
SLEEP CAMPAIGN 2019

Rise Up with Better Sleep

Frequently Asked Questions

About the SleepScore App

What is SleepScore™?

SleepScore™ is the world's most accurate sleep improvement app. The SleepScore app uses Sonar Sensor Technology to track your breathing and body movement as you travel through each sleep stage. This data, combined with your profile and lifestyle information, gives SleepScore deep insights into your unique sleep patterns. It's how SleepScore is able to provide you with actionable, customized advice that's delivered through the Sleep Guide.

In the app, you will also find a series of easy-to-use, interactive tools that allow you to work with your own sleep data, allowing you to properly understand the way you sleep. You'll have access to your sleep history, so you can compare the quality of your rest to your daily lifestyle measures, like caffeine and alcohol intake. In addition, you'll be eligible to receive sleep solutions in the form of product recommendations, all of which have been tested by our expert team at SleepScore Labs and selected to fit your individual sleep needs.

Your SleepScore™, powered by ResMed, is an assessment of the quality and quantity of your sleep, plotted on a scale of 0 to 100, with the average SleepScore being 78. After tracking your sleep using SleepScore, your nightly SleepScore evaluates your rest against the following six parameters:

- Total sleep duration
- Time to fall asleep
- Time in light sleep
- Time in deep sleep
- Time in REM (Rapid-Eye-Movement) sleep
- Number of awakenings throughout the night

These variables are then measured against known sleep averages for your age and gender, which have been established by well-published research, expert advisors and the analysis of

over 6 million nights of sleep. Continued use of SleepScore in conjunction with adherence to the advice regarding sleep environment, health, and lifestyle should help you improve your score.

How does SleepScore track my sleep?

Without requiring you to wear a device or place anything on your bed, SleepScore measures the quality and quantity of your sleep.

SleepScore is powered by ResMed™ Technology – used for tracking more than 6 million nights of sleep so far. This patented sonar technology uses your phone speakers and microphone as a way to send and receive silent signals, sensing your breathing and body movement so that your overall sleep can be reliably assessed. And SleepScore doesn't record anything. Ever.

To maintain accuracy, SleepScore should not be used at the same time by two people in the same room.

How does SleepScore use my phone speakers and microphone to track my sleep?

Our technology harnesses the power of sonar to accurately track users as they move through different sleep stages. Sonar uses echo-location like what bats use to hunt at night. The bats make a noise and send sound waves into the environment around it. Those sound waves reflect off nearby objects, and some of them reflect back to the bats. Our app utilizes these same principles. The patented Sonar Technology uses your phone speakers as a way to send silent signals and those reflected waves are received back into the microphone.

Our advanced algorithm then interprets the shape and movement of the reflected waves to sense your breathing rate and body movement. The combination of these two signals is used to accurately decipher your movement through the various sleep stages at night.

How does it compare to other sleep tracking apps?

SleepScore's patented technology uses sonar as a way to measure your breathing rate and body movement to accurately stage your sleep.

Most apps use accelerometer technology or the microphone alone to measure your sleep. The problem with these methods is they can only detect movement, and often do so inaccurately. If these two signals are not getting reliable readings, they cannot accurately measure sleep. The SleepScore app, powered by ResMed technology, assesses both movement and breathing rate to get the most complete picture of your sleep. ResMed spent over 12 years and analyzed more

than 6 million nights of sleep to develop the algorithms that take these two signals to accurately measure your sleep.

How does SleepScore compare to other sleep tracking products?

When it comes to sleep tracking, you won't find anything that compares to the accuracy of SleepScore. SleepScore is different from a variety of standpoints. Firstly, SleepScore is powered by patented ResMed technology that uses sonar as a way to measure your breathing rate and body movement to accurately determine your path through the sleep stages. Secondly, it uses the speaker and microphone from your smartphone to measure your sleep, so there's no need for stand-alone hardware like a mattress strip or wearable fitness tracker. Thirdly, it sits on your bedside table, so it's completely non-contact! Finally, its accuracy is far superior to other non-contact sleep tracking apps. SleepScore is based on the same best in-class algorithms that SleepScore Max uses, which have been validated against Polysomnography (PSG) and Actigraphy, the two clinically accepted standards of measuring sleep, with these results published in over 10 scientific peer-reviewed papers. The algorithms have been developed over 12 years with over 6 million nights of data.

