



# **Orla Etämittäus**

# **Work-Related Asthma**

# **Patient Guide**

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**Orla DTx Oy**

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# 1. Privacy Policy

We process your data only in accordance to our agreements with the healthcare providers and as directed by the healthcare providers. We protect your data with appropriate security measures and store it until the healthcare provider instructs us to delete it.

Since we only process patient and professional user data on behalf of healthcare providers, you cannot directly exercise your data rights through us. Rather, you should contact your healthcare provider, who will then instruct us to take the necessary actions.

You can contact us in privacy and security related matters via email at [privacy@orladtx.com](mailto:privacy@orladtx.com). More information about our privacy policy is available from <https://orladtx.com/privacy/>.

## 2. About measuring

You now have the Vitalograph Lung Monitor BT (Figure 1a) or Medikro Duo (Figure 1b) measurement device at your disposal. It is used for measuring pulmonary functions. After each measurement, the Orla Etämittäus application automatically sends the values from the phone to a professional in order to provide information to the professional. Handle the device and the phone with care.

Make sure the phone battery is sufficiently charged, and always keep your phone turned on. Ensure the Bluetooth connection of your phone is on.

The device and the phone work together automatically. In order to take a measurement, you have to follow the instructions provided by the phone.

Take the measurements every two hours on a daily basis from morning to evening. Take the first measurement immediately after waking up. After this, the phone will remind you of the next measurement in two hours.

During each measurement, a minimum of three blows are let out. The device will monitor the quality of the measurements and notify you if the blow was not qualitatively sufficient or if the measured values differ too much from one another. In this case, the device will ask you to let out 1 to 2 extra blows. It is important to focus on each blow and to blow in exact accordance with the instruction.

At the beginning of the measurement, the phone application will ask questions about, for example, the reason for the measurement (included in the program or asthma attack), whether it is a workday or the weekend, your location, and the prevailing conditions. At the end, the phone application will ask if the measurement was the last measurement of the day. If you answer “No”, in two hours, the phone will remind you of the new measurement. If you are about to go to sleep, answer this question with a “Yes”, so that the phone will no longer remind you of the measurement. Remember to take the measurement immediately after waking up. After this, the phone will again remind you of the measurements every 2 hours.

In case you have an asthma attack, you must take the measurement at the onset of the attack, then take the medication, and take a new measurement 15 minutes from the first measurement. In connection with the second measurement, the phone will ask you about factors you believe are associated with the attack (dust, subzero temperatures, etc.). You can answer this question in the open text field. If the measuring event is interrupted, press “Cancel” on the upper left corner of the screen and start the measurement from the beginning.

Please note that the device is intended for your personal use only. All measurements completed with the device will automatically be recorded as your measurements. Use the device in exact accordance with the instructions, and ensure children do not gain access to it.



Figure 1a



Figure 1b

### 3. Setup

To function, Orla Etämittaustyö requires the following setup:

- Phone
- Etämittaustyö application  
The latest version of the application can be downloaded from the phone's store.
- Measurement device (incl. the device's manual)
- Etämittaustyö manual (this document)

## 4. Preparing the phone

### 4.1. Android

Please note that your phone must use the operating system version *Android 7.0* or higher. You can verify the version used in *Settings / General / Device information / Android version*.

Downloading the Orla Etämittäus application to your phone:

1. Turn on the phone and unlock it. From the start screen(s), search for *Play Store* and press the icon (Figure 2).
2. Type *Orla Etämittäus* into the text field that opens in the upper corner of the screen. After this, click the *magnifying glass*. (Figure 3).

