



INTRODUCTION

Your doctor has prescribed a home apnea monitor for your child. While your child is on this monitor, your doctor, as well as other health care professionals and representatives from our company will be working with you. You are the most important member of this team. The home apnea monitor will also play an important part in this team effort. The monitor is there to help you and others keep careful watch over your child. Unless your doctor advises otherwise, the monitor must be used at all times, especially when the child is sleeping. You should not discontinue use of the monitor unless instructed by your doctor to do so.

An apnea monitor is a machine that continuously monitors the respiratory rate and the heart rate. If the child's breathing and/or heart rate are not within the limits prescribed by your doctor, visual and/or audible alarms will be activated.

You must understand the monitor will not prevent the loss of breathing or heart beat. It is designed to monitor breathing effort and heart beat patterns through electrodes placed on the child's chest and to alert you if it detects a change that requires your intervention.

Visual indicators on the monitor will respond to every breath and every heart beat. You can confirm that the monitor is accurately responding to your child's heart beat and breathing by comparing the child's actual pulse and breathing movements to these indicators, as you were instructed by our representative. If the visual indicators are not responding properly, check the electrodes and their correct placement as you were instructed. If, after ensuring correct positioning and application of electrodes, the visual indicators still do not respond properly, contact our office immediately.

IMPORTANT: If at anytime you feel the monitor is not functioning properly, contact our office immediately and visually monitor your child until proper operation is restored or confirmed.

IMPORTANT INFORMATION ABOUT APNEA MONITORS

An apnea monitor is intended only to act as an early warning device to alert parents or caregivers that immediate action is necessary. An alarm means the monitor has received signals which may indicate the patient is experiencing an event that could be life threatening. The monitor is designed to alarm at thresholds prescribed by your doctor. To safely attend to the child, you should not be more than ten seconds away. Even with this short response time,

there is no guarantee that a properly operating monitor and appropriate CPR techniques will always result in successful resuscitation. Be attentive in your training, practice your technique, and be prepared. There is no guarantee that a properly operating monitor will alarm in time to allow successful resuscitation of the patient.

Apnea monitors may not detect some apnea episodes (periods during which breathing stops). For example, the monitor may mistake body movement such as rocking or riding in a car for breathing. Also, if a child has apnea during choking, the monitor could mistake the movement caused by choking for breathing. If your child is experiencing movement of any kind you must not rely on the monitor for alarms.

Although the monitor is not fool-proof, it will detect most apnea episodes not caused by choking. It will also alert you if your child's heart rate becomes abnormal. Remember, the monitor can only do its job if it is turned ON and properly connected to your child. **Do not** stop using the monitor until advised to do so by your doctor.

Check the operation of your monitor regularly, using the test procedure as you were instructed. Each visual indicator will activate as the monitor goes through the self-check. The self-check ends with an audible signal. Perform this self-check several times a day and before going to bed at night. If the alarm does not operate properly during these checks, call our office immediately and visually monitor your child until a properly operating monitor is in place.

"False alarms" are short alarms for which there is no apparent cause (alarms that appear to be invalid). Some "false alarms" may be actual apnea events during which the monitor alarm stimulated your child to resume breathing normally. **IMPORTANT:** Adjusting the monitor to reduce the number of "false alarms" may also increase the chance that the monitor would not detect a real apnea episode. **Never** make monitor alarm limit adjustments unless advised to do so by your doctor or our representative.

Apnea monitors are equipped with battery back-up to supply power during brief household power failures. If your monitor has a separate battery charger, it is important to routinely check the charger connector. The monitor is equipped with a visual indicator to indicate when the battery is charging. This indicator should not flicker when the charger connector is gently twisted or wiggled.

If you live close to a strong transmitter, such as a television or radio station, a police or fire station, a HAM radio transmitter, an airport or any other source of electromagnetic radiation, these signals may be picked up as breathing by your monitor. Checking your monitor's breathing indicator, as described previously, will help to determine if your monitor is affected by electromagnetic interference. In some rare instances, it may not be possible for the monitor to perform properly in these environments. If you suspect a problem with this type of radiation, please ask our representative to test the monitor in your location.

