



medituner®

INSTRUCTIONS FOR USE

# Careportal

FOR HEALTHCARE PROVIDERS ONLY

MEDITUNER AB

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# 1. General

## 1.1 Introduction

Welcome as a user of AsthmaTuner! Read this user manual carefully for important information and the best possible experience of AsthmaTuner.

## 1.2 Intended Use

The intended use of AsthmaTuner is to improve asthma control. This is mainly done by providing information and treatment recommendations which is generated based on a patient's lung function, symptoms and physician prescribed treatment plan.

Furthermore, AsthmaTuner facilitates management of respiratory diseases by processing lung function and user reported data and by providing information.

The actual diagnosis shall be done by a healthcare professional so home use is only for indicative purpose.

## 1.3 Intended Users

Mainly indicated for asthma, Chronic obstructive pulmonary disease (COPD), Interstitial pulmonary fibrosis (IPF) and cystic fibrosis.

For use by trained users, healthcare providers and researchers.

AsthmaTuner is intended for use from the age of 6 onwards. All use by children and adolescents under the age of 18 must be under the supervision of their guardians. This means that children and adolescents must receive support, advice and information from guardians when needed while using AsthmaTuner.

Entering a treatment plan in AsthmaTuner must be done by qualified healthcare personnel. AsthmaTuner is currently available in Swedish, English, Danish and Norwegian and should be used by people who are fluent in these languages.

## 1.4 AsthmaTuner Components

1. Wireless spirometer
2. Smartphone app for iOS and Android

### 3. Careportal – web interface for caregivers

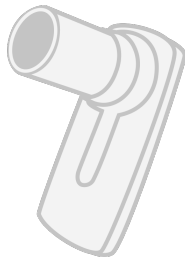


Figure 1. Spirometer

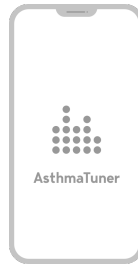


Figure 2. Smartphone app

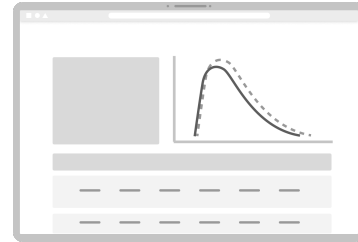


Figure 3. Careportal Web Interface

**Note!** The iOS and Android apps are very similar but may differ.

## 1.5 System requirements

To use the AsthmaTuner app, a smartphone with following requirements is needed:

- Bluetooth 4.0 or above
- iOS 14.5 or above
- Android 8 or above.
- In Sweden and Norway you need Mobile BankID or a relative with Mobile BankID to create an account


The AsthmaTuner Careportal is a web application than can be reached through a web browser on a computer. The approved browsers to reach the application include:

- Safari
- Edge
- Firefox
- Google Chrome

The recommendation is to always use the latest version of the browser since functionality on older browsers might be affected. Unless stated otherwise the two latest major versions of the above listed browsers are supported.

## 1.6 Important information for healthcare providers when using AsthmaTuner

Make sure to educate all users on how to use AsthmaTuner and make sure the patient knows how to measure their lung function.

-  Make sure that medicines included in the patient's treatment plan in AsthmaTuner are in accordance with drugs prescribed in the medical record system used at the clinic.

- ⚠️ Make sure the patient is not using medicines that should not be taken with certain asthma drugs, such as beta blockers.
- **Note!** AsthmaTuner is not a surveillance / monitoring system. You must inform the patient that he/she is responsible for seeking healthcare when needed.

## 1.7 Contraindications and complications of lung function tests

Lung function tests should not be performed if the patient has recently undergone surgery or myocardial infarction and aortic aneurysm. The assessment should be made individually by the responsible physician. Otherwise, complications are rare in spirometry examination. Very rare are dizziness and various types of chest pain. In case of acute dizziness, terminate the examination and rest before a new examination is done.

## 1.8 Using AsthmaTuner in a cyber-secure way

As a healthcare provider, safeguarding patient data and ensuring the security of your digital tools is of importance. Please consider adhering to the following best practices:

### Secure Access

Always protect your computer with robust authentication methods. This includes using a strong PIN code, fingerprint scanning, or facial recognition, if available.

### Lock When Away

Ensure that you lock your computer whenever you step away, even for a moment. This prevents unauthorized access and potential data breaches.

