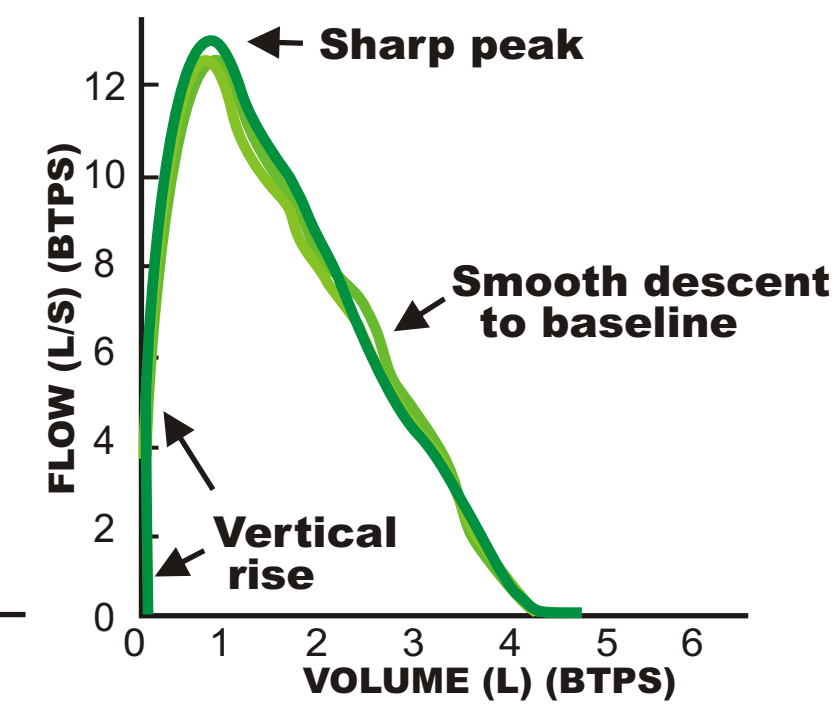
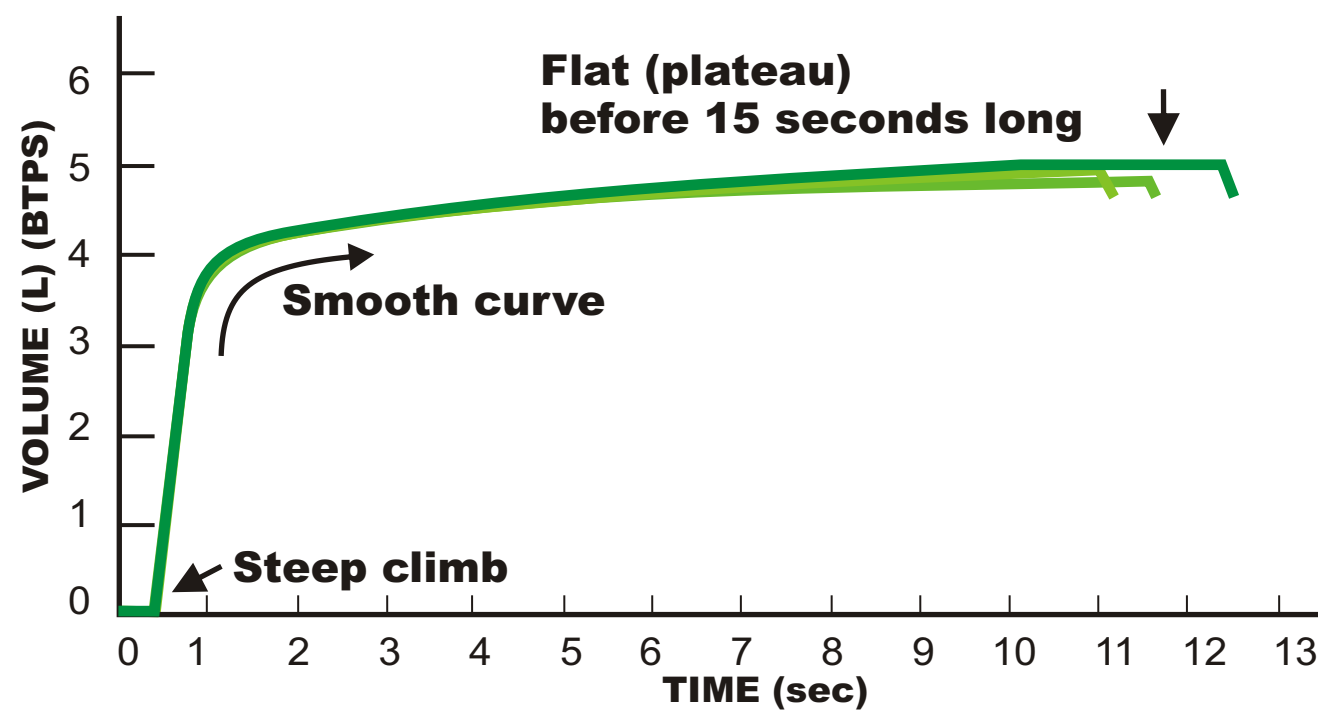


