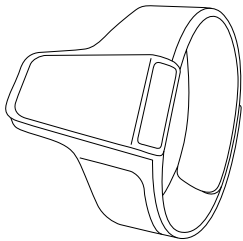
Lookee®

Wrist Sleep Monitor

User Guide



Lookee®
Health · Technology

Customer Support:
Support@LookeeTech.com

1 Year Warranty After Registration:
Please register your device and claim one year warranty at www.LookeeTech.com

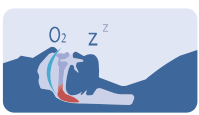
Warnings and Cautions

- This product is not a medical device and does not claim to diagnose, treat, or cure any disease.
- DO NOT squeeze the sensor or apply excessive force on the sensor & cable.

- Do not use this device during MRI examination.
- Never submerge the device in water or other liquids. Do not clean the device with acetone or other volatile solutions.
- Do not place this device in pressure vessels or gas sterilization device.
- Consult your doctor immediately if you experience symptoms that could indicate acute disease.
- Do not self-diagnose or self-medicate on the basis of this device without consulting your doctor. In particular, do not start taking any new medication or change the type and/or dosage of any existing medication without prior approval.
- Use only cables, sensors and other accessories specified in this manual.
- Prolonged continuous monitoring may increase the risk of undesirable changes in skin characteristics, such as irritation, reddening, blistering or burns.

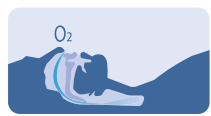
Overview

Lookee® Wrist Sleep Monitor is a new designed and patented Sleep Monitor to track your O2 Saturation Level, Heart Rate, Sleep Quality, Sleep Apnea Events and Snoring. And its Smart Vibration Alarm may help you to reduce the risk of sleeping on unhealthy low blood oxygen level and related side effects from the Sleep Apnea and Snore.



Airway is closed, oxygen level drops

Smart Vibration Alarm wakes you slightly to breathe right



No more sleeping on unhealthy low O2 saturation level

LOOKEE SLEEP MONITOR GIVES YOU THE DATA TO UNDERSTAND, IMPROVE YOUR SLEEP AND MAY HELP TO REDUCE THE RISK OF SLEEPING ON UNHEALTHY LOW O2 SATURATION LEVEL!

EASY AND COMFORTABLE TO USE: Unique, Lightest and Smallest Blood O2 Saturation Level & Heart Rate Sleep Monitor with patented Thumb Sensor to free your fingers from those constrained clips from other Fingertip Pulse Oximeters on the market. No more pain, numbness and slipping off from a overnight monitoring.

THE SMART VIBRATION ALARM, featured with 5 level settings, that will slightly wake you up change your sleep position to breathe if your blood oxygen level (SpO2) drops below **the threshold (between 80-95%) that you preseted on the App.** This may help you from sleeping throughout unhealthy low blood oxygen saturation level and related side effects, without disturbing your sleep partner.

UP TO 20 HOURS MONITORING: Recording up to 20 hours during sleep and 12 hours during activity. But it depends on your sleep condition. More events during your sleep will drain the battery faster. **You may check the battery power from Dashboard on your APP when connected, and charge your device promptly to make sure a whole night sleep monitoring.**

HOW TO USE

Download App on your Smartphone or Tablet and Enable Bluetooth on your mobile.

App name: ViHealth
iOS: App Store
Android: Google Play
compatible with Mobiles with Android 5.0+, iOS 9.0+

Charging with USB

Please charge 2-3 hours before first time use. When the LED is flashing in green or there is no power, please charge the device before use. Connect the device with the attached USB Charging Cable to a standard USB port to charge.

During charging, the blue LED is on. After fully charged, the LED will turn off.

Button on the Side

Press the button to turn the device on or off. It will turn off automatically if idle and also not connecting the App.