### Regular Updates

Keep your computer's operating system and software updated. This ensures you benefit from the latest security patches and enhancements.

### Educate & Inform

Instruct your patients about the importance of cybersecurity and guide them on best practices when using digital health tools. Your patients can find instructions in the Instructions for Use on the App.

## 2. Introduction to Careportal

The purpose of Careportal is to support the evaluation of patients' asthma and support them in treatment and self-care, both for physical and digital health care visits.

To get started, the clinic you are working on must be connected to AsthmaTuner. Contact [info@medituner.com](mailto:info@medituner.com) to connect to AsthmaTuner. The clinic appoints local AsthmaTuner administrators. These administrators are set up as admin users by the company MediTuner, which provides the service, and can then set up which of the clinic's healthcare personnel can log in and use the system.

### 2.1 Login and logout

To log in, visit [careportal.asthmatuner.com](https://careportal.asthmatuner.com). You can identify yourself with either SITHS card or Bank ID. If you use AsthmaTuner at multiple clinics, choose which one you want to log into.

Log out by clicking on the symbol with an arrow out through a door.

For countries without BankID, healthcare providers are invited to create an account by an administrator at the clinic. After the account has been created, the healthcare provider logs in with Personal ID, password and SMS code.

### 2.2 Change region or language

If you want to change the language, click on the language button in the header on the login page, or in the footer when logged in.

To change region click on the region button in the header on the login page.

### 2.3 Careportal User Types

The appearance and functionality of the Careportal interface differs depending on whether the user is registered as an Admin (administrator) or not. Admins can add new healthcare providers users to Careportal and decide what level of access these users have. Only admins have access to the following parts of Careportal:

1. Managing clinic level Treatment templates
2. Managing Healthcare Providers for a clinic
3. Editing clinic information
4. Activity log

### 2.4 Landing page

Once logged in, you can search for specific patients, send new invitations, and read about the

latest updates to Careportal.

## 2.5 Support page

If you need help with anything and want to get in touch with customer support, you can always contact us by pressing the question mark button on the bottom right corner (available in all views) and filling in the form. We will get back to you as soon as we can.

You may also look for answers under the top menu section called 'Help'. Here, you can read about frequently asked questions (FAQ) as well as reach us using the form on the right side.

# 3. Inviting patients to your clinic

To add a patient to the clinic, click 'New invitation' in the header or from the toolbar in any patient list. A window will open where you first fill in the patient's information and configure the available tools.

## 3.1 Add patient details

1. Fill in the required patient details
2. Add guardians (if applicable)
3. Click next to configure the tools

## 3.2 Configure the tools

1. Select the tools you want the patient to use
2. Tailor the settings to your patient's needs
3. Click 'Send to patient'

**Note!** When instructing a patient to perform a reversibility test, it is important that you inform them about which medication they should take for the test and how to take it correctly. The AsthmaTuner app will not provide any specific information about inhalers for reversibility tests, only that patients should take what their caregiver recommends.

## 3.3 After the invitation is sent

If a phone number was added, the patient will receive a welcome SMS. In certain regions they will also receive a code to create an AsthmaTuner account.

All patients receive an invitation to connect to the clinic in the app. If the patient accepts the invitation you will be able to view their data in Careportal.

All invitations are listed in the invitations list. Declined and accepted invitations are visible in the



list for 4 weeks. If a patient declines the invitation you can resend it.

### 3.4 Remove patient

If a patient should no longer use AsthmaTuner, you can remove the patient from the clinic. Select the patient in the patient list by selecting the checkbox and then press 'Remove'. You will no longer be able to see the patient's information, so it is important that you record the information before removing the patient. The patient will no longer be able to access their treatment plan after they have been removed.

## 4. Patient lists

Clicking 'Patients' in the top menu will take you to the 'All patients' list. Here, you quickly get an overview of which patients are connected to your clinic and key information about them.

You can also access the 'My patients' list and any clinic lists that have been created.

### 4.1 My patients

Any patients that are assigned to you are automatically listed in the 'My Patients' list.

### 4.2 Clinic lists

Any healthcare provider connected to your clinic can create custom patient lists that are visible for the entire clinic.