Get Valid Spirometry Results EVERY Time

**A Valid Test has:
3 or More Good Curves
and Repeatable FVC and FEV1 ***

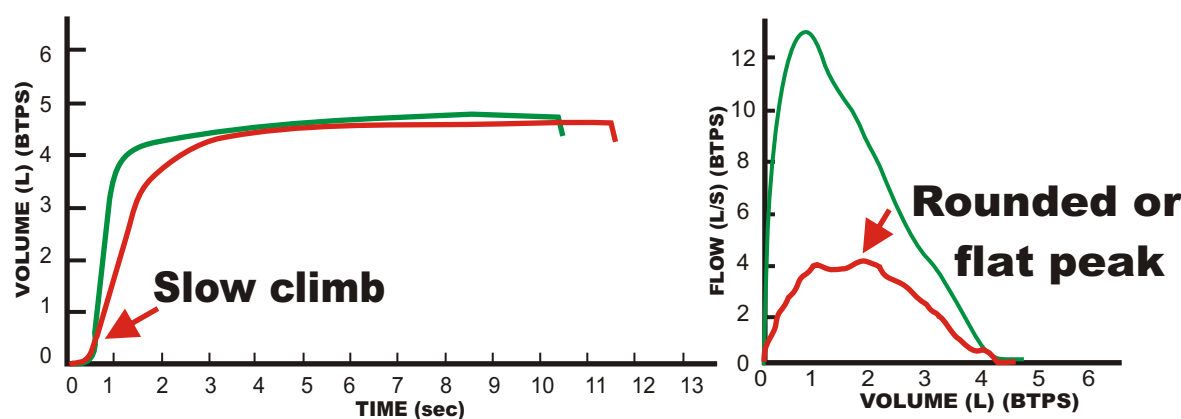
*Use most current American Thoracic Society/
European Respiratory Society (ATS/ERS) standards