Connect the App

Press button to turn on the device, and then open the App. You will see a reminder on the open screen asking you to select the device to connect. Click SnoreO2 to connect the device with your App.

The last 4 digits of Serial Number (SN) of your Lookee Monitor are needed for Bluetooth Connection with your App. You can find the SN# on the back of the device when you take it off from the wrist band. Please refer to this picture below:

When it's working, the Bluetooth and LED will turn off in 2 minutes without operations. You can press the button to **enable Bluetooth and LED indicator again**.

LED indicators

Green Flashing	Low Battery (Not enough for one night)
Green ON	Battery is enough
Blue ON	Bluetooth connected /Charging
Blue Flashing	Date Recording is ended, ready to sync with App
Blue-Green Flashing	Error

Monitoring

1) Wear Lookee Sleep Monitor on your wrist and the sensor ring on the thumb. **If it's too tight, try another finger.**
2) Press the button to turn on the device to start monitoring. A red light in the Ring Sensor will appear.
   (If the working time is less than 2 minutes, the data will not be saved)
3) Turn off App while monitoring your sleep to conserve power.

If the LED is flashing in green, please charge the device fully before use.

Sync Data to App

After monitoring, take the device off, and you will see the green light is still on for a couple of seconds to save the data and then you will see the blue light is flashing which means the device is ready to sync data to your mobile device. Turn on App to sync the data. After the download is completed, you can check your sleep report on the App.

Alternatively, you can sync the data next time when you turn on the App.

Note: *The device can store 4 records; after it's full, the oldest record will be overwritten by a new record.* ***Please sync data in time.***

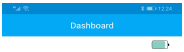
App Connection

To establish *Bluetooth* connection with App,

1) **Enable the Bluetooth in device**. Turn on device. If LED is off, press the button to turn on the LED.
2) **Enable the Bluetooth in phone**. (Android OS requests location enable to connect device via Bluetooth.)
3) **Run the App**, select the Device ID in App for the initial use only. Otherwise, it will be automatically connected with the device.

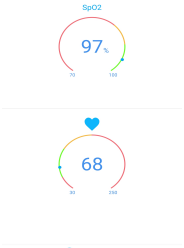
When the device is connected to App successfully, the **LED is blue**.

Note: DO NOT pair the device with your phone via Bluetooth in phone Settings.



Real-time View

When device is connected with App, Oxygen Level, heart Rate and Battery Power are showing on **Dashboard** in real-time.



Note:

- *To get accurate data, please avoid excess motions with your hand.*
- *Dashboard function will consume your battery faster.*

Smart Vibration Alarm Setting

The vibration is triggered when Oxygen Level drops below the threshold preseted on App, and stops when Oxygen recovers.

You can adjust the threshold to find the best one to fit your sleep condition. Make sure your **device is connected** to App first. Then you can configure it in **App->Settings**.

- You can **switch on or off** the vibration.
- You can adjust the **intensity** of vibration.
- You can adjust the **Trigger Level**. You can set the threshold lower if the vibration disturbs you too much in sleep. If you would like to get more protection from low oxygen saturation, you can set up the Trigger Level higher.

History Data and Sleep Report

On the App, tap the Results to see the data list. Slide to left to delete it. Select one to view the report. You can zoom in to see more details on the infographic. Tap the Magnifier Icon at lower right corner and touch and move the check line to see the data on the specific time.

Please consult your doctor for these data if you have any concern, or contact us for general inquiries.

O2 Score is overall assessment of oxygen condition, which is based on the data of events, frequencies, drop level and time of your oxygen in a night. The range is 0-10 (10 is best). It is provided for each record in App.

Example: O2 Score 7.5 

(in the APP)

Upgrade Firmware

1) Turn ON your device.
2) Open the App. Check new firmware of device in <Settings>.

