

MIR Minispir New Handheld PC Based Spirometer with BTPS **Sensor User Guide**

Home » MIR » MIR Minispir New Handheld PC Based Spirometer with BTPS Sensor User Guide



Contents

- 1 MIR Minispir New Handheld PC-Based Spirometer with BTPS Sensor
- **2 Product Information**
 - 2.1 Usage Instructions
- 3 Spirometry Tests
 - 3.1 Minispir NewTM
 - 3.2 Spirometry: FVC, SVC/VC, MVV, POST
 - 3.3 View Results
- 4 Documents / Resources
 - 4.1 References
- **5 Related Posts**



MIR Minispir New Handheld PC-Based Spirometer with BTPS Sensor



Product Information

The Minispir NewTM is a spirometer device that measures lung function. The device is connected to a PC through a USB port, and the MIR SpiroTM software is used to interface with the device. The device can perform spirometry tests, including FVC, SVC/VC, MVV, and POST.

Usage Instructions

Connecting the Device

Before connecting the MinispirTM by USB to a PC, the MIR SpiroTM software must be installed to interface with the device. Follow these steps:

- 1. Open up the MIR SpiroTM software from the link on your desktop. (**Note:** Each time you open mirspiroTM, it will open to this screen with the Your patient's tab will be selected.)
- 2. Plug the Minispir device into the USB computer port.
- 3. Before proceeding to test, make sure to update the device by clicking on the USB icon on the bottom-left of the screen. The menu window will then populate the screen.

New Subject Data Entry

To enter a new patient, follow these steps:

- 1. Press the button to open the new patient profile.
- 2. Fill in the required fields of Patient ID (you can also click the Auto number to generate an automatic ID number), Last name, First name, Date of birth, Gender, Ethnic group, Height, and Weight. You can also fill in more information under the Add info + button.
- 3. Upon completion click Save to confirm the new visit.

Returning Patient

To find a returning patient, follow these steps:

- There are two ways to find your patient in the system. The first is to find the patient in the list by scrolling through alphabetically. The second is to type the name into the search bar at the top-right of the MIR SpiroTM window.
- 2. Search by last name or by creation date

Spirometry Tests

Before carrying out a spirometry test, ensure that all subject data has been entered. Follow these steps for each type of spirometry test:

FVC

The patient has 15 seconds to start the test. When ready, follow these steps:

- 1. Slowly inspire as much air as possible (opening the arms helps) and then expire all of the air as fast as possible.
- 2. Without removing the mouthpiece from the mouth, finish the test by inspiring again as fast and as completely as possible.
- 3. The cycle can be repeated several times, without removing the mouthpiece. MirspiroTM will automatically select and show the best test and measured parameters.
- 4. To end the test, press Save Test or Cancel, and the test will terminate.

VC

It is possible (optional) to begin the test by making several complete breaths at rest. After three or four similar breaths, a message (VC/IVC) on the display will indicate that the ventilatory profile has been measured and you can now proceed to carry out the VC or IVC test. Follow these steps:

- 1. When the message VC/IVC appears, slowly inspire as much air as possible into the lungs and then slowly expire as much air as possible.
- 2. To end the test, press Enter or wait 3 seconds after the last volume cycle.

MVV

Start the test by carrying out a series of forced inspirations and expirations with the maximum possible amplitude. The suggested frequency is 30 breaths/min. The test will terminate automatically after 12 seconds. To end the test press Enter or wait 3 seconds after the last volume cycle.

POST

Click on the main toolbar to open the POST testing phase for the selected patient. The green curve will then show the best PRE test from the current session. At least one PRE test must be present in order to make POST drug testing on that patient. A POST test cannot be made if the patient has already made a Challenge test (bronchoconstrictor) on that day.

Minispir NewTM

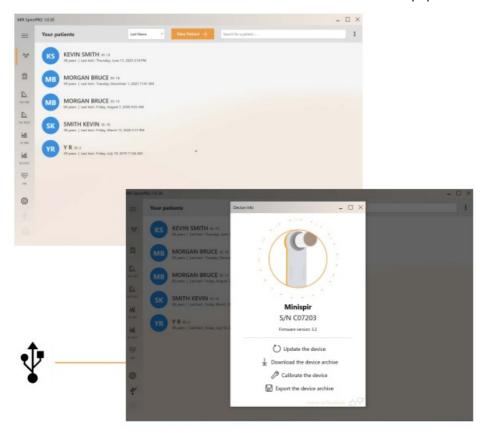
MIR Quick Guide

For more information see the Minispi User's Guide Before connecting MiniSpir™ by USB to a PC, the MIR Spiro™ software must be installed to interface with the device.

New Subject Data Entry

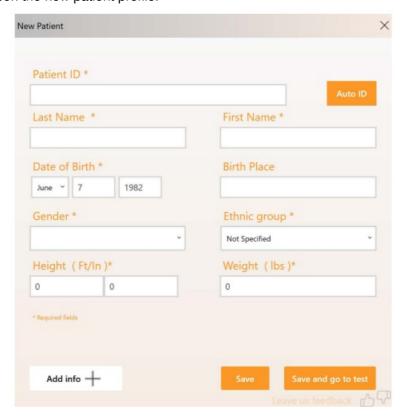
Open up the MIR Spiro™ software from the link on your desktop.

