

Contents

General

1. [News](#)
2. [Delivery contents eSense Respiration](#)
3. [Troubleshooting Measuring Signal and Breathing Belt](#)
4. [EC Declaration of Conformity](#)
5. [Contact](#)

Breathing

6. [General Information about Breathing and Breathing Training](#)
7. [Essential Functions of eSense Respiration](#)
8. [Explanation of the Individual Measured Values](#)

Biofeedback Training

9. [Introduction to eSense Respiration](#)
10. [Operating Instructions for eSense Respiration](#)
11. [Breath Measurement and Biofeedback Training](#)
12. [Procedures](#)
13. [Open Training](#)

Software & Accessories

14. [Extending the cord of the eSense](#)
15. [Smart Bulbs \(optional\)](#)
16. [Adapter for Apple devices](#)

eSense App (Android / iOS)

17. [Functions of the Mindfield eSense App](#)
18. [General notes](#)
19. [General view & Open Training](#)

- 20. [Breath Pacer](#)
- 21. [Biofeedback Snake](#)
- 22. [Survey \(optional\)](#)
- 23. [Pie Chart \(after the measurement\)](#)
- 24. [Procedure Overview](#)
- 25. [Procedure editor](#)
- 26. [Add new module](#)
- 27. [Overview of the modules](#)
- 28. [Creation of a procedure](#)
- 29. [Meditations](#)
- 30. [Own media \(photos, videos and audios\)](#)
- 31. [General settings](#)
- 32. [In App Purchases](#)
- 33. [Archive \(overview\)](#)
- 34. [Archive \(single view\)](#)
- 35. [Marker feature](#)
- 36. [Compatible Android and iOS devices](#)

eSense Web App (www.esense.live)

- 37. [eSense Web App](#)

Account & Cloud (optional)

- 38. [Account and Cloud](#)
- 39. [Groups](#)
- 40. [Privacy policy](#)

1. News

New in 5.2.0 (Android)

Removed background location access permission under Android (was never used)

New in 5.6.4 (iOS)

We have added the new eSense Muscle (2-channel EMG sensor) to the app!

We have fixed a few more small bugs in this version. Errors in Italian and French language and in unlimited time measurements in eSense Pulse and eSense Respiration.

2. Delivery contents eSense Respiration



eSense Skin Response with eSense Respiration and Smartphone

Scope of delivery of the eSense Respiration:

- Mindfield® eSense Respiration Sensor incl. replacement spring spare spring
- stretch belt
- eSense App from Mindfield (Apple App Store, Google Play or Amazon App Store)
- Detailed instructions for effective biofeedback training

Attention!

- To run eSense Respiration, you need an eSense Skin Response!
- eSense Respiration is an additional product to eSense Skin Response.
- eSense Skin Response is available in a package with eSense Respiration at a reduced price.
- Users who already own eSense Skin Response can purchase eSense Respiration as a supplement.

Notes

If you would like to have a longer cable between the eSense and your smartphone or tablet, you can extend the original cable of the eSense. [More about this in our article.](#)

Some newer iOS devices without the classic 3.5mm headphone jack need an adapter. [More about this in our article.](#)

3. Troubleshooting Measuring Signal and Breathing Belt

1. If there are any problems using the eSense Respiration, please check the belt and spring. The harness should be positioned around your chest or abdomen in a tensioned position but should not be uncomfortably tight or squeezed. The spring is under the belt. You can also put your finger on the spring to see whether it responds and leads to a deflection of the curve during a running measurement.
2. Check the connection between the eSense Skin Response and eSense Respiration housings to make sure the snap fasteners are properly attached and that the other end is plugged into the microphone input.
3. Should the spring break or otherwise deteriorate in quality, a replacement spring is included. To change the spring, slightly bend it upwards with your finger, then pull it out to the front. The new spring is simply pushed back into the housing.

4. EC Declaration of Conformity

according to the following guidelines:

Electromagnetic compatibility (EMC) (2004/108/EC)

RoHS substance bans (2011/65/EU)

WEEE Waste Electrical Equipment Disposal (2002/96/EG & 2008/34/EG)

The manufacturer / Distributor / Authorized representative

Mindfield Biosystems Ltd.
Hindenburgring 4
D-48599 Gronau
Germany

WEEE-Reg.-Nr. DE 24465971

hereby declares that the following product:

"Mindfield® eSense Respiration" in combination with the Mindfield® eSense Skin Response"

complies with the provisions of the Directives identified above, including their amendments in force at the time of the declaration.

The following harmonized standards have been applied:

DIN EN 60950-1 Information technology equipment – Safety – Part 1: General Requirements (2011-01)

DIN EN 55022 Information technology equipment – Radio disturbance characteristics (2008-05)

DIN EN 55024 Information technology equipment – Immunity characteristics (2011-09)

Place: Gronau

Date: 08. May 2019

Niko Rockensüß, Managing Director



The Mindfield eSense must be disposed of as electronic scrap in accordance with legal regulations. WEEE-Reg.-Nr. DE 24465971

5. Contact

Mindfield® Biosystems Ltd. · Hindenburgring 4 · D-48599 Gronau

Tel: + 49 (0)2565 406 27 27 · Fax: + 49 (0)2565 406 27 28 · E-Mail: info@mindfield.de

If you have questions about our products or need support, please do not hesitate to contact us! To avoid inappropriate advertising and spam, we ignore messages with specific content. We therefore ask you to not write links in the contact form. If this should be necessary, please write us an email.

Please do not send unsolicited packages to us. Unfree returns will not be accepted and cannot be processed.

6. General Information about Breathing and Breathing Training

Our state of mind is reflected in our breathing. If we are pleased or tense, we usually breathe quickly, irregularly and flatly. Positive as well as negative stress is reflected in this way. If, on the other hand, we are relaxed and calm or sleepy, our breathing is usually slow, even and deep.

All in all: Conscious, slow, deep breathing, preferably into the stomach, leads to a clear relaxation! We take advantage of this aspect.

Breathing has a special role in biofeedback in that we can consciously control this parameter. In everyday life we rarely think of our breathing and breathe almost exclusively unconsciously. If our unconscious breathing patterns are disturbed by chronic stress, pain or other psychological or physical stresses, this often leads to discomfort and the maintenance of stress.

With breathing training, you can train and improve your breathing, achieve deep relaxation states and significantly increase your general well-being. Breathing therefore plays an important role in almost all relaxation techniques such as autogenic training, yoga, meditation and progressive muscle relaxation.

Direct biofeedback of breathing; i.e., real-time feedback of breathing pattern, depth and frequency helps our consciousness to achieve new, better breathing patterns faster and more precisely than without biofeedback. The focus on feedback prevents the otherwise so frequent drift in thoughts and loss of concentration on breathing. Many meditation techniques involve the observation of breathing, which is very difficult for many beginners. Breathing biofeedback makes this entry much easier.

After a learning phase of some training sessions, respiratory biofeedback leads to a new feeling of switching off and full focus on breathing, more and more without the feedback of biofeedback, as a better self-perception is developed. In chapter "Training sequence" the sequence of a respiratory biofeedback training program is described.

Follow this suggestion and develop your own routines and integrate breathing training into your everyday life, first with and later without biofeedback. The eSense Respiration is a powerful tool to help you breathe better.

7. Essential Functions of eSense Respiration

eSense Respiration is a breathing belt sensor that uses a smartphone/tablet and an app to accurately measure your breathing. The sensor focuses on the feedback of your breathing. eSense Respiration provides breathing training with biofeedback and serves to improve your breathing pattern, your breathing duration, breathing depth and thus your health! Breathing plays an important role in general well-being, and breathing exercises are part of many relaxation techniques around the world.

The eSense Respiration with the eSense App offers you:

- A pressure sensor to record your breathing (breathing frequency, breathing depth, breathing pattern;
(application always in connection with eSense Skin Response, as a sensor cable))
- A stretch belt that is comfortable to wear, washable and durable
- Unlimited recording duration
- Unlimited number of sessions and users
- Extensive statistics for breath analysis
- Breathing aid for breathing training with freely adjustable intervals, auxiliary tones and more
- Export of measurement data as a csv file with compatibility to other software programs for further analysis
- Export of curves, diagrams and statistics as a PDF report
- To train and improve your breathing, the app offers a wealth of biofeedback feedback:
 - Bar feedback
 - Curve feedback
 - Video feedback (videos included and own videos freely selectable)
 - Music feedback (music included and own music freely selectable)
 - Tone feedback (change of pitch by the measured values)
 - Tactile feedback through vibration (only smartphones; tablets cannot vibrate)
 - Feedback through color changes of smart bulbs (Bluetooth bulb and Philips Hue products are controllable)
- Set any number of markers during a recording
- Different, prefabricated training procedures are included in the app
- Free training according to your wishes with any biofeedback variant or several at the same time
- Extensive in-app help and manuals
- Regular updates of the app
- **Possible combination with the eSense Pulse for heart rate variability biofeedback with determination of the coherence between heartbeat and respiration!**

8. Explanation of the Individual Measured Values

Regularity (developed specifically by Mindfield)

We also included the regularity as another value. This is also recorded by a formula developed by us and displayed in color (from a measurement duration of 5 minutes or more) in the overview after the measurement:



Attention: The colored coloring of the regularity does not correspond 100% with the color distribution in the pie chart as these are detected in different ways.

For the background coloring of the oscilloscope, a period of 20 seconds is taken and it is determined which regularity value is the most common color.

The pie chart, on the other hand, uses all the numeric regularity values of the entire session, with the percentages in red, yellow, orange, and green taken from them.

General respiration values

There are three categories of readings that we cover with the eSense app: **Breathing rate, depth and pattern.**

Respiratory rate

The breathing rate is the number of breaths per minute. In other words, how often you breathe. **No specific value** is sought. However, most people tend to breathe too quickly, especially during stress, so they tend to aim for slower breathing (fewer breaths per minute). The number of breaths per minute also **depends on the activity**.

Breathing depth

In simple terms, the depth of breath means how deeply you breathe. The **Maximum RA (Respiration Amplitude)** is the maximum of the calculated amplitude. The higher this value is, the deeper you breathe. A **high value** is sought. **Independent of the activity**, deep breathing is generally desirable, independent of the activity. Some breathing techniques such as the Wim Hof method work with particularly fast and deep breathing (hyperventilation).

Breathing patterns

The breathing pattern is the form of breathing. This is represented by the graph. The aim is to achieve a **uniform graph**. You can see an example of an even graph on page 9 of this manual. A nice even curve is also desirable **regardless of the activity**.

9. Introduction to eSense Respiration

Biofeedback breathing training with eSense Respiration is about observing your breathing through changing bars, curves, music, sounds, vibrations, light from light bulbs, and more. This gives your consciousness a new perspective on breathing, self-perception is trained, and a feedback cycle is created.

But it is also about the change of the breathing, towards a slower, deep abdominal breathing, which has many positive effects and can be trained by a breathing target in our app.

We combine the measurement and feedback of breathing in the eSense App with guided relaxation exercises, guided breathing exercises and meditation and offer you a total experience beyond biofeedback. In addition to extensive feedback variants, you can evaluate your measurements with many statistics, document your progress and export the recordings as CSV and PDF files. Your data belongs only to you! You have full access to the raw data.

Respiration is measured according to the principle of strain measurement. With every breath, your chest and abdomen space will rise and fall, and the belt you put on over your clothes will stretch slightly. You can put the eSense Respiration Stretch Belt either around the chest or around the abdomen. Abdominal breathing is measured and trained more frequently. eSense Respiration has a spring that translates the pressure of the belt into readings. The eSense Respiration Sensor is used for transmission to your smartphone and tablet via its microphone input. Our eSense app evaluates these signals and displays them in a comprehensive form.