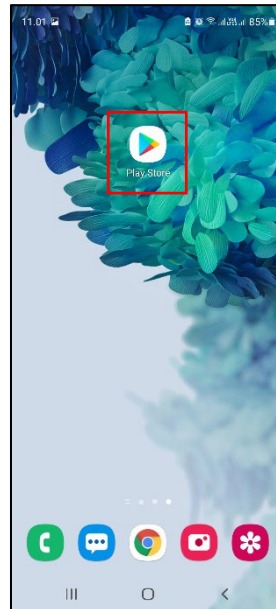


Figure 2

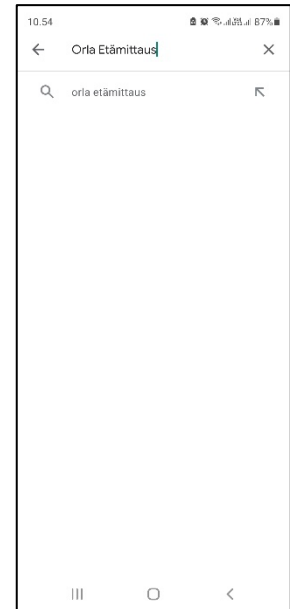


Figure 3

3. Select the *Orla Etämittäus* application by clicking the icon. (Figure 4).
4. Start the installation by clicking *Install* (Figure 5).

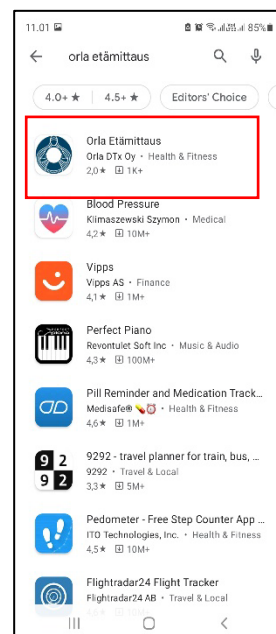


Figure 4

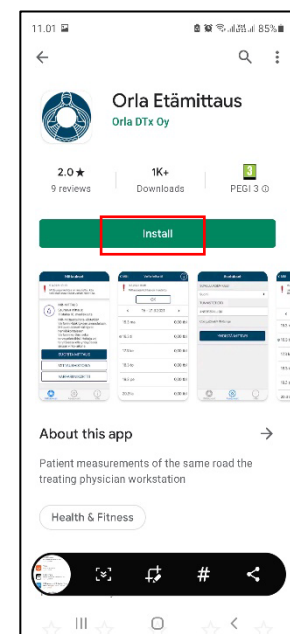


Figure 5

- The installation is complete when the text *Open* appears on the screen (Figure 6). Please note that the installation may take a while (depending on the speed of the network connection).
- You can now open the Orla Etämittaust application or exit by pressing the *Home Menu* button.
- When you open the application for the first time Orla Etämittaust will request access to necessary destinations (Location, Images/media/files, Bluetooth connection). Click *Allow* to install the application (Figure 7).

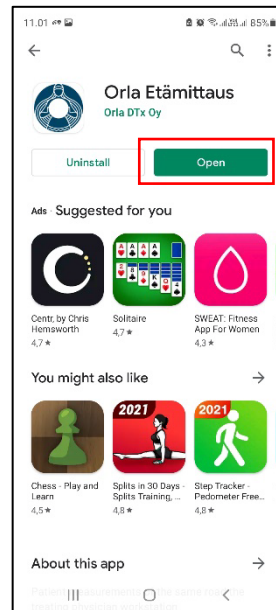


Figure 6

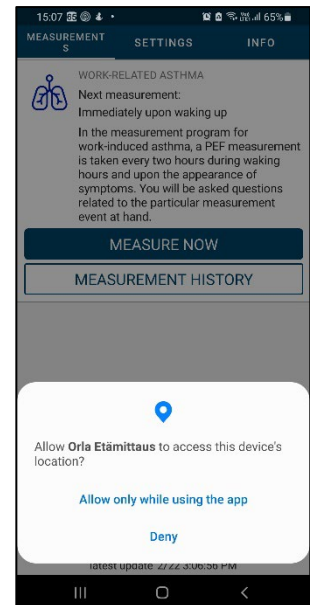


Figure 7

Please note that Orla Etämittaust will not use your image and media files or your location. However, at the same time, the transfer of measurement results between the phone and the measurement device are permitted under these categories.

