



COPD Spirometry Interpretation Tip Sheet

1. Check the report date and **demographic** information: date, name, age, height, sex, and self-reported ethnicity.

2. Look for a comment by the **technician** to confirm that the procedure was performed in accordance with the American Thoracic Society/European Respiratory Society (ATS/ ERS) standards and that there was a good patient effort.

3. Review the FEV₁, FVC and FEV₁/FVC ratio.

a. Compare your patient's values to the **lower limit of normal** (LLN) for the predicted values.

i. Normal is defined as ≥ the LLN;

Abnormal is defined as < the LLN.

b. Is the FEV,/FVC ratio normal or abnormal?

i. Patients with COPD have a postbronchodilator FEV₁/FVC ratio that is less than the LLN.

- c. Is the FVC normal or abnormal?
- d. Is the FEV, normal or abnormal?

4. Determine if **obstruction** is present.

a. Obstruction is defined as a FEV_1/FVC ratio < the LLN.

5. Check for **bronchodilator responsiveness** (previously described as 'reversibility').

a. Bronchodilator responsiveness is defined as an increase in $\text{FEV}_1 \ge 200 \text{ ml}$ and a 12–15% change from pre- to post-bronchodilator.

6. If obstruction is present, quantify the severity of airflow obstruction by the reduction of the post-bronchodilator FEV₁ % predicted of normal. (See Table below.)

7. Synthesize the report by articulating the findings above. **Compare with previous** spirometry, if available. Summarize implications diagnostically and for follow-up spirometry.

Obstruction Severity Classification Table^{*} (in patients with an FEV₁/FVC ratio <LLN)

Severity classification	Post-bronchodilator FEV, % predicted
Mild	≥80%
Moderate	50-79%
Severe	30-49%
Very severe	<30%

*Reference: GOLD Guideline 2019, CTS 2007

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