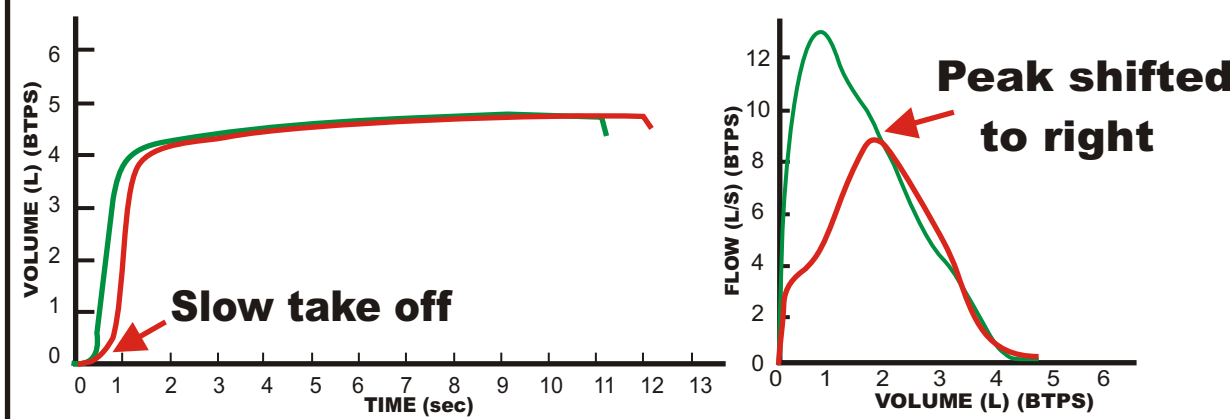
KEY
Green = Good Curve
Red = Error

HOW TO CORRECT TEST ERRORS

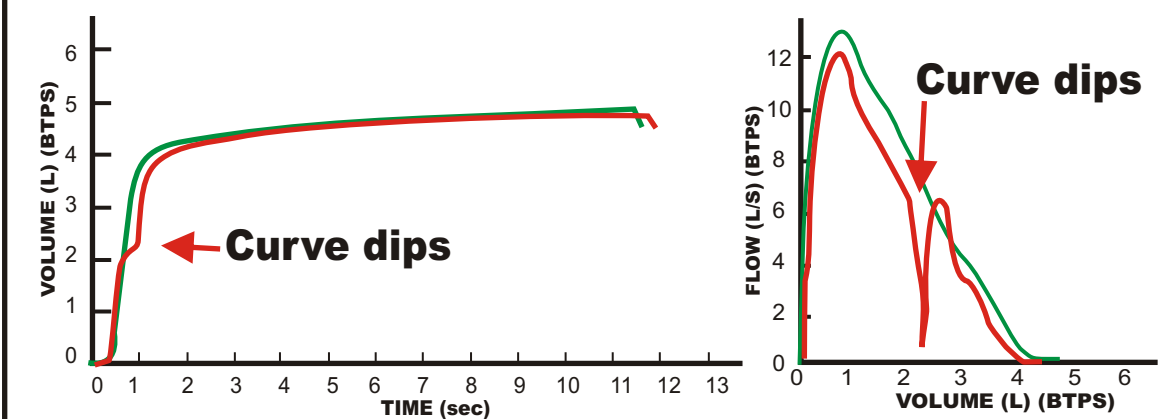
Poor Initial Blast
Coach: Blast air out HARDER



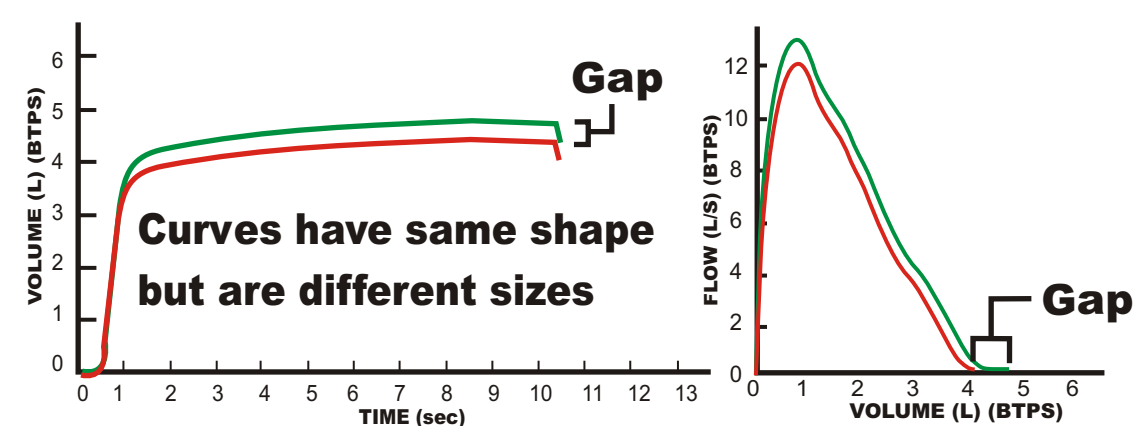
Hesitation; Slow Start; Large Extrapolated Volume
Delete Curve; Coach: Blast FASTER



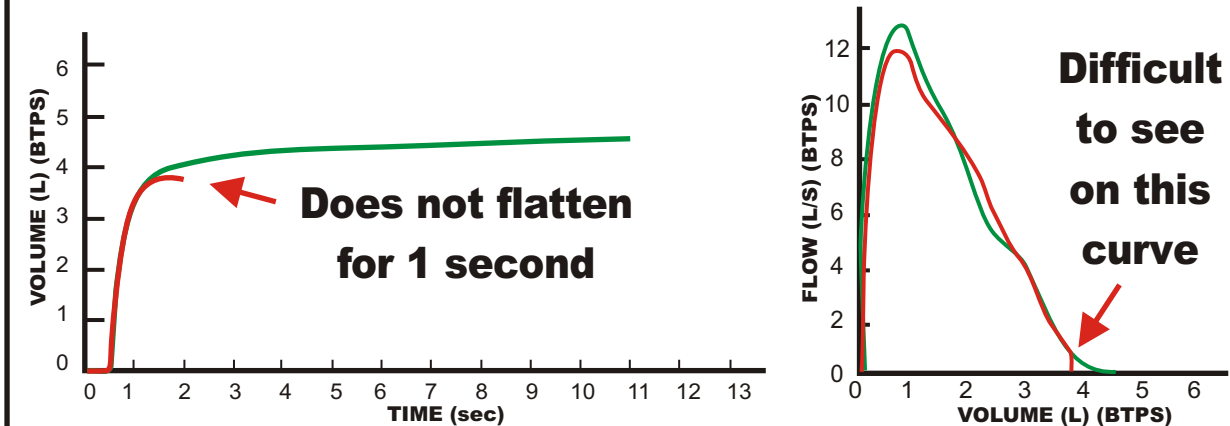
Cough in First Second
Delete Curve; Correction: Try a drink of water