So, rest assured, just like SleepScore Max, your SleepScore app is the most accurate non-contact way to measure your sleep outside of a sleep lab.

How does SleepScore help my sleep?

SleepScore uses sonar sensor technology, called echolocation, to track your breathing and body movement as you travel through each sleep stage. This data, combined with your profile and lifestyle information that you input, gives us deep insight into your unique sleep patterns and overall sleep health. It's how SleepScore is able to provide you with actionable, customized advice, delivered through the Sleep Guide.

In the app, you will also find a series of easy-to-use, interactive tools that allow you to work with your own sleep data to properly understand the way you sleep. You'll have access to your sleep history, allowing you to compare the quality of your rest to your daily lifestyle measures, like caffeine and alcohol intake. In addition, you'll be eligible to receive product recommendations, all of which have been tested by our expert team at SleepScore Labs and selected to fit your individual sleep needs.

Setting up the SleepScore App

How do I set up my smartphone to accurately track my sleep?

There are easy to follow instructions inside the SleepScore app that describe how to accurately set up your phone for the most accurate reading of your nightly sleep.

Here are the steps you should implement to set up your phone accurately:

1. Plug in your phone before you start tracking.
2. Place your phone no more than arm's length away from you.
3. Make sure the phone is above the top of your mattress, about 6 inches is ideal.
4. Point your speakers, which are located at the base on your phone, towards your chest.
5. Position the phone slightly off the edge of the bedside table.
6. Keep your phone facing up. You can lock the phone if you prefer.

Some other things to keep an eye on are ensuring any phone case is not blocking your phone speakers in any way. For a quick visual tutorial check out this easy set-up [video](#).

Still having problems? Watch this video for [more troubleshooting tips](#).

Why it is important to position my smartphone correctly?

Since you only need to use your smartphone to track your sleep, it's important to set up your smartphone correctly to get the best measurement. If you don't, this could negatively impact the accuracy of the sleep data gathered by SleepScore.

Check out this video for [quick positioning tips](#).

How do I know where the speaker and microphone are located on my smartphone?

Because of the unique capability of the patented SleepScore by ResMed technology, each supported smartphone is tested and calibrated to ensure the accuracy of SleepScore. For all supported phones, the main speakers and microphone are located at the bottom of the phone, where the charging plug is located. As a reminder, it's important to always place your speakers pointing towards your chest while tracking your sleep. This will result in the most accurate reading of your sleep.

Can I keep my smartphone case on while tracking?

In some instances, smartphone cases have been shown to interfere with our sonar technology, resulting in an inaccurate SleepScore. If you are experiencing problems getting your SleepScore and you have a phone case, it is recommended to tracking with the case off to see if it helps.

You can also try cleaning your case and the area around your speakers and microphone to improve the results of your SleepScore app.

Why does my smartphone need to be facing up?

SleepScore requires the screen be facing up towards the ceiling because of microphone and speaker position on supported smartphones. This positioning ensures the most accurate results.

Your bedroom environment and the SleepScore App**Can SleepScore track two people at the same time?**

SleepScore can only record one person's sleep at a time. Be sure to place the phone closest to the person who is tracking their sleep. Two people in a bed does not affect the accuracy of the results.

Currently, two SleepScore apps cannot track sleep in the same room at the same time, as they will interfere with each other and produce inaccurate results. However, multiple people can use SleepScore in the same home, provided that they are tracking in different rooms.

If you and your bed partner would both like to track your sleep using SleepScore, it is recommended that one of you uses the SleepScore app and the other uses SleepScore Max.

Please be aware that because both apps need to access your microphone in order to work, it's not possible to use the same smartphone to record a sleep session using both the SleepScore app and SleepScore Max at the same time.

What if two people are in the room at the same time?