10. Operating Instructions for eSense Respiration

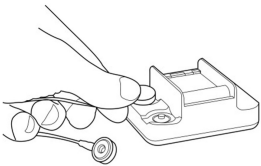
Contents of the packaging:

- eSense Respiration Sensor Unit (black box with inserted spring + one replacement spring to replace in case of defect of inserted spring)
- eSense Respiration Stretch Strap, variable length adjustable
- Printed guide

Remove the eSense from its packaging. Put on the expansion strap as shown and adjust it to the correct length.



You can wear the belt either around the chest or around the abdomen. In most cases, the measurement and training of deep abdominal breathing are useful.

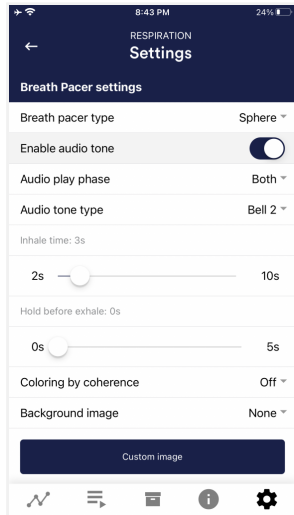


The belt should sit quite loosely and should not restrict you in any way! A small amount of pressure on the spring of the sensor unit is enough. After applying the strap, slide the sensor unit under the strap, connect the cables from the eSense Skin Response to the sensor's push button connectors, and plug the other end of the eSense Skin Response into the microphone input of your smartphone or tablet. If your device no longer has a microphone input, an adapter may be required (e.g., for the newer Apple iPhones/iPads). This is available from the manufacturer and the eSense works fine with it.

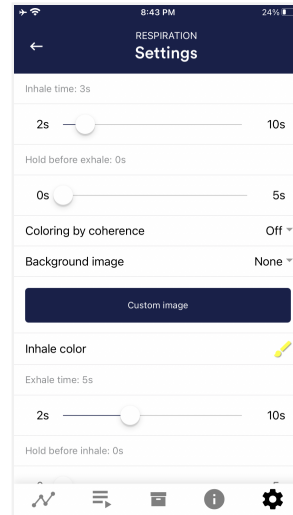
11. Breath Measurement and Biofeedback Training

To reduce stress and its vegetative symptoms, biofeedback training can be performed by monitoring and reporting your breathing. **Frequently, feedback alone is enough without specifications, and the user automatically breathes more calmly and evenly.**

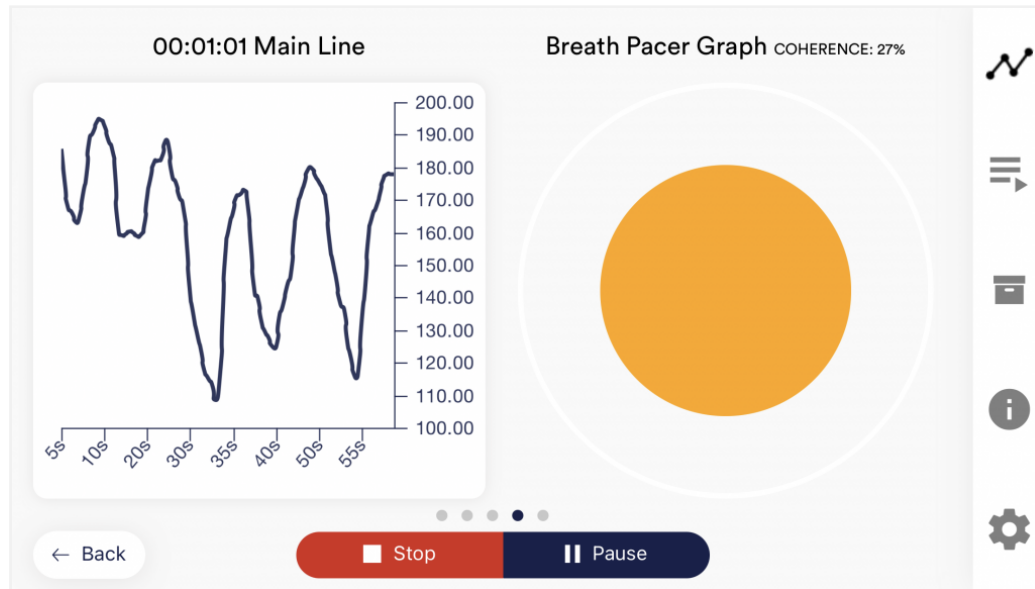
In addition to this measurement and feedback, it is also possible to **specify** how the user should breathe. The app includes a breathing aid for this purpose. A bar, line or sphere changes by rising or zooming to symbolize inhalation. A falling of the beam or lines, as well as a shrinking of the sphere shows an exhalation. The user follows this guideline by breathing. The breathing target is freely adjustable regarding inhalation – hold – exhale – hold.



Adjustment options for breathing aid (sphere; line) and tones



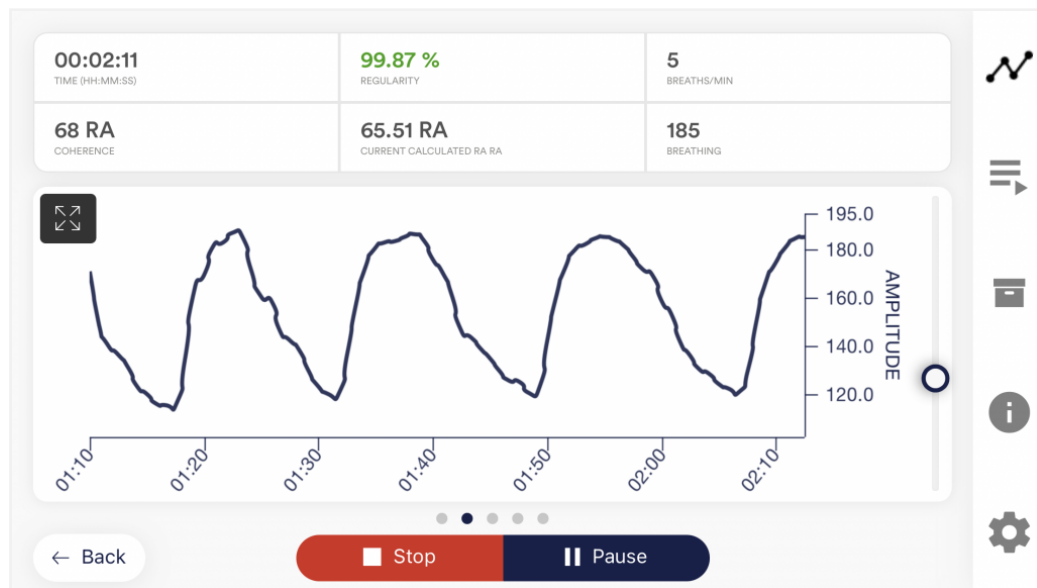
Adjustment options for the breathing aid with freely selectable times for inhalation, holding, exhalation, holding and the resulting breaths per minute



Breathing aid as a ball (right) with a measured breathing curve (left) and coherence between breathing and curve

Breathing can be used quite universally for biofeedback training. In stress medicine and psychophysiology, respiratory biofeedback is used, for example, for depression, heart disease, asthma, anxiety disorders and insomnia. Breathing biofeedback is also common in coaching and competitive sports. Improving breathing patterns can help relieve tensions, cope with stress and anxiety, and help you react more calmly in everyday life. If you suffer from an illness, do not treat yourself; instead, consult a therapist. eSense Respiration is not a medical device and may only be used for stress reduction.

The eSense Respiration is a handy device. It can record respiration and display it as a measurement curve, for example. Look at the following example of a measurement at rest and with even, slow breathing:



Sample measurement curve eSense Respiration at rest, with deep, slow and even respiration (RA = Respiration Amplitude)

As you can see in the example above, the curve is a distinct sine wave and the amplitudes are very uniform. Such a waveform is desirable.

The curve looks very different under requirements and with uneven breathing, as the following figure shows:



Example of eSense Respiration curve for tension or requirements and erratic, irregular, fast and shallow breathing.

In this example above, the curve is uneven, and the deflections are different.

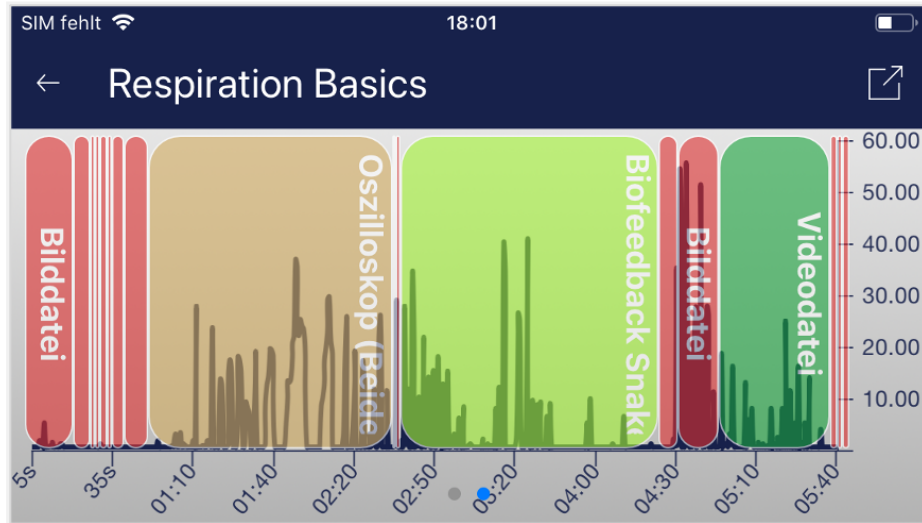
In the eSense app, you can do a free training or complete predefined procedures. **Your breathing is reported back, and an increase (inhalation; belt expanding) changes a feedback in a certain way, while a decrease (exhalation; belt contracting) changes a feedback in a slightly different way.**

As feedback there is; e.g., a video, which becomes brighter or sharper in the positive case (darker or blurred in the negative case), a music, whose volume changes, tones, which change in the sound, a vibration of the smartphone, and much more. Of interest is the function of controlling a smart light bulb (Philips Hue or Magic Blue), whereby breathing is reflected in the change in color and brightness of one or more lamps. You can use your breathing to illuminate an entire room in different ways. A biofeedback training session consists of four training phases. Plan about 60 to 90 minutes for the first session, during which you can do the training undisturbed and coherently. Detailed instructions can be found in the chapter "Training sequence".

12. Procedures

A procedure consists of different modules. The procedures can be used, for example, to implement instructions for relaxation, a stress test, a defined biofeedback training session or tasks for research purposes.

The possibilities are manifold. During a procedure, your breathing is naturally recorded. At the end of a procedure, a summary is displayed, showing your readings for each module and the overall view.



Overview after a procedure

We recommend that you **try the demo procedures** included in the app. These give you a guided overview of the different modules and functions.

The included procedures are also protected by a password in order that those can't be edited or deleted by accident. You can any time create a copy of those procedures without a password and change it as you wish.

We also explain in detail how you can create and edit your own procedures in the chapter procedures settings.

13. Open Training

As a second option you can also conduct an open training. This is compared to the procedures a bit more complex. We therefore explain a typical open training session which consists of 4 training phases.