You can do this by going to 'Patients' and clicking 'New list' in the top right. Name your list and save it. After creating a list you can add patients to it by selecting them from any other list and choosing 'Add to list'. Select the list you want to add the patients to. This will not remove the patients from the other list they were in.

Removing patients from custom patient lists will not remove them from the clinic.

If you want to rename or remove a clinic list; go to the relevant list and press 'Edit' next to the name.

### 4.3 Sort, Search and Filter

It is possible to sort the patient list by clicking on the different headings in the table.

You can search for a specific patient by entering the patient's name or User ID in the search field.

## 4.4 View patient information

To get more information about a patient, click the patient's name in the table. You can also click on the other columns to quickly navigate to the related subpage. For each patient, information is divided into different tabs depending on their available tools and diagnosis.

# 5. Patient information

On the 'Patient information' tab you have access to patient details and can update instructions and send reminders.

## 5.1 Patient details

Patient details and contact information are listed on the page. Majority of patient details are filled in by the patient themselves in the AsthmaTuner app and cannot be changed in the Careportal interface.

As a healthcare provider you can add or edit the patient's phone number. Updating the phone number may affect the patient's ability to sign in to the app, so only make changes if you know the current number is incorrect. The patient will be notified of the change.

## 5.2 Edit instructions and send reminders

You can view the latest instructions that have been sent to the patient as well as edit and send new instructions.

You can also send SMS reminders to the patient for a number of scenarios.

## 5.3 Assign Healthcare Providers

The page also includes a dropdown for assigning a specific healthcare professional to the patient, for example to facilitate follow-up and sorting.

## 5.4 Order spirometer

In some markets you are also able to order a spirometer for your patient from the 'Patient information' tab.

# 6. Asthma Treatment Check

Under the tab 'Asthma Treatment Check' tab you can track how the patient's measured lung

function, reported symptoms and asthma control have developed over time. Data is collected here when patients use the Asthma Treatment Check tool in the app.

Data can be reviewed by month or year. To move forward or backward in time, click the left and right arrows. If you wish to view a specific period, click on the button between the arrows and select the time period's start and end.

By moving the cursor over the various points in the graph, detailed data on the lung function value and number of symptoms can be read.

**Asthma control is calculated by the following algorithm:**

Asthma control	Green – Controlled	Yellow – Partly controlled	Red – Uncontrolled
Markers	0 markers	1-2 markers*	3-5 markers*

Lung function <80% of personal best FEV1 is counted as a marker. Registration of symptoms for each symptom issue is counted as a marker 0-4

## 6.1 Treatment plan

The patient's treatment plan can be found at the bottom of this view in a tab called 'Treatment Plan'. Here, you can create a new treatment plan for the patient or edit the existing one. The treatment plan is color coded and divided into three stages, green for controlled asthma, yellow for partially controlled asthma and red for uncontrolled asthma.

### 6.1.1 Create or change a treatment plan

Click 'Create Treatment Plan' To create a new one, or make adjustments to an existing treatment plan, click 'Edit'.

1. Select the medication in the drop-down menu on the left.
2. Specify if the selected medication is a 'Regular' or 'As needed' type
  - a. For Regular medications; set the dose morning/lunch/evening
  - b. For As needed; set number per time and maximum number per day
3. Add the medication to the correct treatment level in the treatment plan by pressing the corresponding plus-button.
4. Repeat steps 1-3 until the treatment plan is complete, and then click 'Save'. The patient will receive a notification in their app that the treatment plan has been updated.

You can create an entire treatment plan by using a treatment template. To do this, select the treatment template in the upper left corner. The entire treatment plan is then populated.

**Warning!** Make sure that you have the right medication and strength by reviewing the treatment plan before leaving the tab 'Treatment plan'.

**Warning!** Ensure that the prescribed drugs are included in the Medicines Compendium (e.g. FASS) and that the dose does not exceed the Medicines Compendium recommended maximum dose for the drug by reviewing the treatment plan before leaving the tab 'Treatment plan'.

**Warning!** Ensure that the treatment plan is posted to the correct patient by reviewing the name and social security number before leaving the tab 'Treatment plan'

**Warning!** Inform the patient to always seek contact with the healthcare provider if he / she feels that AsthmaTuner recommends a dose that is too low or too high based on asthma status.

**Note!** Inform the patient to familiarize themselves with the AsthmaTuner user manual before starting treatment, and that use for children and teens under the age of 18 should be supervised.