Some electrical devices including microwave ovens, televisions, certain power tools, some

electric blankets and waterbed heaters and other electrical appliances may be a source of electromagnetic interference and could cause the monitor to malfunction. If you have any reason to suspect the monitor is not operating properly, contact our office immediately.

Static electricity can also cause monitor malfunction. In cool, dry weather static electricity can be generated simply by walking on carpeting or handling nylon or woolen bedding. Under these conditions, it is wise to touch a grounded metal object to eliminate the static charge before attaching or adjusting the electrodes.

The monitor must always be kept in a clean environment. Place the unit on a table (never on the floor) to avoid dirt or other foreign material from getting into the monitor enclosure.

Never allow another person (child or adult) or a pet to sleep in the same bed with the monitored child. Any movement near your child, the monitor, or the cables may cause the monitor to fail to detect an apnea episode. This also increases the danger of cables or electrodes being accidentally disconnected. The **loose lead** alarm should be tested regularly to ensure that it is working.

Check to make sure you can hear the monitor's alarms from other rooms or when the noise levels in your home are higher.

Our qualified health care professionals are available 24 hours a day. Call our office at any time you have questions or need assistance with the monitor.

IMPORTANT Your monitor can only analyze your child's breathing and heart rate and warn you that something is wrong. It **cannot** help your child during an alarm event. **You must take action.**

Read the equipment operating instructions that have been furnished by our representative. Those instructions are written specifically for the system you have been provided. These instructions serve as a reference. They should be used in conjunction with the instruction and protocol set by the doctor ordering the system and the training provided by our representative.

SETTING UP THE MONITOR

Post your list of emergency telephone numbers where it will be readily available in case of an emergency. Be sure that everyone who might be acting as caregiver knows where to find these numbers.

Keep your troubleshooting guide near the child's crib.

Place your monitor on a sturdy night stand or table out of reach of the child being monitored and any other children in the home. A grounded three-prong outlet should be within easy reach of the monitor's power cord.

Never place the monitor on floor, on carpet or on the soft pillows or cushions of a chair or sofa. These soft surfaces might tend to muffle the audible alarm. Keep all objects away from the front of the monitor.

Never cover the monitor.

Place the monitor facing the door of the child's room so it will be easily visible from the doorway.

Keep a flashlight and your event log at the bedside.

Locate and identify the fuse or circuit breaker for the outlet used for the monitor.

TRAVELING WITH YOUR CHILD

LOCAL TRAVEL

You should continue to use the monitor when traveling (even short distances). Follow the instructions you were given by our representative regarding the handling and use of the monitor and battery charger while traveling locally. If possible, plug your monitor into a wall outlet when you reach your destination. This will help keep battery fully charged.

LONG DISTANCE TRAVEL

If you must travel long distances and/or out of our service area, please contact our representative well in advance of the trip for special instructions and assistance.

APPLYING ELECTRODES

Place the electrode belt on a firm flat surface, with the velcro tab side facing up. Place the child face up on the belt. Position the belt at approximately the level of the child's nipples.

Plug the metal tips of the lead wires into the electrodes. The metal tips should be fully inserted into the electrodes so that no metal is showing.

With the wires inserted, pick up the electrodes so the electrode with the **white** wire is in **your left** hand and the electrode with the **black** wire is in **your right** hand. Turn the electrodes so the Velcro side is facing downward and the lead wires are toward the bottom edge of the belt.

Place each electrode on the belt so it will be positioned at nipple level and about halfway between the infant's nipple and armpit when the belt is worn. The **white** lead wire should be connected to the electrode on the **child's right** side and the **black** lead wire should be connected to the electrode on the **child's left** side.

Make sure the surface of the skin where the electrodes will make contact is clean, dry and free of lotion, powder or oil.