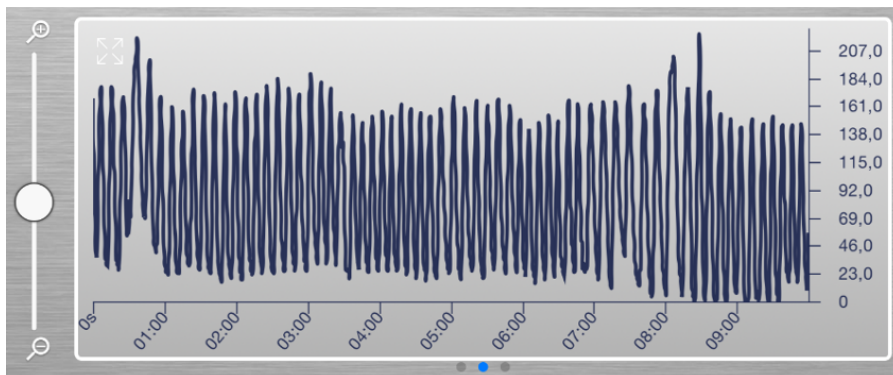
Preparation and start

1. Follow the first steps of preparation from the previous chapter and choose an open training in the selection screen after starting the app.
2. Put on the stretch belt around your chest or belly as described in the previous chapter.
3. The belt should fit loosely over the clothing and should not slip during the measurement. Probably, it is not possible to find the optimal setting right away. This is quite normal. Above all, the belt should not give the feeling of tightening when breathing. The spring in the sensor is very sensitive, so it is enough to put on the belt only loosely, so that minimal pressure occurs.
4. Rotate your smartphone or tablet to landscape so you can see the oscilloscope.
5. Now start a free measurement (simply press "Start" on the main screen) and look at your breathing curve. Now it is a matter of finding an optimal setting for the belt, where an expansion of your chest or abdomen leads directly to a force transfer to the sensor and to a deflection of the measuring curve upwards. In most cases, you will then move within a measuring range of 20 to 200.
6. Below 20 the belt is very loose, and you should not let the curve touch the zero point of the Y-axis. If you have exhaled completely, a minimum pressure should still be applied.
7. Over 150-200 the belt is too tight from our experience and the pressure is unnecessarily strong. Loosen the belt slightly at the buckle without opening or taking off the belt. Gain experience with an optimal attitude. The belt retains its setting even for the next application.
8. Under no circumstances should you have the feeling that you are too restricted and therefore restricted in your breathing.
9. In order to be able to compare sessions optimally, you can set the time for a measurement in the settings of the eSense App and limit it to a value, e.g. 10 minutes. The measurement then stops automatically after this time has elapsed. In the default setting of the eSense App, the measurement duration is unlimited. It is recommended to set a time after the first experiments and to adjust the settings to correspond to the desired, regular training duration. This way, you will get an optimal evaluation and be able to compare your training sessions later on.

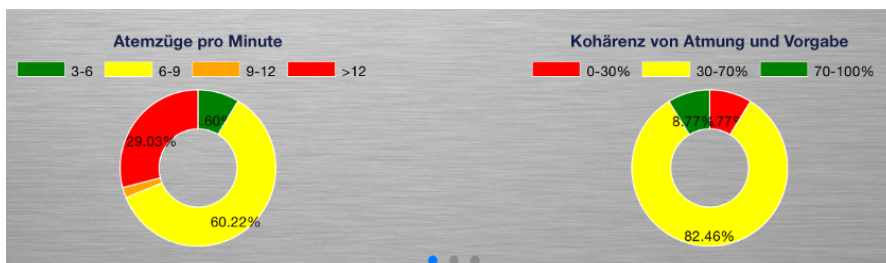
First stage (observe and experiment; determine your initial status)

1. First, determine a 10-minute baseline (default state without influence) at rest. Before doing this, you should have found the optimum setting for the breathing belt, as described in the previous section. It always makes sense to compare measurements of the same length, so use the option in the settings to set the session length to a fixed duration, so you do not have to stop at the right time. Now set the session length to ten minutes.
2. Try to relax as much as possible **and DO NOT observe the breathing curve** during these first ten minutes, as this would falsify the measurement.
3. Breathe calmly, deeply and evenly as you feel comfortable, but **without forcing your breathing!** Follow pleasant thoughts and memories.
4. Hold your smartphone or tablet in landscape mode. Look at your breathing curve **after the first ten minutes**. Were there sections of an even curve? Were there strong fluctuations and irregularities? How do you rate your ability to relax during the measurement? You may already be able to determine a connection between the curve and the tension or relaxation you feel. If not, no problem – this will come. Good relaxation goes hand in hand with a slow and even breathing curve. Distractions and irregular breathing affect an irregular curve.
5. After completion of the ten-minute baseline, you will first be shown a survey. Answer the questions and take notes if necessary. You will then see two pie charts. One shows you the number of breaths per minute and the other the coherence between breathing and breathing target. Since you have not yet used the breathing target, this pie chart is unimportant. However, look at the chart of breaths per minute and note the proportion of breaths that occurs most frequently. You're probably still breathing orange and red, which is perfectly normal. A training goal in respiratory biofeedback is to achieve a particularly slow breathing rhythm with increasing difficulty.

6. This is now your initial training status. Of course, the respective day also plays a role: It should make a difference whether you measure after a stressful working day (or even during work) or at the end of a relaxed weekend. **Use the corresponding function of the app to export this baseline as a CSV file. You can do this by calling up the measurement in the archive. With this, you can later (besides the archive) also access your baseline in other ways (e.g. in Excel). You can also export a PDF file of curves and statistics from the archive.**
7. One more hint: If the measured values are disturbed for no apparent reason, the sensor was not positioned optimally. Check the breathing curve in another measurement and again find the optimum setting for the stretch belt. Repeat the baseline measurement.



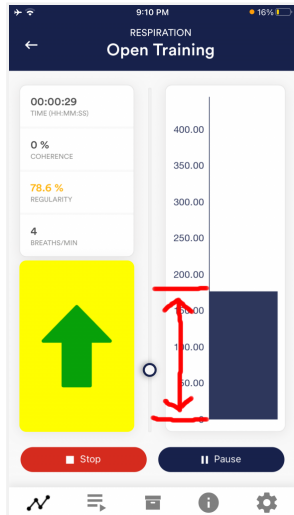
Example of a measurement curve of a 10-minute baseline



Display of pie diagrams after 10min Baseline

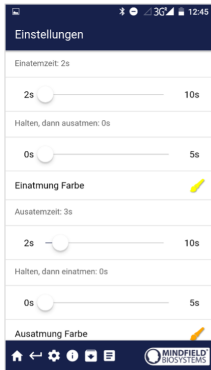
Second training phase (targeted biofeedback training based on the measured values)

1. The second training phase consists of several measurements, which should always be carried out according to the scheme described below. You should practice targeted relaxation with the help of feedback.
2. Start the measurement and observe your breathing curve for a while. The goal now is to achieve an even, slow breathing curve. In the main screen of the app in portrait format, you can see the breathing in the form of a bar. With every breath the bar goes up and down. In landscape format, you can see your breathing curve in the oscilloscope. If necessary, adjust the zoom control so that breathing is clearly visible.



Breathing as a curve and in bar form

3. Now try to achieve a state of passive observation and allowing breathing through targeted relaxation and calm, even breathing. You can test different feedback variants of the app and test relaxation techniques. At first you can also consciously control your breathing (deep inhalation and exhalation). The device gives you precise information about the resulting respiration. At a later stage, our prefabricated breathing exercise is also discussed in the procedures of the app.
4. Practice even breathing, including breathing aid if desired. You can configure the breathing aid in the app settings. Start breathing training at your usual breathing rate. This will in most cases be between 12 and 15 breaths per minute. This is faster than quiet breathing during deep relaxation. However, it is easier to start with your "normal" breathing first and then gradually slow down your breathing pace to below ten breaths per minute. Set the inhalation and exhalation times in the breathing target as desired. (For 15 breaths, set 2 seconds for inhalation time and 2 seconds for exhalation time, or 3 seconds for inhalation and exhalation time if you want to achieve ten quiet breaths per minute). It's soothing to exhale a little longer than to inhale.
5. Here is a possible example of a first exercise at 12 breaths per minute:



2 seconds for inhalation and 3 seconds for exhalation (5 seconds per breath/12 breaths per minute)

You can also set a hold time between inhalation and exhalation breaths. However, we recommend setting this to 0 at the beginning (i.e., no holding time) and experimenting with the holding time only during advanced training.

6. Train using the various biofeedback features the app offers. In landscape format, you also have the breathing aid as a line. You have a freely selectable video, which changes with breathing. In the settings, you can choose from various options for video feedback. Use music and sounds that you can activate in the settings. The individual feedback functions are all described in more detail in the corresponding chapter of the app.
7. **Use the supplied procedures!** This allows you to get to know the different functions of the app even better and to perform a standardized training. If you like, create your own individual procedure with your favorite feedback variants.

Third Training Phase (provocation, relaxation, and stress management)

1. In the third training phase, stress stimuli are used even more specifically to train stress management. Breathing biofeedback is well suited for the use of targeted provocation methods, as it shows a timely and sensitive reaction to a stimulus, and since this reaction is also proportional to the strength and significance of the stimulus.
2. Start the measurement and observe your breathing curve for a while. Then try to relax. The training begins with a resting phase of a few minutes.
3. Now a stressor (stress stimulus) should be used specifically. Examples are negative thoughts, looking at emotionally occupied pictures or objects as well as unpleasant noises. As a rule, everyone knows things that put them in tension and excitement. For example, if you do not like to speak in front of large crowds, try to make a speech spontaneously or imagine this situation. If such a stressor acts on you, observe the breathing curve, and you will probably notice a more irregular, flatter curve. Then try to increase the amplitude again and make the curve even again.
4. During a training session, you can alternate phases of relaxation and stressors about three to four times. Always end a session with a rest phase and do not overtax yourself. Do several training sessions over a longer period until you feel you are less sensitive to stressors or recovering more quickly. The aim is to simulate everyday situations with stressors and to counter them with targeted resting breathing and to find the breathing that will help you to relax the quickest through feedback.

Fourth Training Phase (transfer, and relaxation without feedback)

1. Now it should be checked whether you have achieved a training success and whether an improved ability to relax is already achieved without feedback. To do this, carry out another ten-minute baseline measurement and try to relax as much as possible.
DO NOT observe the measured values. Only consider afterwards how this measurement behaves in comparison to the baseline from the first training phase. In the archive, it is possible to compare sessions with each other. It is to be expected that various values have improved. Of course, your daily form also plays an important role here. Repeat the baseline measurement later if necessary. It is very important to always compare measurements of the same length, so use the option in the settings to set the session length to a fixed duration so you do not have to stop at the right time.
2. As another transfer exercise, you can work with a stressor again and then try to relax while NOT observing the measured values. Check afterwards whether you have succeeded in improving your measured values. If you succeed in this and the comparison with the first baseline also shows a clear improvement, you have completed a successful stress reduction training. If you now find yourself in a stress situation in everyday life, think of your training sessions. Stay relaxed by using the skills learned here. The same applies here: Regular practice makes perfect!
3. The question also arises: Have you been able to breathe slower and deeper than at the beginning? Did you get a better feeling for breathing? Do you encounter stress more often with deep abdominal breathing? Has your breathing pattern improved? These are the objectives that are usually to be achieved.
4. Our eSense App offers free training as well as the use of procedures. These are ready-made training programs which you can individualize according to your wishes. For an optimal comparability of training sessions, they should always be carried out under identical conditions (e.g., same time of day) and with identical length. The procedures are a great help. You can read more about this in the corresponding section of this manual.