Troubleshooting

Device is not turning ON	Battery may be too low	Charge the battery and try again.
	Some unexpected condition	Press the button for 10 seconds to reset
	Device might be damaged	Please contact your local distributor
The app cannot find the Device	The Bluetooth of your phone is off	Turn on the Bluetooth in the phone
	Device is off	Power on the device

	The LED in device is off	Press the button to turn on the LED
	The Bluetooth of your phone has some unexpected condition	Re-enable the Bluetooth of your phone
Sensor does not fit the thumb	Thumb is big	Try any finger
Does not vibrate	Vibration maybe set to very weak	Turn on and adjust the intensity as desired
	Trigger below is not set	Adjust Trigger below or Threshold as desired
Missing data	Data probably jumped to the earliest date	Update firmware

	Data was not sync to the phone	The device with its built-in memory can store data up to four nights and needs to be sync to the phone storage for record
Unable to find the App	App Name is ViHealth	Please search on App Store (iPhone or iPad) or Play Store (Android Phones)
Cannot sync to a Computer	Device isn't compatible yet syncing to a computer	Only works with Smartphones or Tablets with Android 5.0+, iOS 9.0+
Vibrations does not have a sound	Lookee Sleep Monitor doesn't have sound alarm built-in	The patented vibration alarm is designed for personal alarm in a quiet way, so it doesn't wake anyone but yourself

Battery drains fast	Battery wasn't charged fully	It records up to 20 hours during sleep and 12 hours during activity. But it depends on your sleep condition. More events during your sleep will drain the battery faster. Some may need to charge it daily and some in 2-3 days
		Check out the battery power from Dashboard on your APP when connected

Specifications

Weight	12g (main unit)
Size	44×25×15 mm (main unit)
Battery	Rechargeable Lithium-polymer
Charge time	2-3 hours
Wireless	Bluetooth 4.0 BLE
Oxygen level range	70% to 100%
Heart Rate range	30 to 250 bpm
Vibration	Trigged by low oxygen level
Recorded parameters	Oxygen Level, heart rate, motion
Data storage	4 records, up to 10 hours for each
Mobile App for iOS	iOS 9.0 or above, iPhone 4s/iPad 3 or above
Mobile App for android	Android 5.0 or above, with *Bluetooth* 4.0 BLE

Terminology:

Partial Pressure of oxygen dissolved in arterial blood is termed PaO2.

Percent saturation of oxygen bound to hemoglobin in arterial blood is termed SaO2.

When measured by a pulse oximeter, SaO2 is termed SpO2.

PaO2, the oxygen that is dissolved in plasma is the driving pressure that forces oxygen to combine with hemoglobin.

Hypoxemia is a below-normal level of oxygen in your blood, specifically in the arteries. Hypoxemia is a sign of a problem related to breathing or circulation, and may result in various symptoms, such as shortness of breath.

Physiology:

When oxygen demand increases, heart rate and cardiac output increases, which increases the flow of blood through the lung and the pressure required to force blood through the arterioles and capillaries of the lung. This is evident through a physical activity. Also a decrease in O2 saturation also forces the heart to increase its activity to compensate with the decrease of oxygen level.

The underlying principle of the oximeter is that it measures the redness of the blood – the redder the blood the higher the oxygen saturation.

Normal and low blood oxygen levels:

A range of 94-99% is normal for healthy adults' breathing room air which contains 21% oxygen. Anyone who is not achieving the critical blood oxygen saturation level of 90% (SpO_2) or of 55-60mmHg (PaO_2), may require additional oxygen.

If the level is below 90 percent, it is considered low resulting in hypoxemia. Blood oxygen levels below 80 percent may compromise organ function, such as the brain and heart, and should be promptly addressed. Continued low oxygen levels may lead to respiratory or cardiac arrest.

Low blood oxygen levels can result in abnormal circulation and cause the following symptoms:

- shortness of breath
- headache
- restlessness
- dizziness
- rapid breathing
- chest pain
- confusion
- high blood pressure

- lack of coordination
- visual disorders
- sense of euphoria
- rapid heartbeat