Before attaching the belt around the child's chest, wet the carbon/rubber contact surface of each electrode with a drop of water and rub it in. Wrap the belt snugly around the child's chest and fasten with the Velcro strip. The belt should not overlap more than three inches, or it may cover one of the electrodes and prevent contact with the skin. The extra material can be cut off

with scissors. Once the belt is secured, you should be able to slip one finger between the belt and the child's body. This will indicate that the belt is snug enough to sense the child's heart beat and breathing, but not so tight as to interfere with the child's breathing.

IMPORTANT POINTS TO REMEMBER

- Always be sure the electrodes are clean and free of any build up of lotion or skin oil.
- When applying electrodes, always moisten the surface of the electrode with a drop of water.
- Be sure the belt is snug around the child's chest so the electrodes are pressed firmly against the skin.
- Never wrap the lead wires over the child's neck and shoulders. Always run the wires downward, out the bottom of the child's clothing (but not through the diaper). Keep the lead wires away from your child's head and neck.

CONNECTING TO THE MONITOR

Attach the free ends of the electrode lead wires to the patient cable. The patient cable is color coded. The black lead wire must be connected to the black pin on the patient cable, and the white lead wire must be connected to the white pin. You should feel a distinct click when you insert a lead wire into the patient cable.

The connector on other end of the patient cable should now be inserted into the socket marked "patient cable" on the monitor. You should hear and feel a distinct click as it snaps into place.

IMPORTANT The connector on the patient cable locks into the socket on the monitor. When unplugging the patient cable, you must first release the locking mechanism. **Do not** pull on the cable without releasing the lock.

TURNING THE MONITOR ON

With the electrodes securely in place and the cables properly connected, turn the monitor power switch to the ON position.

The monitor will automatically go through a self-check sequence. Each visual indicator will flash ON during this self-check procedure. An audible beep will indicate when the self-check procedure is completed. If the monitor doesn't perform the self-check properly, contact our office immediately and **observe your child until proper operation is reestablished.**

The alarm limits on your monitor have been set specifically for your child according to your doctor's prescription. Please do not change any of these settings.

IF AN ALARM SOUNDS

If you hear the monitor alarm, check your child immediately. An alarm may be either a patient alarm or an equipment alarm. As explained during your training by our representative, you can distinguish between the two types of alarms by the difference in the sound.

PATIENT ALARM

A patient alarm indicates a change in your child's breathing or heart rate.

Any delay in response to a patient alarm will result in a progressively more intense alarm.

NOTE: You should never be more than 10 seconds away from your child.

THERE ARE FOUR GENERAL CONDITIONS RESULTING IN PATIENT ALARMS.

HEART FAST ALARM

Check your child.

- Your child's heart is beating faster than the setting on the monitor.
- It may increase with crying or physical activity.
- The **heart fast** indicator on the monitor will turn **on**, and an alarm will sound.
- Press the **reset** button.
- If the heart continues to be fast, the alarm will continue.
- Comforting the child may resolve the alarm condition.
- Follow the instructions given to you by your doctor if the alarm continues.
- After the alarm condition has been resolved, record the event on the alarm log and reset the monitor by pressing the **reset** button.

HEART SLOW ALARM

Check your child.

- Your child's heart is beating slower than the setting on the monitor.
- The **heart slow** indicator on the monitor will turn **on** and an alarm will sound.
- Press the **reset** button.
- If the heart continues to be slow, the alarm will continue.
- Follow the instructions given to you by your doctor if the alarm continues.
- After the alarm condition has been resolved, record the event on the alarm log and reset the monitor by pressing the **reset** button.

BREATH SLOW ALARM

Check your child.

- Your child's breathing is slower than the setting on the monitor.
- The **breath slow** indicator on the monitor will turn **on** and an alarm will sound.
- Press the **reset** button.
- If the breathing continues to be slow, the alarm will continue.
- Follow the instructions given to you by your doctor if the alarm continues.
- After the alarm condition has been resolved, record the event on the alarm log and reset the monitor by pressing the **reset** button.

BREATH APNEA ALARM

Check your child.