14. Extending the cord of the eSense

If you wish to use a longer cord between the eSense and your smartphone or tablet, you can extend the original cord of the eSense with a common, 4-pin, 3.5mm jack headset extension cord. We have tested three cords that have worked well:

2m cord: <https://amzn.to/2kil5bj>

0,5m cord: <https://amzn.to/2kEB8xo>

110cm cord: <https://amzn.to/2k7TBm8>

All three suggested cords cost between £6-8 and are available from Amazon. Alternatively, you should be able to use other 4-pin cords as well.

15. Smart Bulbs (optional)



Smarte Glühbirne in Verwendung mit dem eSense Skin Response

The eSense app can support biofeedback via smart bulbs. Smart bulbs can change their colors and brightness and can be controlled via Bluetooth. In combination with the eSense app, smart bulbs indicate your level of stress or relaxation through their lights.

Currently, the eSense app supports the Magic Blue and Phillips Hue smart bulbs. Both are smart bulbs which can be controlled via Bluetooth. The color as well as the brightness can be adjusted. From within the eSense App, you can connect to the Magic Blue or the Phillips Hue and use it in your biofeedback session. Here you connect to the Hue Bridge from the eSense app and select the desired lamps.

Magic Blue

You can buy the Magic Bulb at our shop at <https://mindfield-shop.com/en/product/magic-blue-v2/>.

You can also find more information about Magic Blue in our article.

Philips Hue

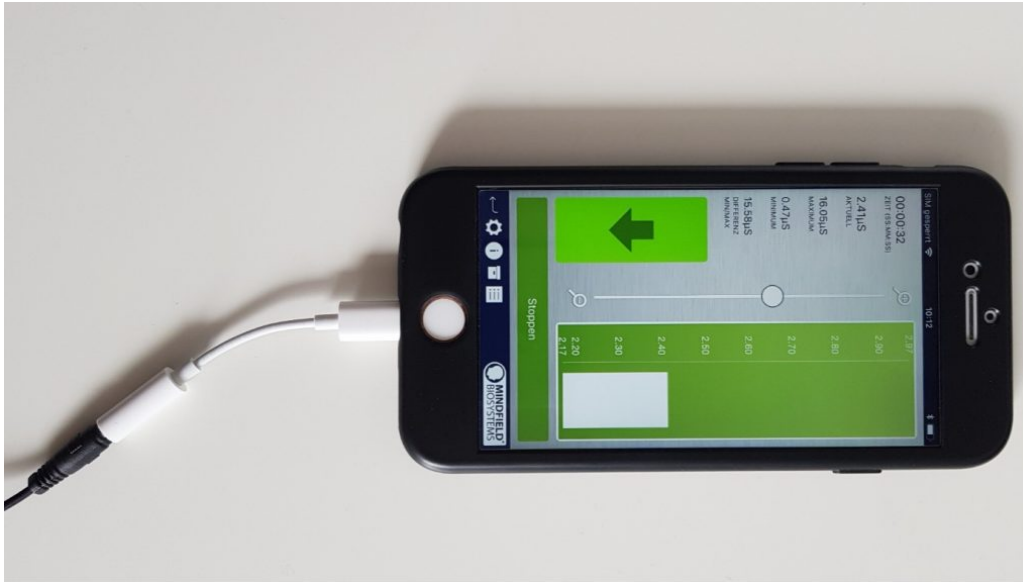
You should be able to find the Phillips Hue in every well-sorted electronic store. You can also order it online. A list of the on- and offline-merchants can be also found on the page of the Phillips Hue: <https://www.philips-hue.com/en-us>

We suggest you use one of the starter kits from Phillips, with the eSense. This also contains a colored bulb ('Color Ambience'): <https://amzn.to/3uzSFx8>.

You can also find more information about Philips Hue in our article.

16. Adapter for Apple devices

Some newer iOS devices without the classic 3.5mm headphone jack and with the newer Lightning / USB-C connector also work perfectly with the eSense. You either need an original **Apple USB-C** (<https://amzn.to/2OQYssu>) or **original Apple Lightning** (<https://amzn.to/2SJvg37>) to 3.5 mm connection adapter (not included in the scope of delivery of the eSense). Alternatively, you also can use any other adapter with a DAC chip. We recommend this adapter on Amazon: <https://amzn.to/2SnAUA1>



Lightning to 3.5 mm Headphone Jack Adapter (which no longer has a 3.5mm headphone jack, e.g. the iPhone X.)

17. Functions of the Mindfield eSense App



The eSense comes with the eSense app which you can load for free in the Google Play Store (Android) or Apple App Store (iOS).

It offers a wealth of features for effective biofeedback training in a modern design. Essential functions are: the display of measured values as a bar graph, an oscilloscope, feedback via video, music, sound, vibration, and smart bulbs (Magic Blue and Philips Hue). You receive a comprehensive evaluation after each measurement and can compare measurements with each other in the archive and export them as CSV files.

The app is available in English, German, Spanish, French, Italian, Portuguese, Ukrainian, Russian, Turkish, Dutch, Japanese and Chinese. The language is chosen automatically according to the set language of the smartphone or tablet.

Download Links



iOS: <https://itunes.apple.com/us/app/mindfield-esense/id1141032160?mt=8>

Android: <https://play.google.com/store/apps/details?id=com.mindfield.boisystem.esense>

18. General notes

- If the text on your Android device is sometimes cut off the reason can be a larger font in the system settings (especially for Huawei). In the Android settings, there is usually a way to adjust the font size and display size. It's best to set this to "standard" or "default", otherwise it can cause problems with app.
- For data files which you can load as own media into the eSense App, the general limitations by Android and iOS apply. We have successfully tested the following:
 - Images: PNG and JPG (GIF can be loaded but isn't animated)

In following the app is described in full details.

19. General view & Open Training

Portrait



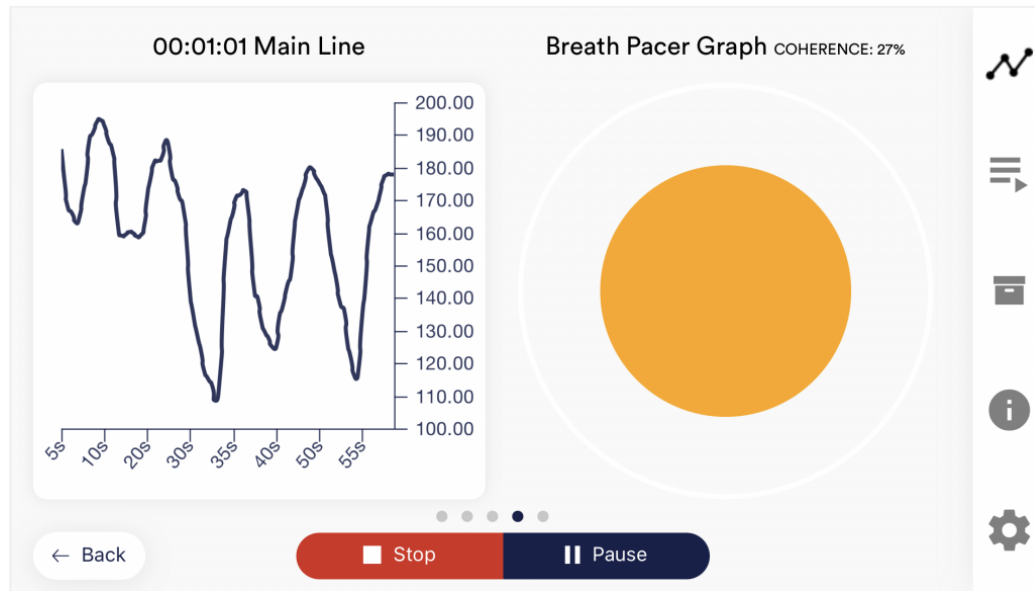
1. Measurement duration
2. Breathing aid coherence
3. Evenness of respiration in %
4. Breaths per minute
5. Display whether the value is rising or falling
6. Breathing scale
7. Zoom for breath scale
8. Current elongation of the belt
9. Starting, stopping and pausing a recording
10. Open Training
11. Procedures
12. Archive
13. Help
14. Settings

Landscape



1. Currently calculated RA (Respiration Amplitude = how deep you breathe)
2. Wipe the screen to the left or right to switch between this main view and the other views. After the measurement, you can also switch to the pie charts.
3. Set marker

20. Breath Pacer

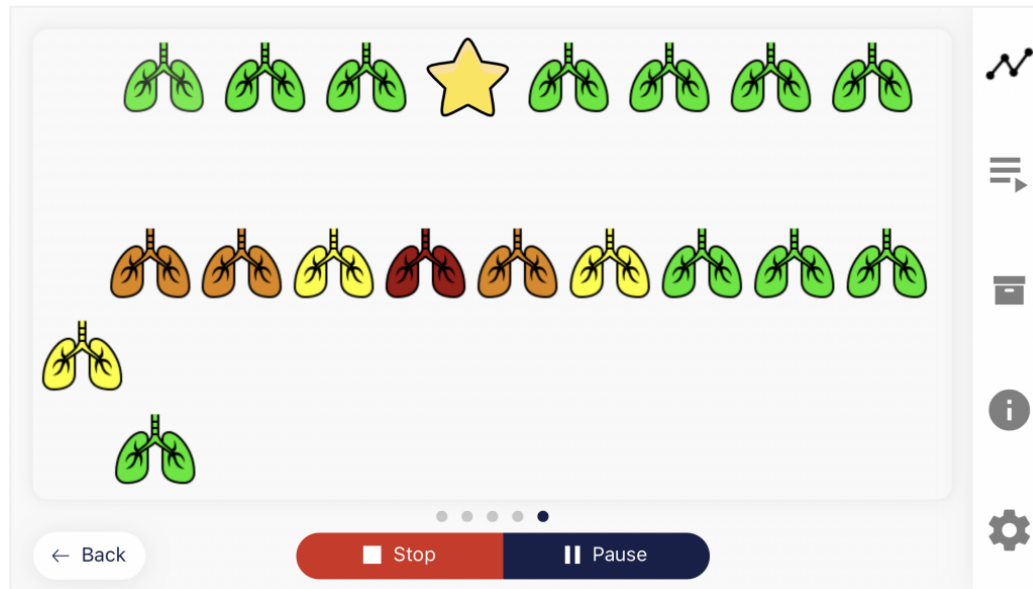


Breathing aid as a ball

Breathe as the sphere expands. The ball will grow and shrink. The coherence (here 27%) shows you how much your breathing follows the target. The higher the value, the better. 100% cannot be achieved.

As soon as you are **above 50%**, your breathing will follow the preset. Try to reach as high a value as possible and experiment with different breathing times (inhalation time, exhalation time, holding time).

21. Biofeedback Snake



Biofeedback Snake for the Respiration

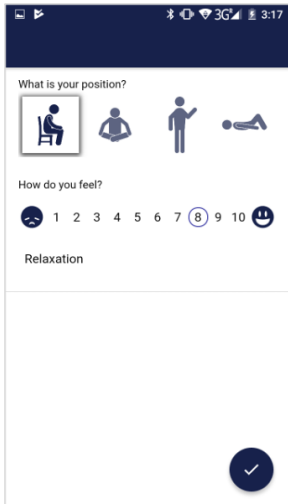
You can also display the Biofeedback snake as an additional option. At the top left are appearing symbols which vary in color depending on the current measured value.