**Note!** Also inform the patient that the maximum dose and dosage information for the drug will be indicated on the package when the drug is collected at the pharmacy.

### 6.1.2 Save as a favorite

You can save a treatment plan as a 'Favorite' and name it by typing a name for it in the box at the bottom and click 'Add'. The current treatment plan will be saved as one of your personal favorites. It can then be found under the page 'Treatment templates'.

## 6.2 Summary

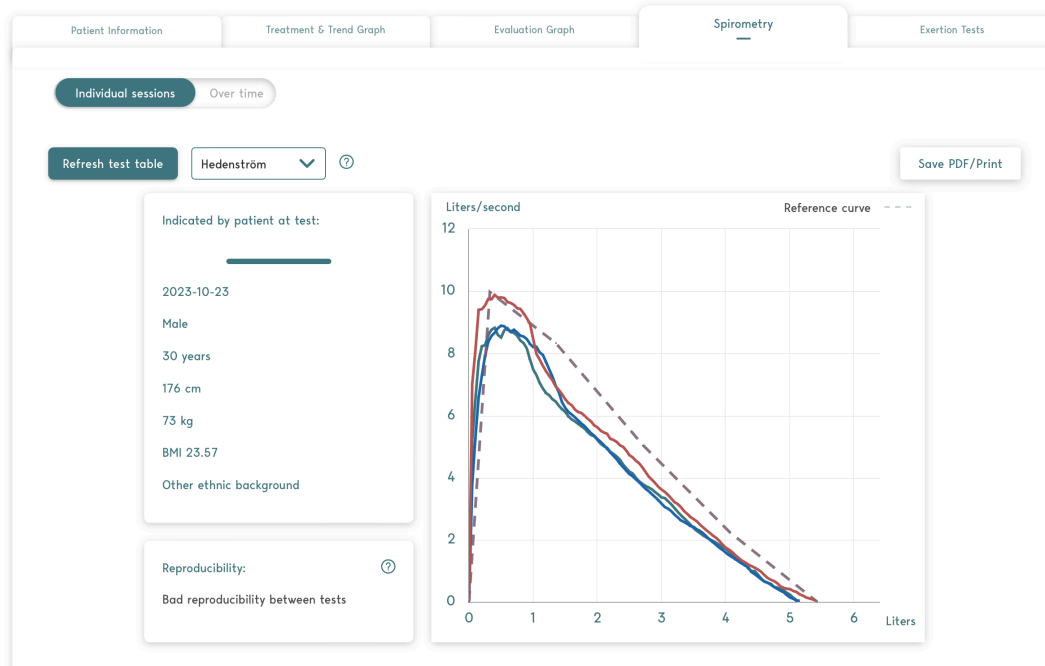
The 'Summary' tab next to 'Treatment Plan' includes additional data about the patient's treatment checks for the selected time period. You can see data such as distribution of reported symptoms, Lung function FEV1 and % of person best.

## 6.3 Patient history

Under the current treatment plan, there is a table with a patient-specific log showing which staff have looked at or made changes to the patient's treatment plan.

# 7. Spirometry

The spirometry tool in Careportal allows healthcare professionals to view and analyze spirometry and reversibility tests that patients have performed and saved in the AsthmaTuner app.



The top of the view includes the following sections:

- Individual test vs. Over time toggle
- Reference Value Selector
- Patient data (weight, height etc.) relevant to the selected test session
- Spirometry graph
- Reproducibility grading

Data points from the selected test(s) are plotted out as an FVC graph. Reference values are shown for each session as a dashed line in the graph. Careportal offers two reference value sets: Quanjer GLI (available for patients aged 6 – 99 years) and Hedenström (available for ages 19-70, Solymar for ages 6-18). Reference value can be selected in a dropdown menu. Normal range is available for Quanjer GLI reference values.

Please note that Hedenström/Solymar reference values are primarily used by Swedish clinics and that these specific values are not shown to patients in the AsthmaTuner app (Quanjer GLI only).

The top of the spirometry view also contains information about the reproducibility of selected tests, but at least three tests must be selected for this score to be calculated.