## 4.2. iOS

Please note that your phone must use the operating system version *iOS 9.0* or higher. You can verify the version used in *Settings / General / Information / Version*.

Downloading the Orla Etämittaus application to your phone:

1. Turn on the phone and unlock it. From the start screen(s), search for *App Store* and click the icon. (Figure 8).
2. Click the *magnifying glass* icon (Figure 9) and type *Orla Etämittaus* into the text field that opens in the upper corner of the screen. Then press *Search*.



Figure 8



Figure 9

3. Download Orla Etämittaus application by clicking the download button (Figure 10). The application is installed automatically. Please note that the installation may take a while (depending on the speed of the network connection).
4. The installation is complete when the text *Open* appears on the screen. (Figure 11). You can open the Orla Etämittaus application or exit by pressing the *Home Menu* button.

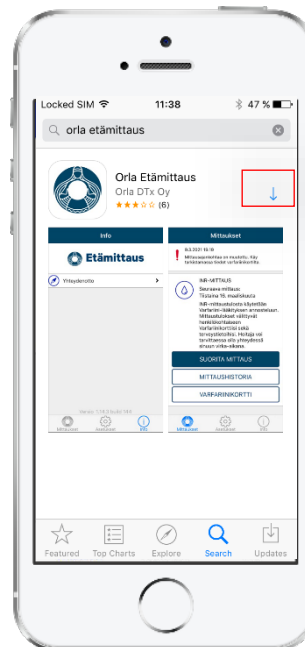


Figure 10

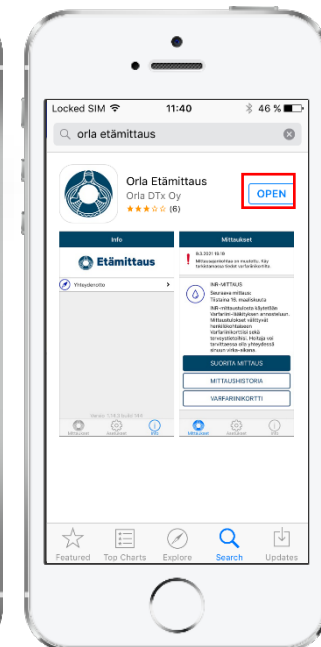


Figure 11



5. When you open the application for the first time, allow the application to send you notifications by clicking OK (Figure 12). If you do not allow notifications, alerts reminding you of a measurement etc. will be omitted.

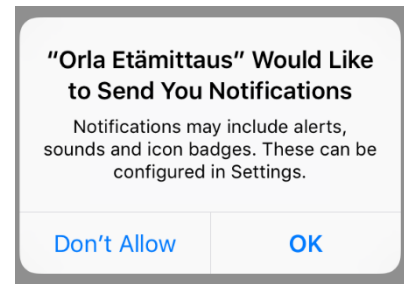


Figure 12

### 4.3. Phone settings

To function in a reliable way, the Orla Etämittäus application requires that certain settings of the phone's operating system have been made according to the instructions in this document. Orla DTx cannot guarantee a full functionality of the application if the phone's settings are not in accordance with the instructions provided in this document.

#### 4.3.1. Bluetooth

The phone's Bluetooth connection must be enabled. Without a Bluetooth connection, communication between the phone and the measurement device will not work.

#### 4.3.2. Lock screen

The maximum possible timeout should be set for the phone screen. The smallest compatible timeout is 5 minutes.

It is recommended that you lock the phone with password, security code, or pattern. This way, your phone, and the Orla Etämittäus application are protected against improper use.

#### 4.3.3. Airplane mode

Airplane mode cannot be enabled.