SleepScore is intelligent enough to always track the closest person to the smartphone that's tracking. Simply make sure that the smartphone deploying SleepScore is on the bedside table next to the person you want to track. Two sleepers in the same bed have been shown to not affect accuracy but note that only one partner may track using SleepScore at a time.

Can two SleepScore sessions be in-progress in the same room at the same time?

Currently, two SleepScore sessions cannot be in-progress in the same room at the same time, as they will interfere with each other and produce inaccurate results.

Does the SleepScore app work while I am also using CPAP?

Yes, the SleepScore app works while also using a CPAP machine at night.

Starting and Stopping a Sleep Session

When should I start and stop a sleep session?

You should always start your sleep session as soon as you are ready to start falling asleep, so you get the best approximation of how long it takes you to fall asleep. You should stop your sleep session after your final wake period.

Does the app start or stop tracking my sleep automatically?

In order to give the most accurate readings, the app does not automatically start or stop sleep tracking. It is recommended that you start tracking when you are trying to go to sleep and stop after your final wake to ensure most accurate results.

What if I hear a noise from my smartphone when I start a sleep session?

Occasionally, when starting a sleep session, it is possible to hear a small popping or clicking sound emitted through the phone's speakers. SleepScore always performs a 30-second bedroom environment and phone check before the start of a new sleep session. In some cases, some frequent clicking may also be heard during the night but again, this is normal and varies from phone to phone.

Using the Sleepscore App

Does SleepScore work with my smartphone screen locked?

SleepScore will continue recording your sleep if your phone is locked. Whether you keep your phone screen locked or unlocked, your accuracy will not be affected. If you don't wish to lock the screen, the app screen will dim while tracking to ensure the brightness doesn't disturb your sleep. If you utilize the Smart Alarm and lock your phone screen, you will need to unlock your phone before turning off the Smart Alarm.

Why do I need to charge my smartphone during a sleep session?

Our extensive testing has shown that by plugging in your phone, SleepScore delivers the most stable results. It's also important to plug your phone in to make sure your battery doesn't die mid-session. If your phone dies during a sleep tracking session, you won't get your full night's sleep recording.

Can I use my smartphone while I'm tracking a sleep session?

Yes, but tracking will be automatically paused any time you move the smartphone. This ensures that if the smartphone is in motion, it will not pick up poor signals and lead to inaccurate results.

Why does the app pause when I pick up my phone?

During a sleep tracking session, other loud sounds in your bedroom or your phone's positioning can interfere with the sonar sensor. To uphold SleepScore's accuracy, if you pick up your phone during a sleep session, the tracking is paused until the phone is back on a level surface and no other apps are playing sounds. Sleep tracking will automatically resume at this point.

Can I listen to music from my smartphone while tracking?

No. It's possible other sounds from the smartphone in use will interfere with the sonar signal. SleepScore will automatically pause your sleep session if you are playing any sounds, taking a call, or using other apps on the smartphone during a sleep session. The sleep session will automatically resume once you place your phone back into position on your bedside table.

Can I use my premium account on any device?

Yes. Once you have redeemed your code and activated your premium account, you will be able to access your premium account on any supported device. Make sure you sign in with the same email you used to register your premium account.

Questions About Sonar**Are sonar waves safe?**

Yes, the sonar uses sound waves and is completely safe. The sound waves used in the SleepScore App are just above the level of adult human hearing and have been not been shown to pose any danger to those in range.

What sound frequencies are used for tracking?

During a sleep tracking session, SleepScore and SleepScore Max only process the sonar signals in its range and ignores other sound frequencies. At the end of every sleep session, all audio data is destroyed, so no sound is ever stored or saved.

Can I hear the sounds of the sonar signal?

When tracking your sleep, SleepScore uses advanced sonar at sound frequencies that are known to be above the level of adult human hearing. SleepScore has had some infrequent instances of children and young adults being able to hear the sensor sounds. This is because younger people are able to hear different sound frequencies compared to adults. It has not been shown to be an ongoing disturbance to children or young adults.

Can pets hear the sonar signal?