- The symbols are either green (further positive direction),
- yellow (slight negative direction),
- orange (strong negative direction) or
- red (very strong negative direction)

After 10 green symbols you will also be rewarded with a star and after 50 green symbols even with a shooting star. If the snake goes over the entire screen you will see the last 5 minutes.

22. Survey (optional)

If you have activated this option in the general settings, a small survey will appear immediately after each measurement. This gives you the opportunity to archive long-term reproducible measurements or to document a change in your measurements (for example, if you start using the eSense while lying instead of sitting).



Your position during measurement

Choose between sitting, the "tailor's seat" or yoga seat, standing or lying down.

How do you feel?

Here you can indicate your state of mind after the session. This gives you the opportunity to record your mood together with the measurement results over the long term.

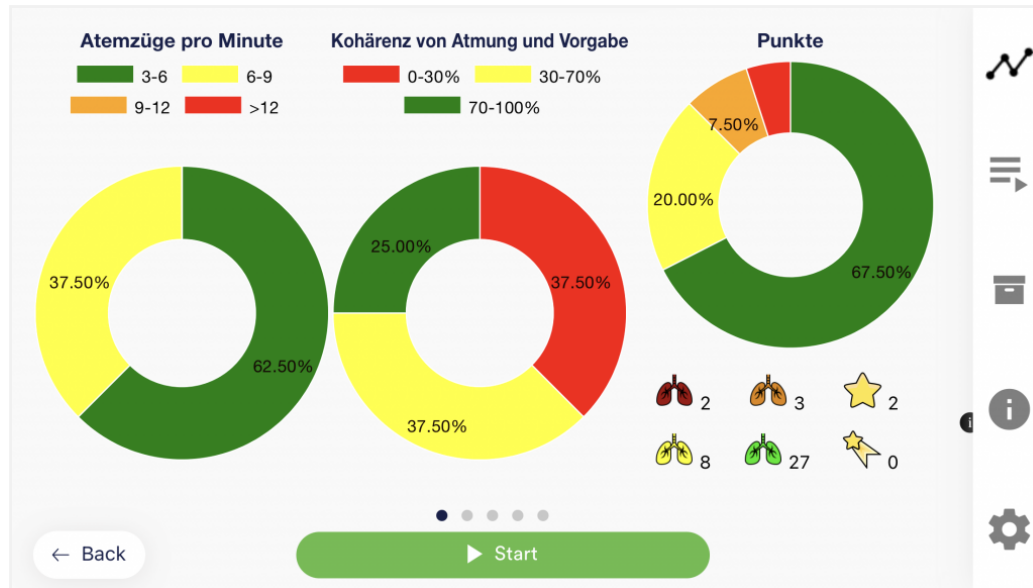
Note function, optional

Here you can add a note to the measurement in the free text field. We recommend that you write down any special circumstances so that you can still classify measurements with a lot of stress or relaxation later.

23. Pie Chart (after the measurement)

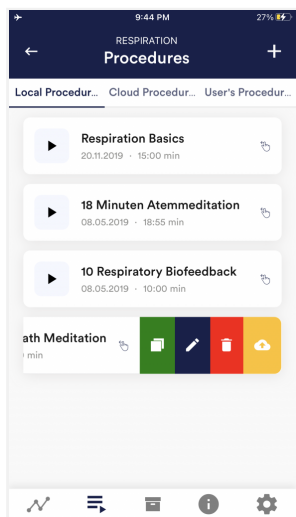
After the measurement (and optional questioning), in landscape format, a screen appears with two pie charts: the breaths per minute and the coherence of breathing and breathing target, each over the entire session in %.

At this point you can also wipe the screen to the left or right to switch between the pie charts and the graphs of the measurement.



Pie chart and values after a measurement

24. Procedure Overview



Edit or delete procedure

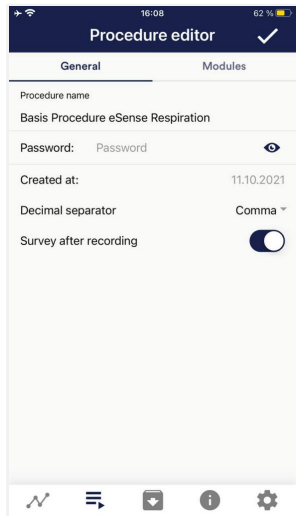
To edit a procedure, simply swipe it to the left in the overview.

You can then tap the blue pen-symbol to edit the module.

If you want to copy the procedure, tap on the green copy-symbol.

By touching the red trash symbol, you can delete the module.

25. Procedure editor



Procedure name

Here you can name your procedure with a suitable name (in this example, it is simply "test").

Password (optional)

If you wish, you can protect your procedure with a password.

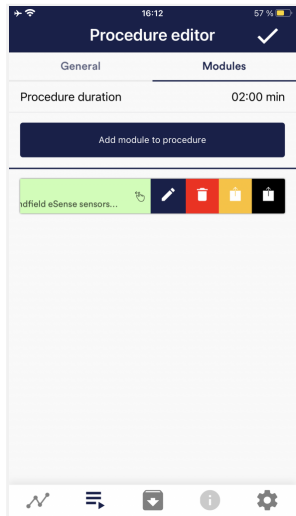
Decimal separator

Here you can activate/deactivate the survey (position, mood, notes) after each measurement.

Survey after recording

Here you can activate/deactivate the survey (position, mood, notes) after each measurement.

26. Add new module



In the procedure editor, select the "Modules" tab.

Add module to procedure

Click on this button to add another module.

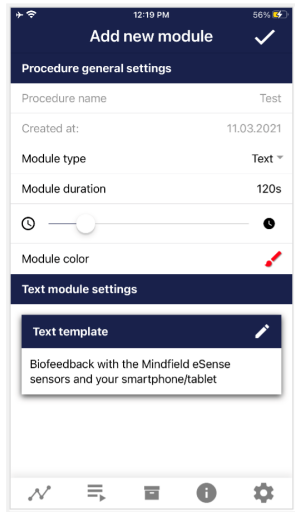
Edit module

Slide the module to the left and tap on the blue pencil symbol to edit.

To delete a module, tap the red trash can icon.

To duplicate a module within the procedure, click on the yellow sharing symbol.

To duplicate a module to another procedure, click on the black sharing icon and select the procedure from the following popup.



Add new module ✓


Procedure general settings

Procedure name: Test

Created at: 11.03.2021

Module type: Text






Module duration: 120s

Module color: 

Text module settings

Text template ✎

Biofeedback with the Mindfield eSense sensors and your smartphone/tablet

Bottom navigation bar:     

Module Type

You can choose between a text, a fixation cross, an image, a video, an audio file, an arrow, a bar graph, a smart bulb, an oscilloscope, a breath pacer or the biofeedback snake.

Module duration

Set how long the module shall last. To do this, simply move the slider to the left or right.

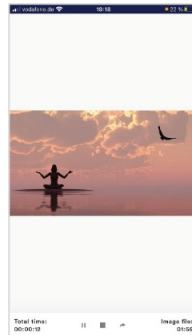
module color

Determine the color of the module in the procedure editor.

27. Overview of the modules



Text module This module shows a text which you can edit.



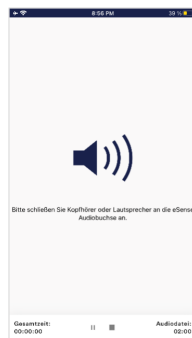
Picture module The picture module shows either a standard picture from the app or a picture from your gallery.



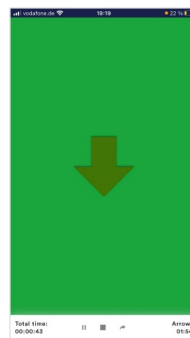
Video module In the video module, you can choose either the standard video from the app or use your own video.



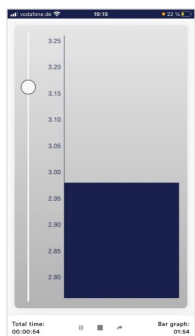
Fixation cross module The cross changes its color depending on the conductance and provides direct biofeedback.



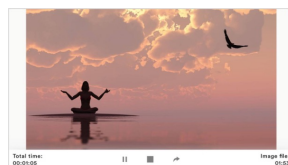
Audio module The audio module is playing a relaxing song. You can choose your own music.



Arrow module The arrow changes depending on relaxation and gives you direct biofeedback.



Bar graph module The bar graph shows you your current value and gives you direct biofeedback.

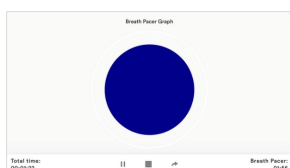


Picture module in landscape format The procedures can be displayed also in landscape format.



Breath Pacer module in landscape format

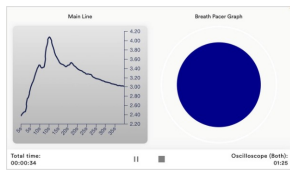
The bar indicates the breathing rhythm. When the bar goes up, inhale. As the bar goes down, exhale. You can also set holding phases between inhaling and exhaling.



Oscilloscope Type Breath curve (Sphere)

The circle leads the breathing rhythm. When he expands, inhale. When the blue circle contracts, breathe out. You can also set

holding phases between inhaling and exhaling.



Oscilloscope Type Both

This is a combination of the graph to the left and the breathing aid to the right \. You can see the measured values while following the breathing aid.



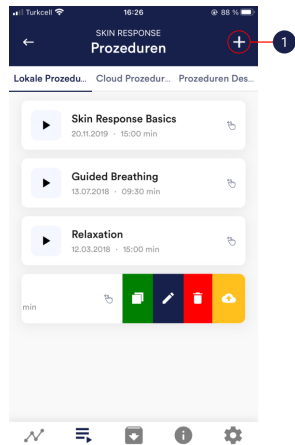
Biofeedback Snake The Biofeedback Snake is also available as module.



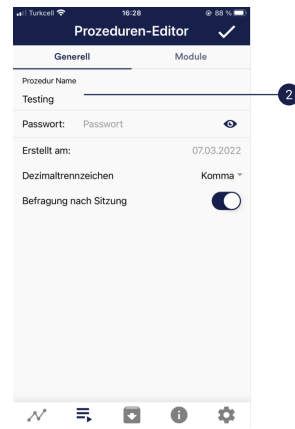
Procedure in the archive

The colored background represents the SRC per minute (green = relaxed state / little SCR, yellow = excited state / medium SCR)

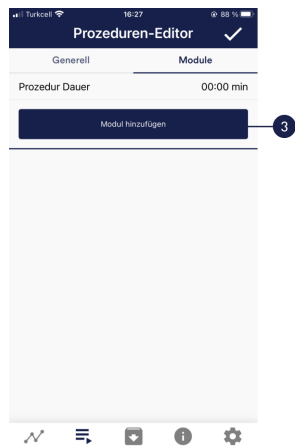
28. Creation of a procedure



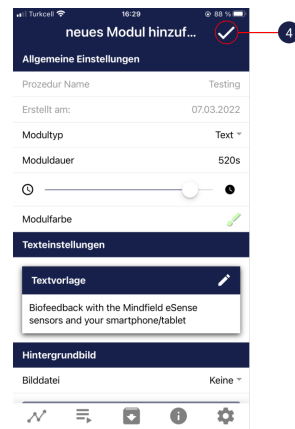
1. Tap on the plus icon to create a new procedure.



