ApneaTrak:
Core Patient Guide
Instructions for Use with RIP Belts

ApneaTrak: Core Patient Guide

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Welcome to the Cadwell ApneaTrak system.

Your provider has determined that you will participate in a home sleep apnea test. This Cadwell ApneaTrak system will collect data on your breathing and snoring while you sleep.

As you prepare for your study, please verify that the following components are included:

1. ApneaTrak Recorder
2. Chest Effort Belt
3. Pressure Airflow Cannula
4. Oximeter Finger Sensor
**5**. Adhesive Tape

Getting Started

The ApneaTrak system utilizes multiple sensors to collect information while you sleep. After you have completed your sleep test your provider will download the data contained in your ApneaTrak device for review and assessment.

To watch a video version of this guide, go to: https://cadwell.com/cr

This guide will help you through the following steps:

> Section 1: Connecting Sensors to the Device
> Section 2: Applying the Sensors
> Section 3: Starting Your Study
> Section 4: Check the Status of the ApneaTrak
> Section 5: Using the ApneaTrak Signal Check
> Section 6: Entering an Event Marker During the Recording
> Section 7: Ending your ApneaTrak Recording
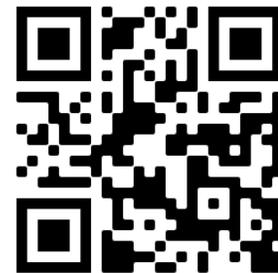
Read this manual carefully to prepare for your ApneaTrak recording.

Patient Setup Guide

NOTE: If your healthcare provider gave you specific instructions on how they want you to use the device, follow those instructions first.

Section 1: Connecting Sensors to the Device

NOTE: If your provider or testing facility has already connected sensors to the ApneaTrak device, skip to Section 2: Applying the Sensors

NOTE: To see the images of what the connectors are, press the patient event button (see image below) at any time in order to light up the indicators for 10 seconds. Press the button again if the indicators go out and you need to see the symbols again.

1. Place the **Chest Belt** around your chest, ideally across your sternum. The buckles will click together when they are latched. Adjust the belt as needed by sliding the plastic adjustment rings. The belt should be snug and stay in place when standing up, but should not be uncomfortably tight or feel like it is restrictive.

2. **Remove the belt by pressing down on the finger tab to release the clip, and continue these instructions.** If the **ApneaTrak** is already clipped to the chest belt, skip to step 4.

3. The **chest belt** has black connection ports on either side of the buckle. With the ports facing down and the ApneaTrak logo facing up, attach the ApneaTrak to the chest belt near the buckle by sliding the chest belt up and under the clip on the back of the ApneaTrak.

4. Place the ApneaTrak right-side-up in front of you to connect the sensors. Remove the port panel by pushing down on the cover where the arrow is located while pulling the cover away from the device. This will reveal the color-coded ports on the bottom of the ApneaTrak.