(**Note:** Each time you open mirspiro[™], it will open to this screen with the "Your patients" tab will be selected.) Plug in the Minispir device into the USB computer port. Before proceeding to test, make sure to update the device by clicking on the USB icon on the bottom-left of the screen. The menu window will then populate on the screen.



Enter a New Patient

1. Press the button to open the new patient profile.



2. Fill in the required fields of Patient ID (you can also click the Auto number to generate an automatic ID number),

Last name, First name, Date of birth, Gender, Ethnic group, Height and Weight. You can also fill in more information under the "Add info +" button.

3. Upon completion click Save to confirm the new visit.

Returning Patient

 There are two ways to find your patient in the system. The first is to find the patient in the list by scrolling through alphabetically. The second is to type the name into the search bar at the top-right of the MIR Spiro™ window.



Spirometry: FVC, SVC/VC, MVV, POST

Select the spirometry test:

To start any spirometry test, look to the menu on the left side of the screen and select the test you would like to perform. A screen will populate to choose the turbine. When a test is being performed, the display will show the real-time Flow/Volume curve or the Volume/time curve. The test must begin immediately after opening the test window. After 15 seconds of inactivity in the test window, the test times out and the software shows an error with the ability to restart. For correctly carrying out a spirometry test, it is strongly recommended to carefully follow the instructions as described below.



All subject data must be entered before carrying out a spirometry test. The test can be made from the main screen of MIR Spiro.

- Insert the disposable turbine with paper mouthpiece into the MiniSpir[™] device. Make sure the disposable
 turbine is inserted correctly (locking arrow keys facing towards you). Lock the turbine and mouthpiece in place
 by turning clockwise.
- It is recommended to use a nose clip. If the nostrils are not blocked it is easy to make a technical error that invalidates the results and which are difficult to be detected by the spirometer.
- Make sure the mouthpiece is inserted well into the mouth of the patient beyond the teeth, to ensure that air cannot escape from the sides of the mouth. The patient's head must be slightly raised when sitting or, alternatively, in a vertical position.
- It is preferable to perform it in a seating position, using a chair with an armrest but without wheels for 2

reasons: firstly because most of the reference values (normal or predicted values) were obtained in a seating position; secondly, for safety reasons, because forced expiration reduced venous return, with the possibility, although rare, of dizziness or even more rarely, fainting.

FVC

The patient has 15 seconds to start the test. When ready, slowly inspire as much air as possible (opening the arms helps) and then expire all of the air as fast as possible. Without removing the mouthpiece from the mouth, finish the test by inspiring again as fast and as completely as possible.

The cycle can be repeated several times, without removing the mouthpiece. Mirspiro™ will automatically select and show the best test and measured parameters. To end test, press Save Test or Cancel, and the test will terminate.

VC

It is possible (optional) to begin the test by making several complete breaths at rest. After three or four similar breaths, a message (VC/IVC) on the display will indicate that the ventilatory profile has been measured and you can now proceed to carry out the VC or IVC test. VC test: When the message VC/IVC appears, slowly inspire as much air as possible into the lungs and then slowly expire as much air as possible. To end the test, press Enter or wait 3 seconds after the last volume cycle.

MVV

Start the test by carrying out a series of forced inspirations and expirations with the maximum possible amplitude. The suggested frequency is 30 breaths/min. The test will terminate automatically after 12 seconds. To end the test press Enter or wait 3 seconds after the last volume cycle.

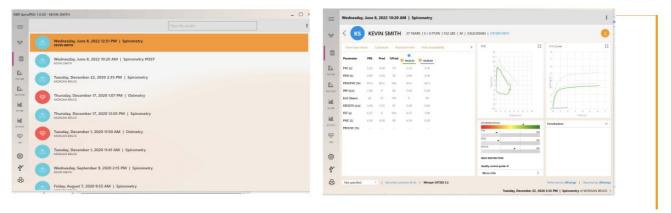
POST

Click on the main toolbar to open the POST testing phase for the selected patient. The green curve will then show the best PRE test from the current session. At least one PRE test must be present in order to make POST drug testing on that patient. A POST test cannot be made if the patient has already made a Challenge test (bronchoconstrictor) on that day.

View Results

On the main menu screen of MIR Spiro™

- 1. Select the Clinical Results tab located in the main menu column.
- 2. Then, choose the test needed from the list that populates and double-click it.



3. The results page will open with options to select parameters, change from table to chart, and use the dropdown menu to send the results to the healthcare provider.

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Documents / Resources



MIR Minispir New Handheld PC Based Spirometer with BTPS Sensor [pdf] User Guide Minispir New, Minispir New Handheld PC Based Spirometer with BTPS Sensor, Handheld PC B ased Spirometer with BTPS Sensor, PC Based Spirometer with BTPS Sensor, Spirometer with BTPS Sensor, BTPS Sensor

References

- Smart One: App-Based Personal Spirometer (PEF, FEV1)
- Digital Medical Devices, Oximetry and Spirometry Supplies MIR

Manuals+,