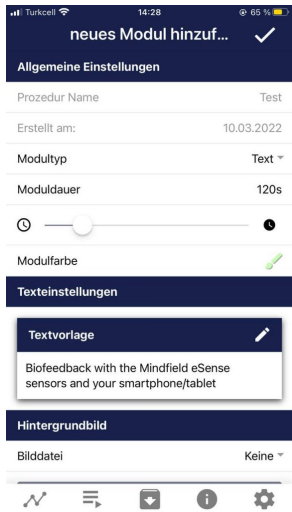
2. Give the procedure a name (here "Example Procedure"). You can simply accept all other default settings for this example.



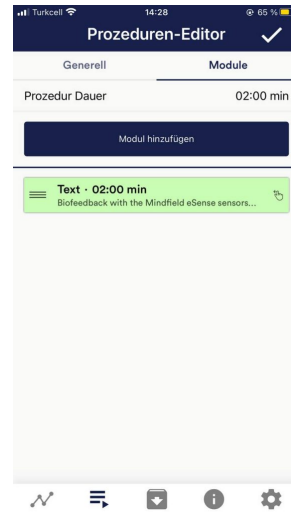
3. Select the upper tab "Module" and tap on the button "Add module".



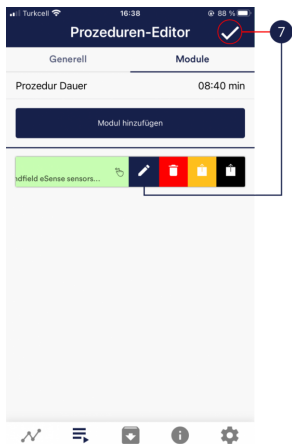
4. Select a bar graph module and tap the check mark. Here, too, you can accept the default settings.



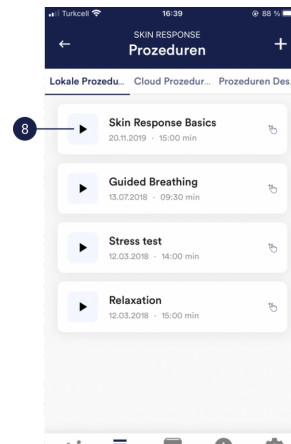
5. Then add an Oscilloscope and breath pacer module Here, too, you can accept the default settings.



6. Your procedure should now look like this.



7. If you want to change something at a later date on one of the modules, you can swipe the corresponding module to the left and tap on the blue pencil symbol. Otherwise you can now tap the tick at the top right.



8. Start the procedure by tapping the play button. Have fun!

29. Meditations

You can also choose one of our guided meditations as a procedure. The breathing meditation is already included in the eSense app.

We will also offer more meditations shortly as new free cloud procedures for users with account. The meditations thus offer you an easy way to train your awareness and attention and, at the same time, receive biofeedback.

30. Own media (photos, videos and audios)

You can use your own pictures in the picture module, your own videos in the video module or your own music or melodies in the audio module in the procedures.

Android usually enables this without any further problems. As long as you allow the eSense app to access your files on your device, you can upload them to the eSense app.

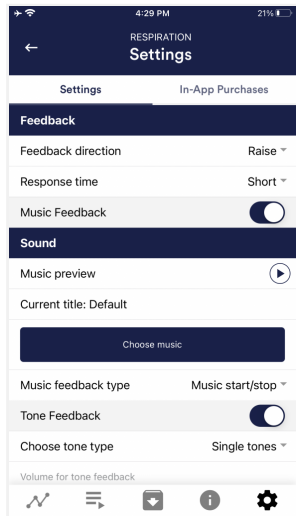
iOS is a bit more restrictive. As usual, you can use your pictures from your device in the iCloud for pictures and videos.

For audio files you need iTunes (or an alternative such as "CopyTrans Manager"). This is where your music or melody must be. You can find your music in iTunes (or CopyTrans Manager) under the tab "My Sound" and insert it into your procedures.

We have a detailed video at https://www.youtube.com/watch?v=A_CRbmBeBBc where we show all the steps.

On **iOS** the **power saving mode** must also be deactivated, otherwise the videos in the procedures cannot be played.

31. General settings



Feedback direction

Select the direction in which you want the feedback to react to. It can respond either to an increase or decrease in the measured values. The values increase when inhaled and decrease when exhaled. So, choose which breathing phase you prefer to occupy with positive feedback.

Reaction time

Set how sensitive the feedback should be to fluctuations. The default setting is "Short", which allows feedback to respond quickly to changes in readings. For longer measurements we recommend "Medium" or "Long", then the reaction time will be slightly delayed and the eSense will no longer react to every small change of the measured values.

Music Feedback

If the value moves in the unwanted direction (e.g., lower values), the music will become quieter or change its speed depending on the type of feedback you choose.

Music preview

Tap the Play button to listen to the selected song.

Choose Music

You can use the default or your own music.

Music feedback type

You can optionally choose between music start/stop, volume feedback or playback rate feedback. Note: For iOS are the options restricted.

Tone Feedback

In the background, you can hear sounds from other apps.

Choose tone type

You can choose between single or continuous tones.

Auto Mode

When this is activated, the range in which the sound changes is automatically adjusted. The minimum and maximum values of the set time window are automatically used for the lower and upper limits of the following interval.

Value range from-to

(Not visible when auto mode is enabled)

You can set the area in which the feedback is active. We recommend selecting the range wide at the beginning and to set it smaller over time if necessary. Alternatively, you can use the automatic mode.

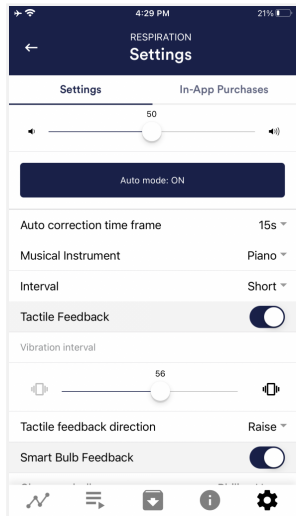
Auto correction time frame

(Only visible when auto mode is enabled)

You can specify the time window in which the automatic mode adjusts itself each time.

Musical instrument

You can choose from various preset instruments.



Interval

Set an interval for the tone feedback.

Tactile Feedback

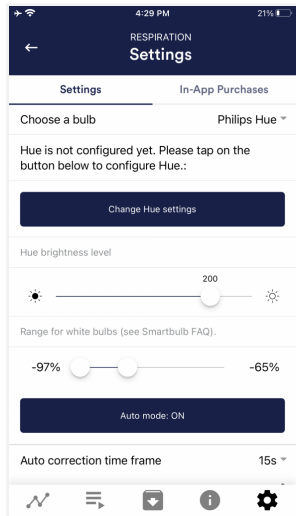
Your device will vibrate to provide feedback. Only smartphones support this feature, tablets do not have a vibration motor.

Tactile feedback direction

Decide whether decreasing ("Decrease") or increasing ("Increase") tactile feedback values should be considered a success.

Smart bulb feedback

The light bulb changes its color depending on the values.



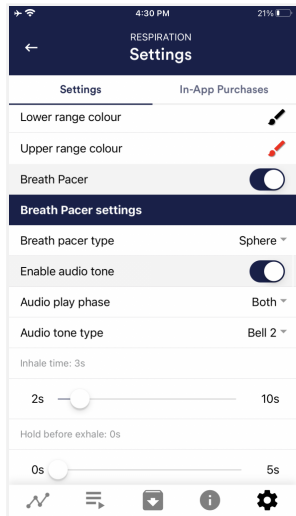
Choose a bulb

Choose between Magic Blue, Magic Blue V2 or Phillips Hue. **Connection test**

With this option, the bulb changes color if the connection is successful.

Connection test

With this option, the Magic Blue changes color if the connection is successful.



Breath Pacer

If activated, a breathing aid is displayed during the measurement.

Breath pacer type

You can choose between line and sphere.

Enable audio tone

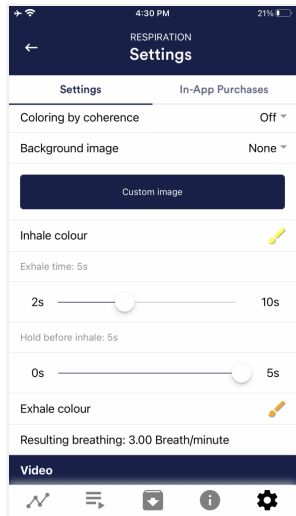
Tones can also be added as auditory breathing aids.

Inhale time / exhale time

Select the seconds for each inhalation breath and exhalation breath to display the breathing aid.

Hold before inhale / exhale

Select the seconds between inhalation and exhalation breaths.

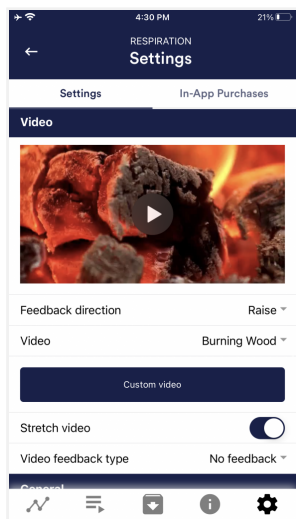


background image

You can choose a background image for the breathing aid.

Inhale color / exhale color

Select the color for each inhalation and exhalation stroke of the bar or ball.

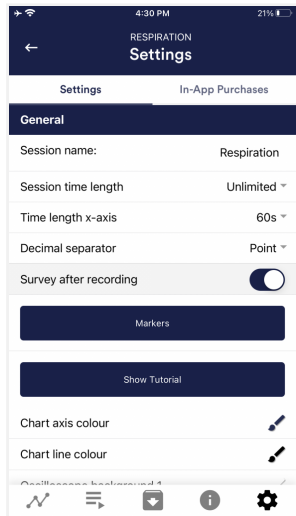


Video

Choice: In the dropdown menu, you can select from included videos and "Select your own video". You can select your own videos from your device.

Video Feedback Type

Effects can be applied to the video as feedback. Sie können zwischen Start/Stop, Schärfe, Helligkeit und Sättigung wählen. You can choose between Start/Stop, Sharpness, Brightness and Saturation. In addition, the automatic or manual mode for selecting the upper and lower limits is then available for sharpness, brightness, and saturation. In between is then interpolated. "No feedback" is also possible, then the video is simply played.



General:

Session name

Enter the name of your session which will be displayed in the archive here.

Session time length

You can automatically time-limit normal measurements. They stop automatically after the set time.

Time length X-Axis

You can set the time displayed on the X-axis of the oscilloscope. We recommend 90 seconds.

Decimal separator

You can choose between comma or dot.

Survey after recording

Here you can activate/deactivate the survey (position, electrode type, mood, notes) after each measurement.

Markers

You can define markers by tapping the button. These are the markers you can set during a measurement. (See also 'Set Marker' in Landscape mode of the general view above).

Show tutorial

You can watch the tutorial again at any time from the first start of the app.

Chart settings

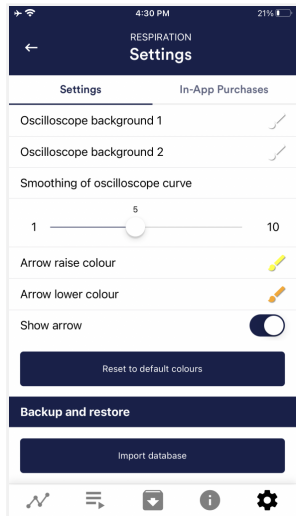
You can change the colors of the graph and the oscilloscope in the general view.

Chart axis color

You can change the color of the chart axis in the main view.

Chart line color

You can change the color of the chart line in the main view.



Oscilloscope background 1&2

You can change the background color of the oscilloscope in the main view.

Smoothing of oscilloscope curve

You can adjust the smoothing of the curve in the oscilloscope between 1 (hardly) and 10 (very strong).