5. The **chest belt cable** has two black connectors on one end, and a blue connector on the other end. Attach the blue connector to the matching blue port on the ApneaTrak. The blue connector only fits one way, with the rounded section at the top, so ensure it is connected correctly and securely.
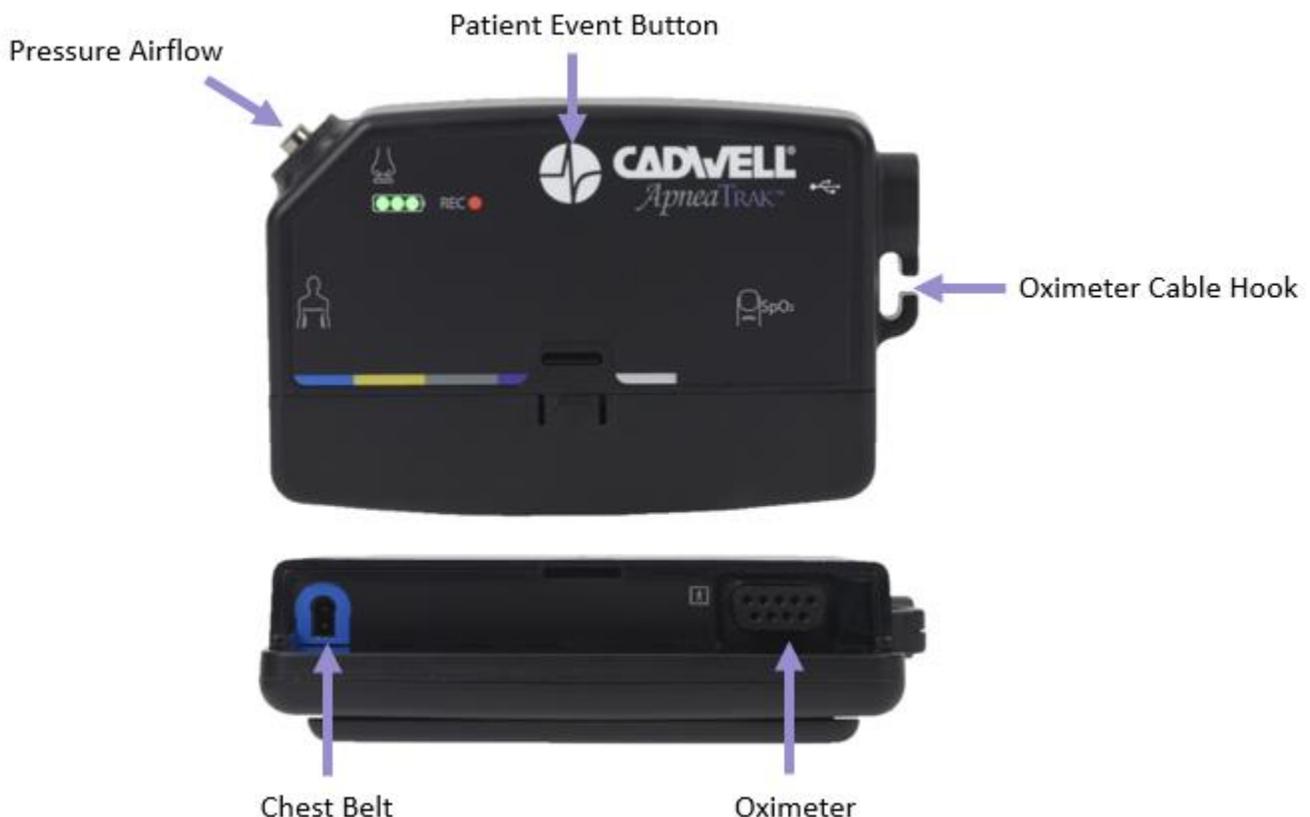
6. Plug the **oximetry sensor** into the large port on the bottom of the ApneaTrak. The plug only fits one way, with the ridges on the connector facing up, so ensure it is connected correctly and securely. Press the oximeter sensor cable into the hook on the side of the ApneaTrak, this will help keep the sensor from disconnecting from the device while you sleep.

7. Replace the port cover, by sliding it into the device using the rails, in order to protect the port connections.

Section 2: Applying the Sensors

8. Place the **Chest Belt** (with the ApneaTrak Recorder attached) around the chest, ideally across your sternum. The buckles will click together when they are latched. Adjust the belt as needed by sliding the plastic adjustment rings. The belt should be snug and stay in place when standing up, but should not be uncomfortably tight or feel like it is restrictive. Adjust the position of the ApneaTrak to ensure it is placed in the front/center of the Chest Belt.