#### 4.3.4. Power saving

Power saving must be disabled. When power saving is enabled, the texts in the application can be difficult to read due to a dim screen. As a result of power saving, the phone may also fail to alert you to take a measurement.

#### 4.3.5. Date and time

For monitoring and reporting the measurement results, it is important that the phone's date and time have been set correctly.

#### 4.3.6. Network connection

For the transfer of the measurement results, it is important that a data connection is available for the phone. Measurements can also be taken without a data connection, in which case the measurement results are transferred the next time a data connection is available.

## 5. Taking a measurement

Take the first measurement immediately after waking up. After this, the phone will remind you of the measurement every two hours until you answer that the measurement in question is the last measurement of the day before going to sleep.

While the phone is alerting you, you can move to take a measurement by pressing the notification displayed on the phone or by acting in accordance with point 1 (below).

1. Start Etämittäus by clicking the application icon on the phone screen or by clicking the alert notification.
2. When the measurement program has been updated on the phone, the Measurements view (Figure 13) will appear, displaying the Diagnostic asthma measurement program. Start the measurement by pressing *Measure now*.

You can update the measurement program on the phone by pressing *Update information* (if a healthcare professional asks you to do so).

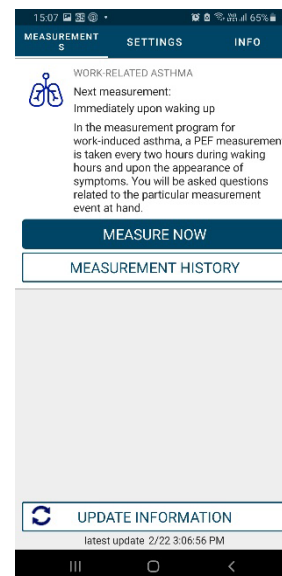


Figure 13

3. Select whether the measurement in question is a measurement included in the daily program (Included in the program) or an extra measurement due to an asthma attack or some other reason (Figure 14). If this is an extra measurement taken due to an asthma attack or some other reason, the application will request information on whether the measurement is to be taken *Without medication* or *After medication*.
4. Accept the selection by pressing *Continue*.

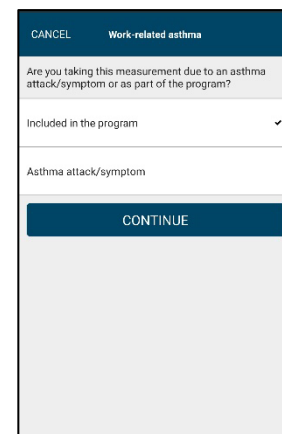


Figure 14

- Answer the questions whether you are on duty or off duty. If on duty, add your current task and workstation (Figure 15). You can add the Work task and/or Workstation your-self if you cannot find a suitable one on the list. Select the exposures involved in your current work task. Answer if you currently have symptoms or not. If yes, define the symptoms. Always accept your selection by clicking *Continue*.