Reset to standard colors

You can restore the default colors for the graph at any time.

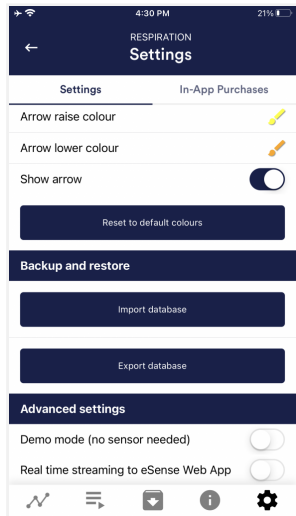
Arrow raise / lower color

You can also disable the arrow in the main view. **Show arrow**

You can also disable the arrow in the main view.

Backup & Restore

You can export and import your procedures and measurements. More about this in our [FAQ](#)



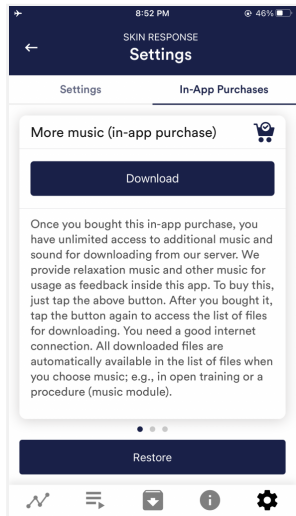
Demo Mode

A saved measurement is played back automatically. A real sensor is not needed.

Real time streaming to eSense Web App

This allows you to stream the data live to the eSense Web App. More information in the Account and Cloud section.

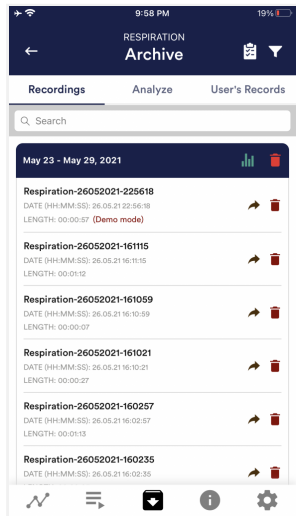
32. In App Purchases



In-App Purchases

Additional to the option to use your own music or videos in the eSense App you can also purchase additional music or videos. We regularly extend the offer.

33. Archive (overview)



The app also contains an archive, in which you can save your measurements and export them as well. You can watch those in detail again, compare them to each other and export them individual or all together (as ZIP file).

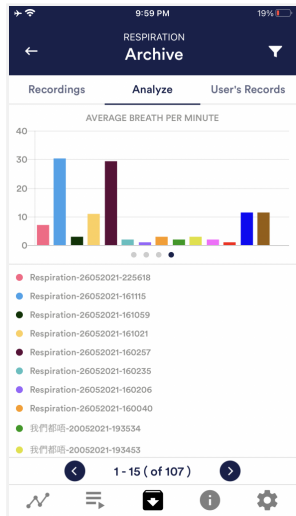
Recordings

Here you can see your measurements listed. You can view a single measurement by tapping on it.

If you click on the clipboard symbol at the top right, you can mark one, several or all measurements. You can then export, analyze or delete the exported measurement (s).

On the filter symbol you can choose whether you want to sort the measurements by name, date, length in ascending or descending order.

If you want to delete a single measurement from this list, you can also tap on the trash can symbol to the right of the measurement.



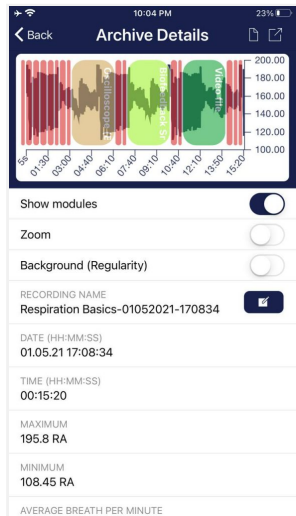
Analyze

Here all measurements are listed according to the following factors:

Time, Average Session RA, Breath depth RA, Average breath per minute.

With this, you can recognize trends over time and over several measurements (if, for example, your % of SCR of Session decreases by regular training, you can see this here immediately).

34. Archive (single view)



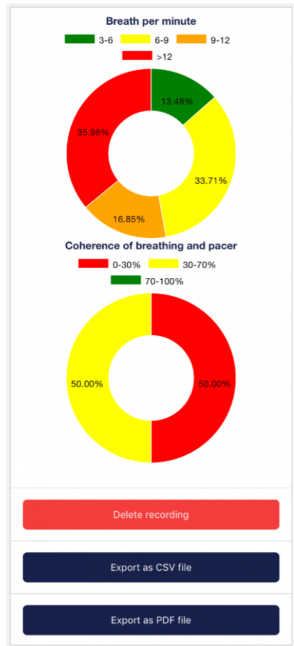
Export data

If you click on the export symbol on the top right, you can export the measurements as a .csv-file with all common apps (for instance, send over the Messenger, WhatsApp, email, etc.) or simply save them on your device or in your cloud.

The data are exported as a.csv-file (comma separated values). This format can be opened with Microsoft Excel or Open Office Calc (for free).

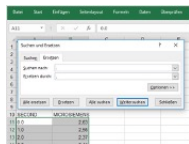
If you like to work with Google, Google Sheets can be an alternative to Excel for you. You can open your exported .csv-files, visualize and access them via the cloud easily from several devices. Google Sheets has almost the same functions and interface as Excel.

Note: We have also summarized more **detailed information on CSV export and processing your data in an extra article on streaming and analyzing eSense data.**



Breath per minute and Coherence of breathing

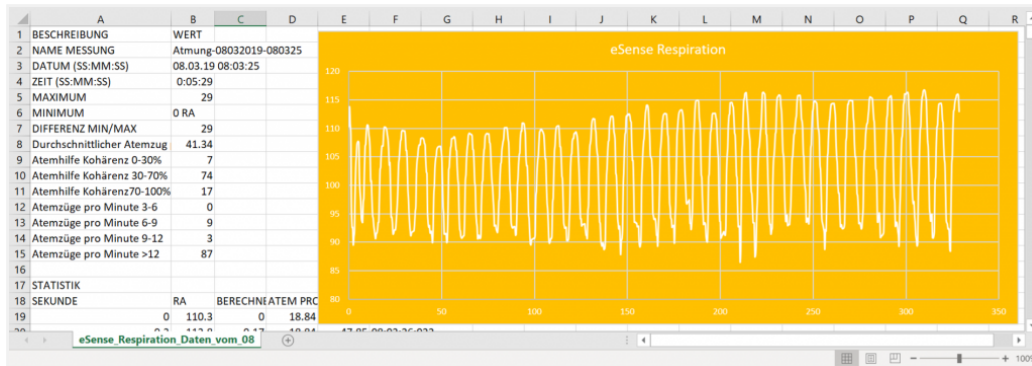
You can see here also the Breath per minute and the coherence of breathing of the your measurement. This pie chart is the same as the one you see after the measurement. You can get more information about the regularity in the chapter 'Explanation of the individual measured values' in this manual.



In Excel™ or Google Sheets™

Notice: If you open the .csv-file with Excel™ (or Google Sheets™) and your values make no sense, then there is usually a different set language in the eSense App and Excel™ and Sheets™.

Note: We have also summarized more **detailed information on CSV export and processing your data in an extra article on streaming and analyzing eSense data.**

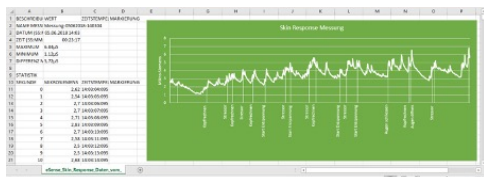


Exported data in Excel

35. Marker feature

You can also set markers while you make measurements. For example, if you have a regular biofeedback exercise which involves breathing calmly at a specific point, you can set a marker in that moment when you breathe calmly. Later in the exported data, you can see the moment where you had breathed calmly. The marker feature comes in handy when you are making longer measurements with several actions.

The markers can be displayed well in Excel:



Exported measurement in Excel with markers

36. Compatible Android and iOS devices

General

Note for all eSense:

We recommend using a tablet instead of a smartphone due to better display.

If you don't have a device yet and/or want to buy an extra device for the eSense, we recommend depending on your taste either

- a Nokia G10 (<https://amzn.to/3dg9Qx5>), a Nokia G21 (<https://amzn.to/3Qso3Fv>), a Motorola Moto E40 (<https://amzn.to/3bBl0fg>) or a Xiaomi Redmi 10 (<https://amzn.to/3A5wxgy>) if you prefer **Android**

or

- a refurbished iPad in good condition (from bsw. <https://www.refurbed.de/c/ipads/> or <https://www.rebuy.de/kaufen/apple-tablets>) if you prefer **iOS**.

In our experience, these options offer enough power for the eSense app, will remain upgradeable to upcoming Android and iOS versions for some time and are still reasonably priced. The Android devices also still have a normal 3.5mm jack input and do not require an adapter for the eSense.

iOS devices compatible with the eSense

- **All iOS devices from version 12.5 or higher, which are (in part):**
- Apple® iPhone® 5S, iPhone® 6 / 6S, iPhone® SE / SE 2, iPhone® 7/7 +, iPhone® 8/8 +, iPhone® X, iPhone® XR, iPhone® XS, iPhone® 11/11 Pro, iPhone® 12/12 Pro
- Apple® iPad® from 5th generation (iPad Air) or newer, including all iPad Mini from 2nd generation
- Apple® iPad® Pro from 1st generation or newer
- Apple® iPod Touch® from 6th generation or newer

Note:

Some newer iOS devices without the classic 3.5mm headphone jack and with the newer Lightning / USB-C connector also work perfectly with the eSense. You either need an original **Apple USB-C** (<https://amzn.to/2QQYssu>) or **originalen Apple Lightning** (<https://amzn.to/2SJvg37>) to 3.5 mm connection adapter (not included in the scope of delivery of the eSense). Alternatively, you also can use any other adapter with a DAC chip. We recommend this adapter on Amazon: <https://amzn.to/2SnAUA1>.

Additional note Siri:

Please note that Siri can NOT be activated while you do a measurement with the eSense app (this applies to all eSense sensors). Otherwise a running measurement can be disturbed and your values be wrong therefore. You have to deactivate Siri YOURSELF (our app can't do this due to the settings of Apple).

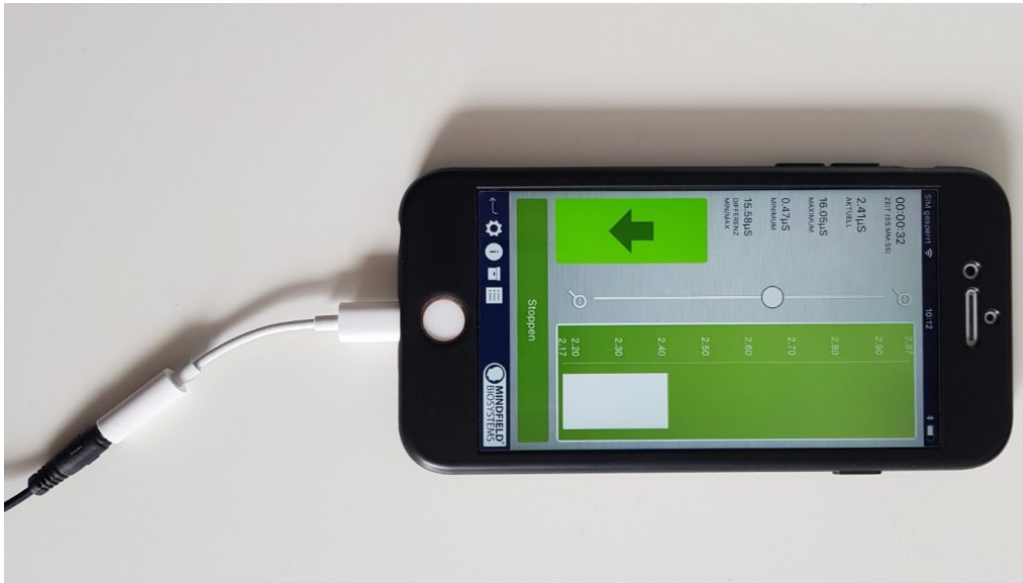
In order to deactivate Siri go Settings -> (> Siri and deactivate > (the exact steps can vary depending on the version of iOS).