    NOTE: For the device to correctly determine what position you are in, it needs to be on the front of your body. For stomach sleepers, having the device in the center of the belt may not be comfortable. You can move the device towards the right or left side of the chest, but, in general, it must stay on the front of the body for it to correctly determine what body position you are sleeping in. Most stomach sleepers will turn slightly, move the device to the shoulder that is more elevated from the bed to get more comfortable.
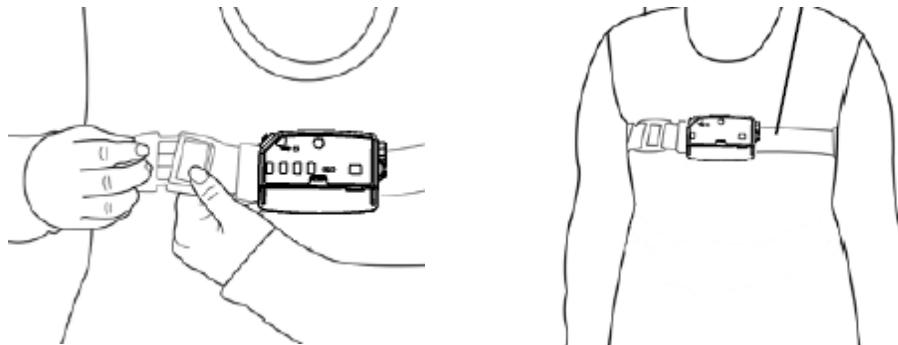

9. Connect the two black connectors from the **chest belt cable** into the two ports on the **chest belt.** Either connector can attach to either port.

10. The **cannula** has clear tubing with two prongs that fit just into your nose and a rubber slide to adjust the fit of the tubing. Pull the rubber slide down away from the prongs. Positioning the prongs so that they curve toward you and down, insert the prongs into your nose and pull the tubing back over your ears, like a pair of glasses.

11. Move the slide up or down to adjust the tension on the **cannula**. It should stay in place with minimal tension, and should not be tight or uncomfortable. You can use the **adhesive tape** to tape the tubing to your cheeks to help keep it in place while you're sleeping.
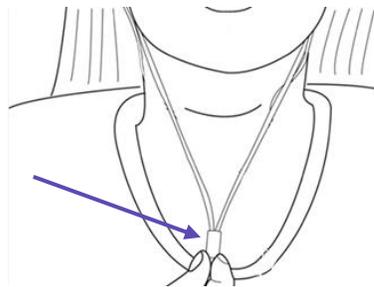
12. Twist off the cap on the bottom end of the **cannula**. Attach it to the metal connector on the top of the ApneaTrak by twisting gently a quarter (¼) turn, clockwise. Do not overtighten this connection.

13. Place the **oximeter sensor** on the index finger of either hand. If it is too tight on the index finger, pick a different finger. Close your hand into a fist and then place a piece of **adhesive tape** across the oximeter cable on the back of the hand. Placing a piece of tape over the cable on the shoulder can help ensure the cable does not hang freely. If there is not enough slack in the cable, you do not need to tape the cable on your shoulder, the tape on the back of your hand should be sufficient to keep the sensor in place. **Do not wrap tape around the finger.** This will restrict blood flow and reduce signal quality.

14. After all sensors are in place, you are now ready to start a recording.

Section 3: Starting Your Study

NOTE: Your provider may have scheduled the ApneaTrak to start automatically. If so, skip to Section 4, the device will start automatically at the time they configure it to turn on.

To start your recording, press and hold the **Event button** until the white REC indicator appears on the front of the device. The button needs to be held for at least 3 seconds for the recording to start. If you do not see the REC light come on, wait for the lights to turn off and then try again. If the REC indicator flashes when you press and hold the button, then your provider has configured the device to turn on automatically and no further action is needed.

Section 4: Check the Status of the ApneaTrak

You can verify if the ApneaTrak device is working at any time during the night. Press the event button (do not hold) in order to illuminate the record, battery and sensor indicator lights for a short duration.

If the white REC indicator illuminates and stays on, the device is recording data.

If the white REC indicator flashes, then the device is programmed to turn on but has not yet started recording.

If it does not illuminate, the recording has finished or was not correctly started.

Section 5: Using the ApneaTrak Signal Check

If you press and hold the event button for an additional 3 seconds after the recording has started, the device will perform a signal check.

During the signal check, each of the channels will show the following behavior:

Chest belt: the channels will flash white until they are connected. If the signals were connected correctly, then the lights will change to flashing green. If the device detects a good signal, then the indicators will change to solid green. If they don't change to solid green, try to relax and take a couple comfortable, deep breaths.

Nasal cannula: the channels will flash white until a sensor is connected to the device. After being connected, the light will change to solid green.

Oximeter: the channels will flash white until a sensor is connected to the device. After being connected, the light will change to solid green.

