

2005 ATS/ERS Spirometry Recommendation Changes

Unit 3 – The Quality Assurance Program

Volume Calibration Check – Volume Spirometers Flow Spirometers

Pages: 3-4; 3-5; & 3-6

The volume recorded when air is injected from the syringe into the spirometer must be within **3.5%** of the syringe volume. For a 3.00-liter syringe, the injected volume should read between **2.90 and 3.10** liters, inclusive.

2005 ATS/ERS Spirometry Recommendation Changes

Unit 4 – Spirometric Technique

Pages: 4-7; 4-18; 4-19

Section E.2. There are 2 additional acceptability errors: obstructed mouthpiece and extra breaths.

Criteria for (Reproducible) Repeatable Spirograms –

The term “**repeatable**” now replaces “**reproducible**” when referring to the variability between measurements.

From only acceptable maneuvers:

Highest and second highest FVC must be within **150 ml**

Highest and second highest FEV1 must be within **150 ml**

If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue

If **FVC \leq 1.00 L**, then repeatability targets are **100 ml**

2005 ATS/ERS Spirometry Recommendation Changes

Unit 5 – Basic Spirometric Calculations

Pages: 5-1; 5-2; 5-4; 5-8; 5-10; 5-12; 5-32; 5-34;

Criteria for (Reproducible) Repeatable Spirograms –

The term “**repeatable**” now replaces “**reproducible**” when referring to the variability between measurements.

From only acceptable maneuvers:

Highest and second highest FVC must be within **150 ml**

Highest and second highest FEV1 must be within **150 ml**

If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue

If **FVC \leq 1.00 L**, then repeatability targets are **100 ml**

Hankinson JL, Kawut SM, Shahar E, Smith LJ, Stukovsky KH, Barr RG. Performance of American Thoracic Society-Recommended Spirometry Reference Values in a Multiethnic Sample of Adults: The Multiethnic Study of Atherosclerosis (MESA) Lung Study. Chest; 137(1):138-45, 2010.

Unit 6 – Comparing Observed to Predicted Normal Values
Pages: 6-2; 6-5

Racial Adjustment for American-born Asians –

Until separate reference equations are published and accepted for **American-born Asians**, the NHANES III Caucasian predicted and lower limits of normal (LLN) values should be used and an adjustment factor of **0.88** should be applied to the FVC and FEV₁. Note that **the Caucasian predicted and LLN values should be multiplied by 0.88** to obtain the American-born Asian predicted and LLNs.

2005 ATS/ERS Spirometry Recommendation Changes

Unit 9 – Additional Exercises

Pages: 9-22; 9-24; 9-28; 9-29; 9-35; 9-40

Criteria for (Reproducible) Repeatable Spirograms –

The term “**repeatable**” now replaces “**reproducible**” when referring to the variability between measurements.

From only acceptable maneuvers:

Highest and second highest FVC must be within **150 ml**

Highest and second highest FEV1 must be within **150 ml**

If both criteria met, test may be concluded; otherwise continue testing until both are met or a maximum of 8 maneuvers or the subject/patient cannot or should not continue

If **FVC \leq 1.00 L**, then repeatability targets are **100 ml**