

Calibrating the Spirometer

Calibrate the spirometer on the day of use. Various factors such as temperature changes can affect the calibration of your spirometer. For additional information please refer to the manufacturer's product manual.

Steps—

1. Select a patient. You can create a test patient for calibration tests or perform calibration in conjunction with patient testing.
2. Select the Spirometer button  from the Add to Case screen.
3. Select the Calibrate button  from the Spirometer screen.
4. Select the New Cal  button from the next screen.
5. Enter the information for the person performing the test, the calibration syringe number and sensor number if needed.



Syringe Number

Spirometry Calibration			
Date	02/08/10 07:08:12 AM	Sensor ID	1153623562
Performed By	J. Foisy RN	Sensor SN	522187
Syringe Volume	3000 ml.	Temperature	70 deg. F
Syringe S/N	303986	Accepted Pumps	0

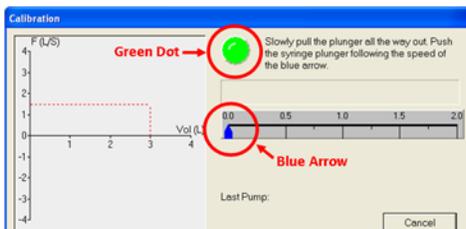


Sensor Number

6. Place a mouthpiece on the sensor and securely place the mouthpiece into the end of the rubber connector placed on the calibration syringe and select Start Cal.



7. Wait for the Spirometer to zero out and the green dot to appear in the calibration window. **Starting with the plunger all the way in**, gently and smoothly pull the plunger out all the way and then push it back in the same manner. Try and follow the speed of the blue arrow on the calibration screen while pushing the plunger in.



Verification Pump	
Corrected Volume	3.008 Liters (2.910 to 3.090 Liters)
Percent Difference	0.272 % (-3.00% to 3.00%)
Is this acceptable?	
<input type="button" value="Yes"/> <input type="button" value="No"/>	

8. Three to five attempts are required and then the Verification Pump window will open. Verify the corrected volume value is between (2.910 and 3.090 Liters) & click the Yes button. If the corrected volume is out of range, click the No button and repeat the calibration.

9. **Click the Exit button.** Ensure there is a green checkmark in the save box next to the Spirometry Calibration report thumbnail. Click the Save button to save the report to the case. Store reports per organizational policy.



Patient Testing

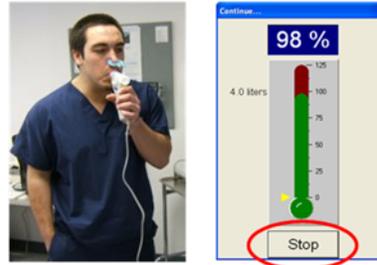
Follow your local protocols for all medical testing procedures. The procedures below are only general guidelines based on the use of the MIDMARK IQ Mark Digital Spirometer.

Testing Steps—

1. Select a patient and then click the green Spirometer button. 
2. Select the green Start New Report button. 
3. Enter detailed patient information on the Patient Information screen; yellow asterisks are required information. Check smoker if the patient was ever a smoker, add how many cig/day and # of years smoked. If patient has quit, check Quit box and enter # of years ago that they quit. Click the green Continue Report button. 

4. Apply a clean, disposable mouthpiece to the Spirometer handle. Note that the patient blows air in the direction of the arrow. 

5. Demonstrate to the patient how to perform the test.



6. Click the Start New Test  button to perform Spirometry testing. Have patient sit or stand, apply the nose clip, and blow out as long and hard as they can. The patient must either inhale at the end of the test or you must click the stop button on the incentive screen.

7. After each test the Spirometry Confirmation screen appears. Click the Yes button to accept the test attempt, unless an error has occurred. Click the Yes button to continue patient test attempts or click the No button when all attempts are complete.

8. **If you want to do Post Bronchodilator (BD) testing, don't save the report to the case yet.** Click the Spirometry report thumbnail. Once in the report, click the Medication dropdown and select a medication. Click the Perform Post BD button, and click Yes to amend the report.



9. Click the Save Review  button & then the green Save  button to save the report to the case.

10. When testing is complete, click the Exit  button and the green Save  button to save the report to the case.