When tracking your sleep, SleepScore uses advanced sonar at sound frequencies that are known to be above the level of adult human hearing. Due to their more sensitive hearing, it is possible that pets can hear the sonar frequencies. Our extensive testing has shown that this is not an ongoing concern for pets.

Do I need to be concerned with mobile radiation?

Because the SleepScore App requires that your phone be about arm's length away from you at night, as opposed to being right next to your head, there is no significant risk for mobile radiation concerns. In addition, you can use the SleepScore app in airplane mode without any problems.

Troubleshooting

What happens if I my SleepScore doesn't seem accurate?

It's possible that interference or incorrect positioning of your phone could affect the accuracy of the sleep tracking. Some possible causes include:

1. Phone setup and positioning. Check out [our set-up video](#) for more details.
2. Interference with other sounds – sound machines, fans, stereo, TV, or other loud electronics.
3. Phone cases that block speakers or microphone.
4. Issues with your smartphone's speakers or microphone that cause them to operate abnormally.
5. Another SleepScore app recording a sleep session in the same room.
6. Electronic interference from other electronic devices.
7. If your smartphone becomes unplugged after starting a sleep session, the sleep tracking will automatically pause, causing you to get an incomplete reading of that night's sleep.
8. If you use your phone frequently during a sleep session, this automatically forces sleep tracking to automatically pause, resulting in a potentially inaccurate reading of your time asleep.

If sounds or other electronic devices are far enough away and on low volume, they should not affect your sleep tracking.

SleepScore always performs an interference check at the start of each sleep session to check your bedroom environment. However, for best results, it is recommended that you turn off any electronic devices that emit sounds. When you complete a sleep session in the morning, SleepScore will tell you if it picked up something from the nightly interference check.

Do television sounds interfere with SleepScore?

Depending on the location of your television, the volume level, and the type of sound being emitted, it is possible that television sounds may interfere with the accuracy of SleepScore.

SleepScore always performs an interference check at the start of a sleep session to check your bedroom environment. However, for best results, it is recommended that you turn off any electronic devices that emit sounds.

Do other electronic devices interfere with the sleep tracking?

Depending on the location of your electronic devices, the volume level, and the type of sound being emitted, it is possible that electronic devices may interfere with the accuracy of SleepScore.

SleepScore always perform an interference check at the start of a sleep session to check your bedroom environment. However, for best results, it is recommended that you turn off any electronic devices that emit sounds.

Do bed covers, pillows or other bedding interfere with the sonar sensor sleep tracking?

Based on our extensive testing, bedding of all weights and densities have not been shown to interfere with sleep tracking or the accuracy of the results.

Will air conditioning or an electric fan interfere with the sleep tracking?

Depending on the location of your air conditioning or an electric fan, the volume level, and the type of sound being emitted, it is possible that air conditioning or an electric fan may interfere with the accuracy of SleepScore.

SleepScore always performs an interference check at the start of a sleep session to check your bedroom environment. However, for best results, it is recommended that you turn off any electronic devices that emit sounds.

What if I have periods of no signal in my sleep record?

It's possible that interference or incorrect positioning of your phone could affect the accuracy of the sleep tracking. Some possible causes include:

1. Phone setup and positioning. Check out our [set-up video](#) for more details.
2. Interference with other sounds – sound machines, fans, stereo, TV, or other loud electronics.
3. Phone cases that block speakers or microphone.
4. Issues with your smartphone's speakers or microphone that cause them to operate abnormally.
5. Another SleepScore app recording a sleep session in the same room.
6. Electronic interference from other electronic devices.
7. If your smartphone becomes unplugged after starting a sleep session, the sleep tracking will automatically pause, causing you to get an incomplete reading of that night's sleep.
8. If you use your phone frequently during a sleep session, this automatically forces sleep tracking to automatically pause, resulting in a potentially inaccurate reading of your time asleep.

If sounds or other electronic devices are far enough away and on low volume, they should not affect your sleep tracking.

SleepScore always performs an interference check at the start of each sleep session to check your bedroom environment. However, for best results, it is recommended that you turn off any electronic devices that emit sounds. When you complete a sleep session in the morning, SleepScore will tell you if it picked up something from the nightly interference check.