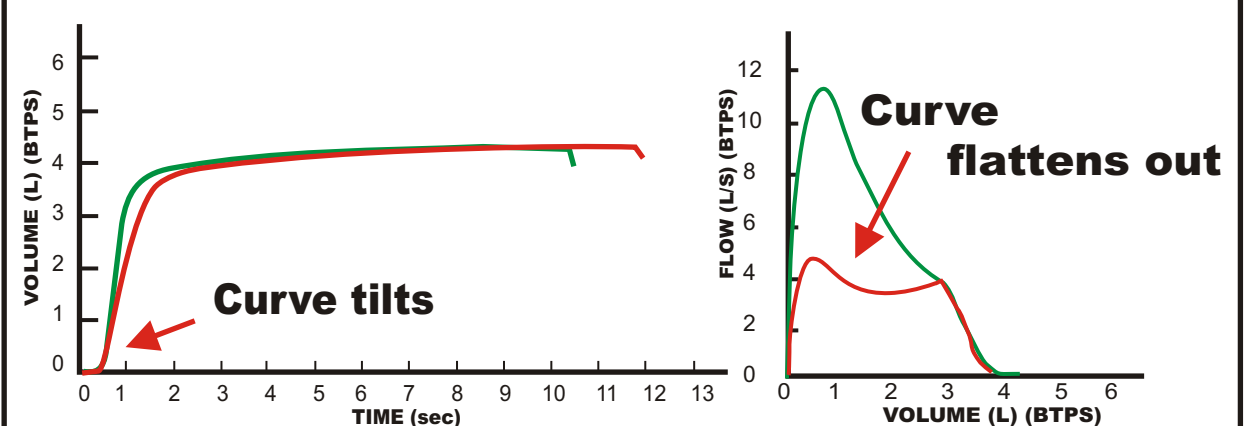
Incomplete Inhalation
Coach: Take a DEEPER breath



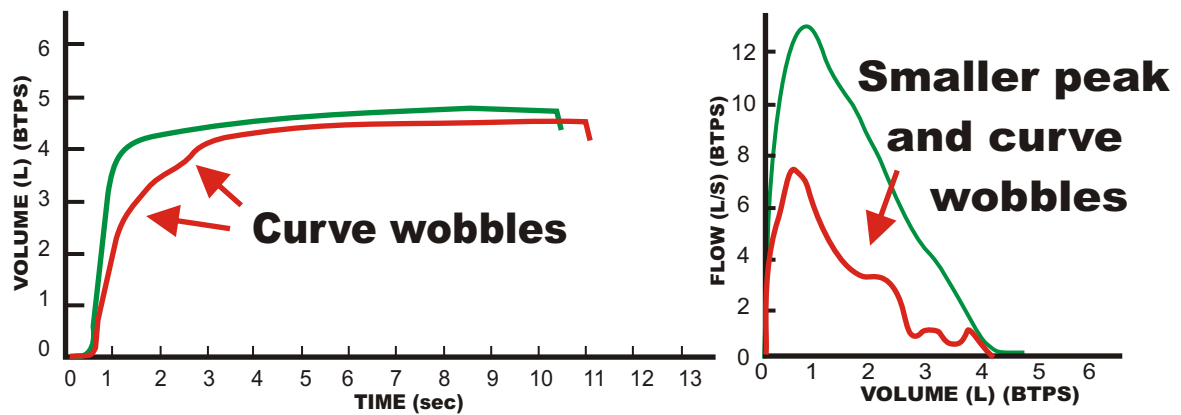
No Plateau Before 15 Seconds
Coach: Keep blowing until told to stop