Important notice on iOS devices and the eSense Pulse:

Your iOS device needs to support **Bluetooth 4.0 LE** (sometimes also referred to as **Bluetooth Low Energy** or **BLE**) which is supported from iOS 5. But we recommend the devices listed above.

Important notice on Android devices for the eSense Respiration, Skin Response and Temperature:

The eSense works via the **microphone input**. If you have iOS 7 or higher, you have to give the eSense app permission to use the microphone port, otherwise it will not work. You will be asked for permission asked during installation, so please answer the request by clicking "Yes" or "Allow". After installation, you can make this setting manually: Allow the eSense app to use the microphone port in the system settings of your iOS device: >Settings -> Privacy ->>Microphone



Lightning to 3.5 mm Headphone Jack Adapter which no longer has a 3.5mm headphone jack, e.g. the iPhone X.)

Android devices compatible with the eSense

- **All Android Smartphones and Tablets from Android 7.0 (Nougat)**
- If you plan on purchasing a device for using the eSense, we suggest Nokia G10 (<https://amzn.to/3dg9Qx5>), a Nokia G21 (<https://amzn.to/3Qso3Fv>), a Motorola Moto E40 (<https://amzn.to/3bBl0fg>) or a Xiaomi Redmi 10 (<https://amzn.to/3A5wxgv>) as an inexpensive entry-level device

Important notice on Android devices for the eSense Pulse:

Your Android device needs to support **Bluetooth 4.0 LE** (sometimes also referred to as **Bluetooth Low Energy** or **BLE**) which is supported from Android version 4.3 (Mid 2013). But we recommend Android 4.4 and higher anyway. So generally, the eSense Pulse works fine with most current Android devices.

Important note about Android devices for the eSense Muscle:

You cannot use the app from the Google Play Store for the eSense Muscle. We have made a version of our eSense mobile app customized for the Muscle available for you to download as an APK. This is otherwise identical to the eSense app from the Google Play Store. [You can find more information and download the APK here.](#)

Important notice on Android devices for the eSense Respiration, Skin Response and Temperature:

Your Android device needs a **3.5 mm input for external microphones/headsets**. Most devices have this input, often included in the headphone jack. If no 3.5 mm input for external microphones is present, such as with the Google Nexus 7, you cannot use the eSense! (All iOS devices specified above have this input).

Alternatively, you also can use any other adapter with a DAC chip. We recommend this adapter on Amazon: <https://amzn.to/2SnAUA1>.

Here are **some Android devices** we **tested** and can confirm that they **work well** with the **eSense Pulse, Respiration, Skin Response and Temperature** (Whitelist). (This list is only a very small sample and most available Android devices worldwide work fine with the eSense).

- Google Pixel 2 (Smartphone)

- Huawei P10 (Smartphone)
- Huawei Honor 9 Lite (Smartphone)
- Motorola Moto E40 (<https://amzn.to/3bBI0fg>) (Smartphone, our recommendation)
- Nokia G10 (<https://amzn.to/3dg9Qx5>) (Smartphone, our recommendation)
- Nokia G21 (<https://amzn.to/3Qso3Fv>) (Smartphone, our recommendation)
- Nokia 3 (Smartphone)
- Nokia 5 (Smartphone)
- Samsung Galaxy S7 (Smartphone)
- Samsung Galaxy S8 und S8+ (Smartphone)
- Samsung Galaxy Tab S2 (Tablet)
- Samsung Galaxy Tab A 2018, 10.1" (Tablet)
- TECLAST P80X (Tablet)
- Xiaomi Redmi 10 (<https://amzn.to/3A5wxgy>) (Smartphone, our recommendation)

The following Android devices will NOT work with the eSense Respiration, Skin Response and Temperature (Blacklist). There may be a few other devices not on this list which will not work. When in doubt, please check the Microphone jack as described above!

- All tablets from Lenovo (For the eSense Skin Response, Temperature and Respiration. The microphone input distorts signal of the eSense. With the eSense Pulse they work)
- Google Nexus 7 (for the eSense Skin Response, Temperature and Respiration as no microphone input is built in. With the eSense Pulse it works)
- Amazon Fire 8 HD (before model 2018 with model no.: KFKAWI, no signal)
- Huawei Honor 6A (strange "breakdowns" in signal during the session, unique behavior of this device, never seen before, maybe the test device is defective?)

37. eSense Web App

In addition to the app, we have also developed an eSense web app that mirrors and supplements the app. You can use this with the account and plans mentioned above.

You can analyze your recorded data (with the basic plan) or even transfer your data to a PC in real time (live streaming with the premium plan).

The main advantage of this is that you can see the graph even better with a large screen and enlarge individual areas and have more advanced analyze features.



eSense Web App with a live measurement with the eSense Pulse

With the eSense Web App, you can also view measurements from several and different eSense simultaneously and in real time, which allows a professional trainer client to design the workflow.

You can find the web app at <https://esense.live>. There you can login with the same account (username and password) as for the eSense app. For more information on the eSense Web App and its capabilities, see also our article on [streaming eSense data](#).

The eSense App is working for the eSense Skin Response, Temperature, Pulse and Respiration. It's not supporting the eSense Muscle.

38. Account and Cloud

You can register your own, free account for the eSense app and book plans. You can also benefit from free, regularly added procedures without booking a plan. Thus, we recommend using the app with an account. With the plans you can mainly use the cloud and its functions and get also access to the eSense web app at <https://esense.live>.

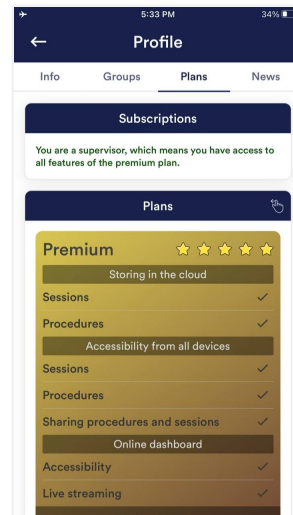
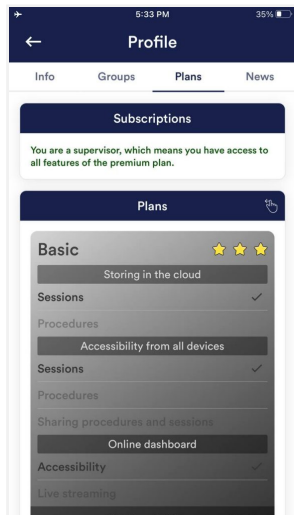
With the Basic plan, you can save your measurements locally and online in the cloud and thus access your measurements from all devices and from anywhere. You also get access to the eSense web app.

The Premium Plan includes all functions of the Basis Plan. In addition to your measurements, you can also save your custom procedures online in the cloud and thus access your procedures from all devices. (Attention: Technical limitations from Apple unfortunately do not allow the upload (and thus the synchronization) of audio files. The synchronization of picture and video files is possible, however).

You can also share your measurements with other users as Premium plan user. You also have the option to live stream your data to the eSense Web App in real time. To do this, activate "Real-time data transfer to eSense Web App" in the settings at the bottom.

These plans can be used, among other things, to design a trainer's client's workflow. You can find an overview of the account and the cloud in our **account comparison article**.

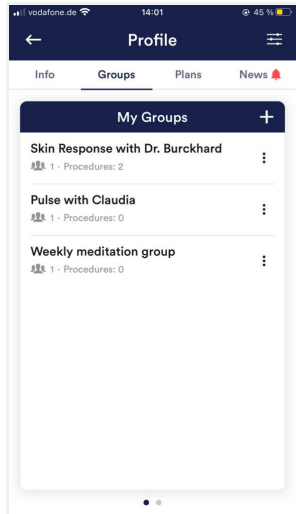
You can book the plans in our app in the profile tab:



Plans in profile tab

39. Groups

The accounts enable you to create your own groups or to join other groups. This allows you to share your recordings with your friends. Or you can work with a trainer as a client since you can share your recordings with the trainer.



Create a group

Tap on the plus symbol to create a group.

Edit a group

Tap on the 3 dots next to the group name. You can then (if authorized) view and remove the members of the group or add new members.

You can also change the title of the group or delete the group.

40. Privacy policy

The eSense App does not collect any personal data, such as name, gender, date of birth, etc.. Each recording of measurement data is done under a general prefix such as "measurement",

supplemented by with the eSense sensor used, the current date and time of the measurement. The recorded measurement data cannot therefore be assigned to any person.

The prefix of a recording, e.g. "measurement", can be changed by the user in the settings and used for the assignment to a person. Users can decide whether to change this prefix to their name, for example. Then each measurement and also each CSV file exported from it contains the name of the user in the file name.

Access rights within the eSense App

- Microphone input: Access to the microphone input is required to receive measurement data from the eSense sensor at all. This access is mandatory.
- Access to media library: Access to photos, music, and videos is only required if you want to use your own photos, music, and/or videos in the eSense App. The eSense app should be used as feedback. It is also possible to use only the by the app supplied media.
- Access to the location: The access to the location (activation of GPS) is only required for the Bluetooth connection to the Magic Blue bulb (optionally available) or the eSense Pulse. This is mandatory under Android and lies outside the possibilities of the publisher of the eSense App. No standard data is collected, the standard function is not used.
- Access to Bluetooth: If the eSense app is used with the Magic Blue smart bulb to provide biofeedback by modifying the color and brightness of the light bulb, it needs to be connected via Bluetooth within the app. To do this, the Bluetooth function is used. For the eSense Pulse Sensor, Bluetooth is also required as it transmits the data via Bluetooth.

Transmission of anonymous usage data and crash reports

In order to improve the technical stability of the eSense App and the detection of code errors, we use the Sentry service. Sentry serves these purposes alone and does not evaluate any data for advertising purposes. The transmission takes place anonymously and only with an existing internet connection.

Processed data

Usage data, metadata (device ID, device data, IP address).

Special protective measures: IP masking, immediate deletion.

External Functional Software Disclosure: Functional Software Inc., Sentry, 132 Hawthorne Street, San Francisco, California 94107, USA.

Privacy Policy: <https://sentry.io/privacy/>.

Processing in third countries: USA

Warranty for processing in third countries: Privacy Shield, <https://www.privacyshield.gov/participant?id=a2zt0000000TNDzAAO&status=Active>.

Deletion of the data: Information on the device or time of error is collected anonymously and is not used for personal purposes and then deleted.

Medical information

The Mindfield eSense sensors are not medical devices and may therefore only be used to reduce stress.

If you suffer from an illness, do not carry out any treatment on your own and always consult a therapist.

Warranty by the manufacturer The statutory warranty obligations apply to all our products. If you have any problems with our products, please contact us directly. See the "Contact" section of this manual.