What if I get a 0 SleepScore in the morning?

A zero SleepScore means that the sonar technology was paused through the entirety of your night. This is due to your smartphone playing audio from another source, such as directly from your phone speakers, through another app, or through a Bluetooth connected device, such as air pods or a speaker.

If you get a zero SleepScore in the morning, try to disconnect your smartphone from any Bluetooth devices before bedtime. You can also check to make sure there are no background apps playing audio prior to tracking.

Support**How is my privacy protected?**

SleepScore Labs takes your privacy very seriously, and is committed to protecting the security of your personal information, including sensitive sleep data. Your sleep data is stored securely in the cloud on servers located in the United States and on your smartphone, providing you with constant access to your personal sleep records, history, and suggestions. Your data is only accessed through your personal

user account. It is not publicly accessible. Learn more about the privacy of your data by checking out our entire [Privacy Policy](#).

What smartphones are supported with SleepScore?

Because every single phone has a different speaker and microphone set up, SleepScore needs to verify the performance of each phone handset to ensure accuracy. The following phones have been validated for accuracy and are supported by SleepScore:

Apple

iOS software 10.3.3 and above

iPhone 6 & 6Plus

iPhone 6s & 6s Plus

iPhone 7 and 7 Plus

iPhone 8 and 8 Plus

iPhone X

iPhone XS,

iPhone XS Max

iPhone XR

Android phones

Please note, while SleepScore is continually working to validate more Android phones, not all Android models are fully supported. If you are using an unsupported Android model, you will still be able to track your sleep using your device, but some SleepScore app features and functionality may vary based on your device model.

For the optimal experience, it is recommended to tracking your sleep on a fully supported device. Below you will find the list of fully supported Android devices.

Android software 6 and above

Samsung Galaxy S7 Edge and S7

Samsung Galaxy S8 and S8+

Samsung Galaxy S9 and S9+

Samsung Galaxy Note 8 and 9

Google Pixel 2 XL

SleepScore continually validate and add new supported phones. The list will be updated accordingly.

GDPR Compliance

The data protection statement from ABB is stored on the program landing page «go.abb.com» I n the section «data protection». For the data privacy policy from SleepScore Labs, please click here.

What happened with data that is being collected by device, both by regular input (information user needs to provide to use it – date of birth, height, weight, medical disease etc.) and using microphone?

The SleepScore apps use sonar to detect respiration rate of users. The sonar records audio on the phone and processes it to generate Sleep Stage data. The audio does not leave the users device and once processed, it is then deleted. Sleep stage data is encrypted and recorded in our secure cloud environment, so that users can retrieve it later and view trends.

Along with sleep stage data SleepScore also record certain user demographic data, which is important when calculating the sleep score or in providing advice, these are:

Date Of Birth, Gender, Height, Weight, Time Zone, some location data is optionally recorded.

An optional onboarding questionnaire records details about their relevant habits and behaviours, such as exercise level, and an optional daily questionnaire asks about their caffeine and alcohol consumption. All of which is also stored in the cloud and used to give more accurate advice to help improve users sleep.

What data is moved out of device and enable clear consent for that (opt-in)

SleepScore only shares personal data with the consent or as necessary to complete any transaction or provide any product or service the user has requested or authorized. Personal data is never sold to any third party. For example, the user may wish to share their sleep data with a connected third-party partner such as a sleep doctor, this can only occur only with their explicit consent. In order to perform operations such as emailing users, it is necessary to share certain information with service providers, only the information necessary to perform this operation is shared and only for that specific purpose. All service providers are vetted. Sleep record data is anonymized to support research and this data (with no personally identifiable content) may be shared with third parties for scientific research purposes. SleepScore details this as part of the [privacy policy](#).

What data is stored in the cloud and for how long

The data detailed here is encrypted and stored in our secure cloud, a user can request removal of their personally identifiable information, this will be completed within 30 days of the request. Where a user has not explicitly requested the removal of their Personal Identifiable Information it will still be delete from the system after 7 years of inactivity.