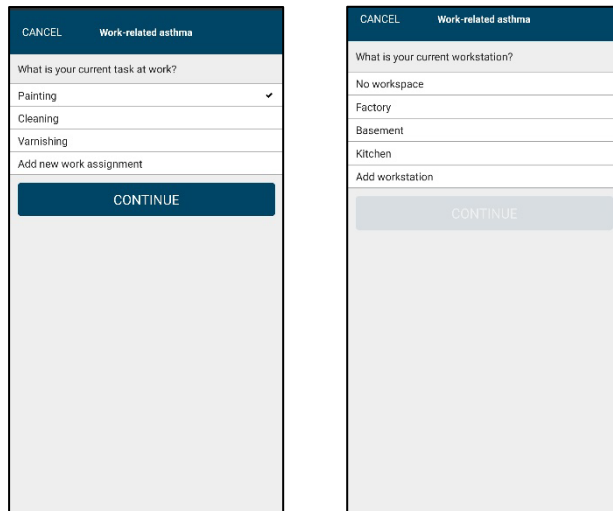


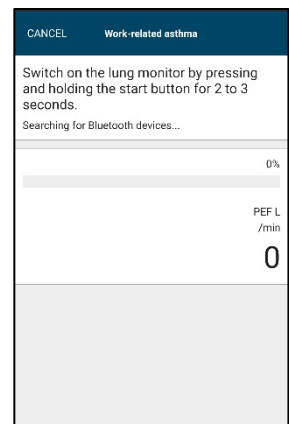


Figure 15

- The device will prompt whether this is the last measurement before going to sleep. Answer accordingly.
- The phone application will prompt you to turn on the measurement device (Figure 16). If the measurement device has not established a connection with the phone within 1 minute (Still searching for Bluetooth devices...), press *Cancel* and try again.

Vitalograph Lung Monitor	Medikro Duo
<p>Make sure the mouthpiece provided by the nurse has been installed onto the measurement device (Figure 17a). The measurement device is switched on by pressing the upper right button on the device for 2 to 3 seconds. The device will emit a tone, and a symbol depicting a blow will appear on its screen.</p>	<p>Make sure the mouthpiece provided by the nurse has been installed onto the measurement device (Figure 17b). The measurement device is switched on by pressing the button below the screen (Figure 17b). The device will emit a tone, and the text “PEF” and a graph depicting the blow will show up on the screen.</p>
 <p style="text-align: center;">Kuva 17a</p>	 <p style="text-align: center;">Kuva 17b</p>



8. The phone application will ask you to let out the first blow (Figure 18).

Follow the instructions below:

- Firmly grasp the device, but so low that your fingers do not cover the air outlet (Figure 19).



Figure 19

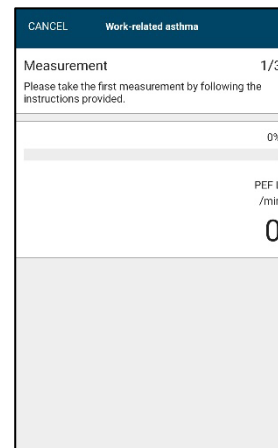


Figure 18

- Stand straight, breathe in as deep as possible, and at the same time, keep the device in front of your mouth. Lightly place the mouthpiece between your teeth and close your lips tightly around the mouthpiece. *With maximum force, let out a hard, sharp, and short blow into the meter.* (Figure 20)



Figure 20

9. From this point on, follow the instructions on the phone and act as requested by the phone. When the phone requests the next blow, count to five before blowing.
10. When the measurement batch is complete, the phone will notify you about it (Figure 21). By pressing *Continue*, you can also see a summary of your measurement results. The summary can also be viewed in *Measurement history*.
11. Exit the program by pressing the *Home Menu* button in the lower corner of the phone. The phone application will notify you again when it is time to take the next measurement.
12. The measurement device will shut down on its own.

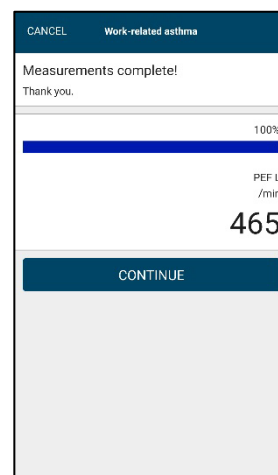


Figure 21

## 6. Contact information

If your problem is related to your health or medication, please contact your nursing staff.

Do not make any changes to your treatment without discussing with a health care professional.

The nurse's contact information:

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

If you are experiencing problems with the Etämittaustyöryhtymä Application, please contact:

Patient's technical support

Phone: +358 50 435 2071

Email: [potilastuki@orladtx.com](mailto:potilastuki@orladtx.com)

For problems with the measuring instrument, see the instruction manual for the instrument itself.

Any serious incidents should be reported to the manufacturer and to the competent authority.