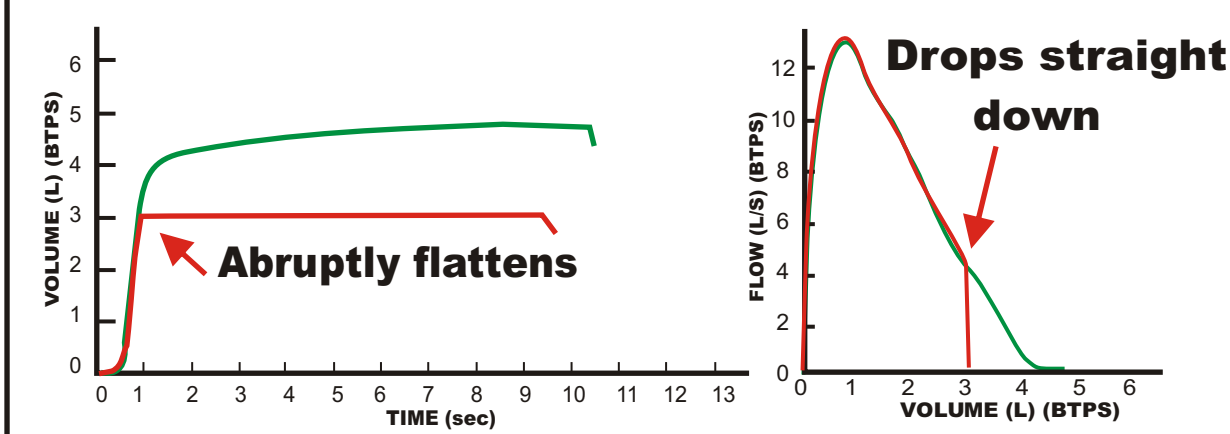
Inconsistent Effort
Coach: One continuous blast and keep blowing



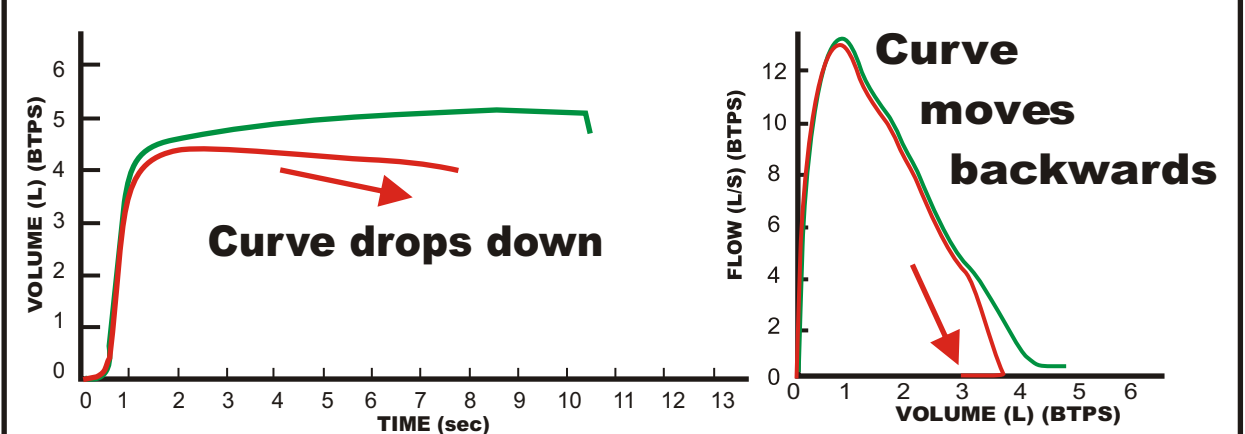
Partially Blocked Mouthpiece
Coach: Position mouthpiece between teeth and on top of tongue; secure dentures