- It has been too long since your child has last attempted to take a breath.
- The **breath apnea** indicator on the monitor will turn **on** and an alarm will sound.
- Press the **reset** button.
- If a breath has not been taken, the alarm will continue.
- Follow the instructions given to you by your doctor if the alarm continues.
- After the alarm condition has been resolved, record the event on the alarm log and reset the monitor by pressing the **reset** button.

EQUIPMENT ALARM

An equipment alarm indicates a problem with the monitor or the wires and electrodes connecting it to your child. This could mean that your child is not being monitored properly.

Even with an equipment alarm, always check your child first. Once you have confirmed your child's breathing and heart rate are normal, proceed to check the equipment for loose connections, low battery, incorrect switch setting, incorrect lead wire connection, etc. If you are unable to correct the alarm condition, turn the monitor OFF and call our office. Observe your child until the equipment problem has been corrected.

Refer to the troubleshooting guide in the operating instructions furnished with your monitor to learn how to correct such common problems as loose lead, low battery, poor electrode contact, etc.

WHO TO CALL FOR ASSISTANCE

If you have to provide CPR, call EMS or the rescue squad. Your doctor can be notified after the episode has been resolved.

If your child is having medical problems of any kind, call your doctor. You should also call your doctor anytime you have to use vigorous stimulation to arouse your child.

If you are having problems with the monitor, call our office immediately. You must watch your child whenever you think the monitor is not working properly.

OTHER HELPFUL INFORMATION

- Review your emergency plan regularly. Keep instructions and emergency phone numbers in a specific, convenient location known to all caregivers, so the numbers are always quickly and easily available.

- Make sure that all caregivers are CPR trained. Older siblings should also understand the monitor equipment and know how to help. CPR should be periodically reviewed with your doctor or other health care provider.
- Use the monitor at all time when the child is sleeping or is unattended and at all other times prescribed by your doctor. You should use the monitor whether you are at home, traveling, visiting friends, shopping, etc. Make no exceptions unless instructed to do so by your doctor.
- Turn the monitor OFF and remove the electrode belt and electrodes when bathing the child.
- Use fabric softener when washing your child's clothes to reduce static electricity, which can interfere with the proper operation of the monitor. The type of softener used in the washer, rather than drier sheets is preferable.
- To order additional supplies, please call our office during regular business hours several business days before your present supplies are exhausted. You should keep extra electrodes, a second set of lead wires and an extra patient cable on hand to allow you to immediately correct a failure of any of these accessory items.
- Always stay within 10 seconds of your child. Be sure you can hear the monitor alarms over household noises such as your vacuum cleaner, dishwasher, radio or television, and other appliances.

ROUTINE CLEANING

MONITOR

Unplug the monitor from the electrical outlet. Detach all cables before cleaning. Use a slightly damp cloth to clean the outside of the monitor. **Do not** use an abrasive cleaner. **Do not** allow liquids to get into the monitor.

PATIENT CABLE

Use a damp cloth to clean the patient cable. Never use alcohol or solvent of any kind to clean the cable. **NOTE: The cable cannot withstand excessive bending, twisting or coiling.**

ELECTRODES

The electrodes should be cleaned daily with mild soap (dish washing soap) and water. Rinse thoroughly to assure soap is not left on the electrode.

BELT

Keep electrodes and electrode belt clean to prevent skin irritation and false alarms. The belt can be hand or machine washed after removing the electrodes. Use mild detergent and warm

water. For machine washing use gentle cycle. Rinse thoroughly to prevent skin irritation. **Do not use bleach.** Belt should be air dried. **It should not be placed in an automatic dryer.**

LEAD WIRES

Use a damp cloth to clean lead wires. The metal tips should be cleaned with an mildly abrasive cleaner if they become tarnished. Special care is required when connecting or disconnecting the lead wires. Hold the hard plastic ends. Never pull on the wire itself.

DISCONTINUING USE OF THE MONITOR

Your doctor will determine when to discontinue use of the home apnea monitor. Please consult your doctor or his/her staff if you have questions.