Check any connections that do not turn solid green. If you are sure that you have connected the signals as explained above, then proceed with your study. The signal check will continue for 5 minutes and then the LEDs will go dark.

After the LEDs have turned off, the recording will continue. No special attention to the device is required. If a sensor becomes disconnected, just plug it back in and the recording will continue. If you are concerned with whether the device is recording, press the Event Button again and verify that the REC indicator illuminates solid. If it does not, repeat the steps to start the recording.

Section 6: Entering an Event Marker During the Recording

If your provider instructs you to record events that they would like to review, then press the event button once to enter an event. Record the time and the reason of the event for your doctor to review when you return your ApneaTrak device.

Section 7: Ending your ApneaTrak Recording

You do not need to do anything to complete your recording. The device will turn off automatically. You can remove the sensors in any order. If your provider indicated that you should use the device for more than one night, then remove any tape used for the study and discard. Discard the clear plastic cannula. Once the number of studies your provider wanted you to complete (1, 2 or 3 nights) is done, then return the system to your testing facility.

Frequently Asked Questions

Chest Belt

Where do the black connectors go?

The black connectors plug into the inputs adjacent to the buckle and latch on the belt itself.

Does the belt have a right-side-up?

No, the belts can be used in any orientation and work correctly.

Where should the chest belt go?

The positioning of the belt is not specific, if it generally crosses your chest and is snug enough to stay in place, then it will work for the study. Ideally, the belt should cross the sternum through the center of the chest.

The recorder is threaded onto the chest belt, what way is right-side-up?

The text on the front of the device should be right-side-up. The color-coded connectors should point down.

Pressure Cannula

Where does the clear plastic cannula connect?

The end of the cannula twists on to the plastic piece coming out of the ApneaTrak recorder.

The parts on the cannula that go up my nostrils are uncomfortable, what can I do?

You can trim the clear ports that go into the nostrils slightly to allow for a more comfortable fit if needed.

The clear plastic cannula does not stay in my nostrils when I lay on the side of my face.

You can place a small piece of tape near the cheeks to hold the cannula in place.

Oximetry Finger Sensor

The sensor is too tight on my finger.

Try placing the sensor on a smaller finger.

Starting the Recording

What if I have questions during the night?

Refer to the contact information given to you by your provider.

Do I need to clean the system and components in the morning?

No. Do not attempt to clean the system or components. Your provider will clean the device after you return the system.

Recorder Placement

The recorder is uncomfortable. Can I move it?

Yes. You can move it towards the right or left side of the chest, but, in general, it must stay on the front of the body for it to correctly determine what body position you are sleeping in.

I'm not sure if the recording is really working. How can I determine if I started the recorder correctly?

Press the event button on the front of the device. Look for the REC indicator to illuminate on the front of the recorder. It indicates that the device is on and recording. See Section 5.

How do I start the recorder?

Press and hold the event button down for 3 seconds or more. See Section 4.

Patient Warnings and Cautions

⚠ Carefully place all sensors and wires as shown in this manual. Verify that you will not become entangled in the sensor wires.

⚠ This product is for diagnostic use and is not to be used as an apnea monitor or in life-sustaining applications.

⚠ ApneaTrak is not water-resistant. Do not immerse system or any component in liquid. Do not user the system if it has been exposed to liquid. Do not bathe or take a shower while wearing the ApneaTrak.

⚠ Do not attempt to service or repair equipment.

⚠ Inspect cables before and after each use. Do not use cable if insulation is damaged or if the cable connectors are loose or damaged in any manner.

⚠ Do not connect the device to a power source or computer while wearing the device. Disconnect the device before beginning the recording.

⚠ Inspect the ApneaTrak device for physical damage prior to use. Discontinue use if physical damage to the device is found.

⚠ Do not expose or use ApneaTrak to excessive heat (above 104°F/40°C), cold (below 41°F/5°C), or humidity (15 to 90% non-condensing). Keep device and components away from flames.

⚠ Do not clean ApneaTrak, cleaning should be performed by clinically trained users.

⚠ Lithium battery: potential for fire or burning. Do not disassemble, crush, heat, or burn.