

Spirometry 360 Grade	Age Seven Years or Older	Age Six or Younger
A (meets all ATS rules)	3 acceptable efforts <i>and</i> variance \leq 150ml	2 acceptable efforts <i>and</i> variance \leq 100ml or 10% of FVC
B (minimum ATS rules)	2 acceptable efforts <i>and</i> variance \leq 150ml	Not used
C (still Clinically useful)	2 or 3 acceptable efforts <i>and</i> variance \leq 200ml	1 acceptable effort
UC (Use with extreme Caution)	1 acceptable effort	Not used
NP (Not Passing)	No acceptable efforts or any acceptable efforts with variance $>$ 200ml	No acceptable efforts

- ▶ **Quality grades serve as a guide to judge the reliability of the test**
 - ▶ Quality grades A to C indicate a clinically-reliable test. A and B are more reliable than a C.
 - ▶ Grade UC and NP indicates an inadequate test. Typically, the results must be used with extreme caution or discarded from clinical care, especially if the results are abnormal. However a single test may often be used if the percent predicted values are normal. A single good effort in a very young child may be used with caution if it appears that child gave sufficient effort.

- ▶ **Calculating variance to confirm reproducibility:**
 - ▶ Using the 3 best curves to calculate values:
 - ▶ **FVC variance:** Subtract the second largest FVC from the largest FVC
 - ▶ **FEV₁ variance:** Subtract the second largest FEV₁ from the largest FEV₁
 - ▶ Use the larger variance to determine “**maximum variance**”
 - **ATS 2005 Guideline: Use a maximum variance of \leq 150ml**
 - ▶ Most devices will display this calculated variance for your review