. Lie down and breathe normally through your nose, keeping your lips closed. Unhook the strap and then gradually tighten them until the mask has minimal leaks and fits comfortably. Adjust the top strap first, making sure they are above your ears. Next, adjust the lower straps. Readjust the strap tension if leaks occur as your position changes. Do not over-tighten the straps. Over-tightening can cause or worsen leaks.

6. To remove the headgear, simply slide the mask and headgear over your head. The material that the headgear is made from should stretch and you should not need to unfasten the straps to remove the headgear.

Fitting an ADAM Circuit

Some people feel more comfortable wearing what are known as nasal prongs instead of a nasal mask. Your therapist will help you decide which is best for you. If you choose to use an ADAM circuit follow these directions:

1. Fit the headgear on your head **(Figure 6)**. Adjust the two Velcro straps on the front of the headgear until a comfortable fit is achieved. Use of a mirror can make this process easier.

2. Slip the headgear from your head without releasing the Velcro straps. Select the largest size nasal pillow that is comfortable and seals your nose securely. Insert the nasal pillows into the shell located on the end of the circuit **(Figure 7)**. Insert the pillows only as far as the first ring on the pillows.

   Open the two loops on the top of the headgear and insert the ADAM circuit **(Figure 8)**. Thread the Velcro straps back through the buckles on each loop, pressing down to secure in place. Leave the loops loose enough for final adjustment before pulling snug.

3. Center the shell strap on the nasal shell Velcro pad **(Figure 9)**. Position the two nasal pillows in your nose, rotating as necessary for a good seal and comfortable fit. Place two of the Velcro patches on each side of the headgear just in front of the ears. This may be adjusted later.

   Position the end of each strap over the Velcro patches on the side of the headgear. Slide the circuit tubing back through the two loops on top of the headgear and retighten to hold the tubing snugly in place.

Figure 6

Figure 7

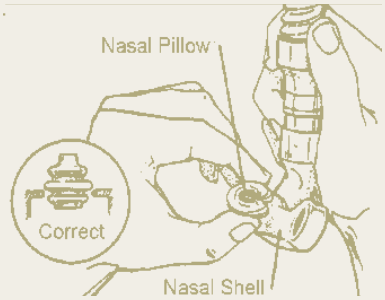


Figure 8

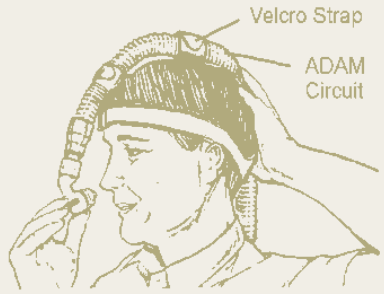
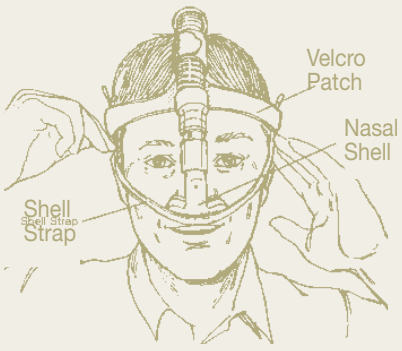


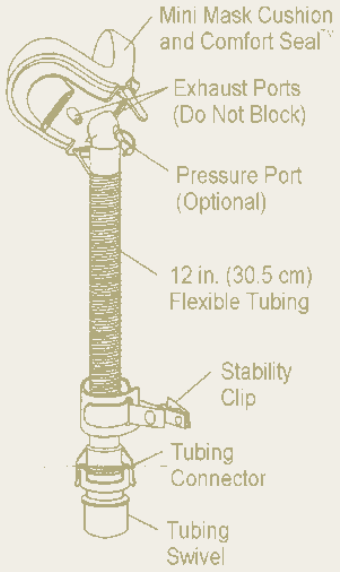
Figure 9



Fitting a Nares Only Mask

Another kind of mask is a mask that covers only the opening of your nose, or nares **(Figure 10)**. Your therapist will help you decide which type of mask is best for you. If you decide to use this type of mask follow these directions:

Figure 10



1. Before attaching the mask, put the headgear on by itself. The headgear is labeled to identify the left and right sides. While looking in a mirror, adjust the top and back straps so that your ears are centered in the earpieces. Gently pull forward on the side straps to make sure your ears stay centered in the earpieces. Remove the headgear and set it aside.

2. Connect the tubing from the compressor to the swivel connector on the mask.

3. Position the mask under your nose. Make sure the comfort seal is not blocking your nostrils. Move the mask around until you have a good comfortable seal and attach the headgear.

Daily Operation of Your CPAP or Bi-level Compressor

1. Connect the air tubing to the mask frame and the compressor.

2. Fit the mask to your face.

3. Settle down in bed and adjust the tubing so it is free to move with you if you turn in your sleep. Do not leave long lengths of tubing around the top of your bed or pillow, which could twist around your head or neck while sleeping. You may bring the tubing over the top of your headboard to reduce drag on the mask, or you may prefer to run it across your shoulder.

4. Push the power button on (and start switch, if your unit has a separate button for both). The pressure should rise rapidly to the level prescribed by your physician. If you prefer the air pressure to increase gradually, set the delay or ramp timer. This will cause the pressure to rise to prescribed levels over the course of 20 to 30 minutes, and may help you fall asleep more easily. If your physician's prescription specifies that there should be no delay in the pressure build up, this feature will be disabled on your compressor. Ask your therapist if you are unsure.

5. If you want to get out of bed during the night, you can shut the machine off. Remove the mask so that you can breath normally if you are going to be out of bed for more than a minute or two. When you are ready to go back to bed, put the mask back on and restart the machine. Adjust the mask for comfort and to prevent air leaks. You can use the delay timer again to help you fall back to sleep.

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