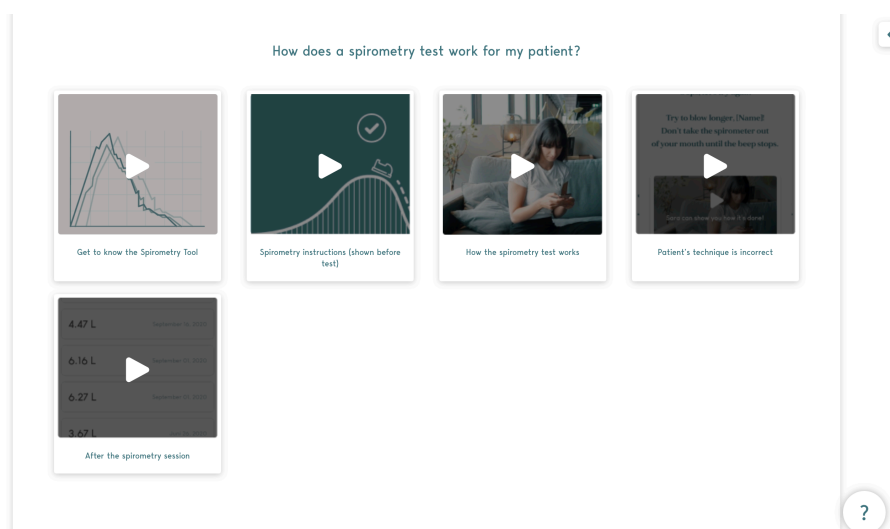
Regular Spirometry Test 11 Sep 2023 Good reproducibility

<input type="checkbox"/> Test 1 15:39	4 92 %	4.98 92 %	539 90 %	4.98 ---	3.68 ---	0.80 100 %	✓ Good test
<input type="checkbox"/> Test 2 15:39	4.23 97 %	5.16 95 %	582 97 %	5.14 ---	4.05 ---	0.82 102 %	✓ Good test
<input type="checkbox"/> Test 3 ★ 15:40	4.36 100 %	5.21 96 %	542 91 %	5.21 ---	4.38 ---	0.84 105 %	✓ Good test
Reference value	4.36	5.42	598.44	---	---	0.80	---

The rest of the spirometry view shows spirometry or reversibility session cards listed in a table. Each card contains information about:

- Time and date
- Type of test (Spirometry only or Reversibility test)
- Test quality
- Various standard data points (FEV1, FVC, PEF, FEV6, FEF2575, FEV1/FVC) along with the percentage when compared to reference values
- Absolute reference values in either Quanjer GLI or Hedenström

Finally, images and videos showing what spirometry and reversibility flows look like in the patient app can be found at the very bottom of this view.



## 8. Evaluation

The evaluation graph is used to evaluate variation in lung function over time. Data is collected here if you have chosen the 'Evaluation Tool' as the primary asthma tool when configuring the patient instructions.

You can choose whether you want to see information for PEF or FEV1 by using the drop-down menu in the upper left corner. The graph shows actual values in lung function. Below the graph, the daily variability is calculated per day, as well as the average over each measurement week.

You can choose to download all metrics as a .csv file by clicking the 'Download metrics' button

## 9. Admin pages

### 9.1 Treatment templates

To simplify the work on treatment plans there is the possibility to create standardized treatment plans in AsthmaTuner ('Treatment templates')

Here you find the pre-composed treatment templates for the healthcare staff. These are divided into two levels; Clinic-specific treatment templates that can only be set up and changed by administrators at the clinic, but which all clinic staff can access. Under 'My treatment templates' you can create personal treatment templates that only you see.

The star on the right of each treatment template is clickable. By clicking on the star, you can activate or deactivate the star; an activated star means that it is a favorite you want to use, it will then be included in the drop-down list when you create or change treatment plans for a specific patient

### 9.2 Healthcare Providers

Under the caregiver tab all staff that has access to the clinic is. By using the 'Delete' and 'Add' buttons, you can manage which healthcare providers at the clinic can use the system.

### 9.3 Your Clinic

Under the 'Your Clinic' page, you can add information that will be shown in the app for patients connected to your clinic. For example, your clinic's logo, contact information, visiting address and website.

### 9.4 Activity log

Under the Activity log page there is a list of the activities registered in the healthcare provider interface for the specific clinic.

It is also possible to search for a specific patient by name, User ID, or a specific healthcare provider at the clinic.