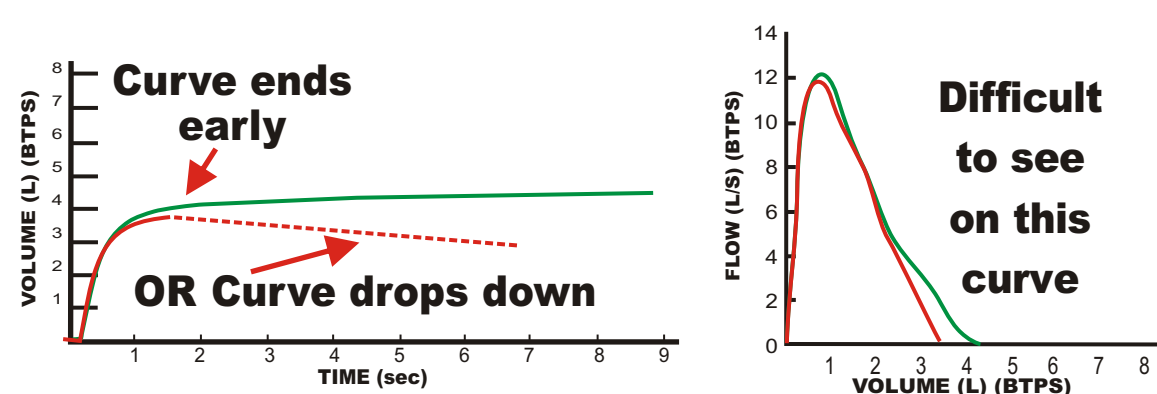
Glottis Closure or Breath Holding
Coach: Initial BIG BLAST then RELAX and keep blowing



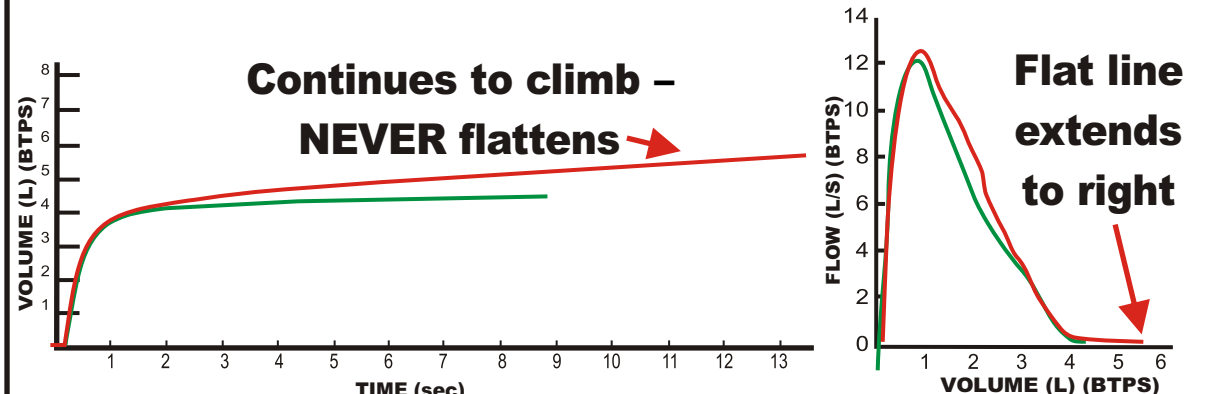
Leak
Correction: Check equipment and connections



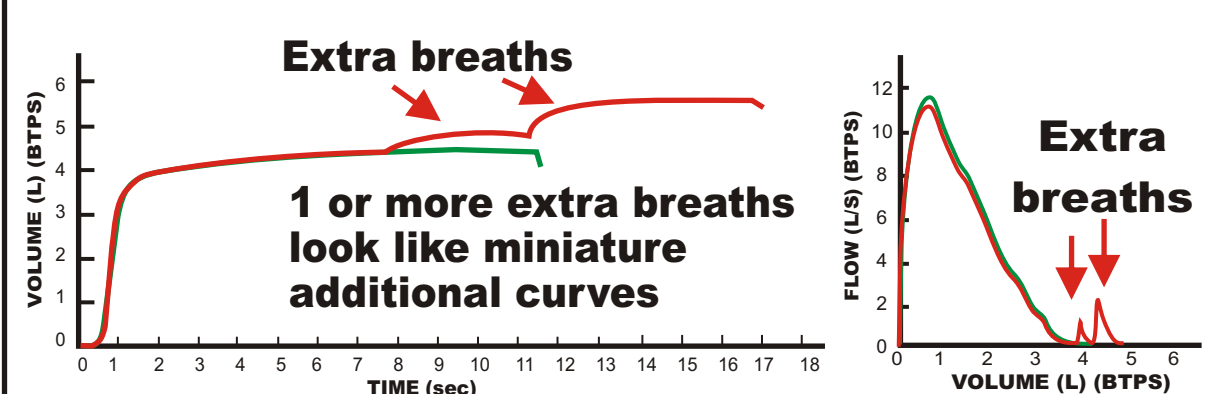
Negative Zero Flow Error
Correction: No airflow through sensor when spirometer zeroing
Hold sensor upright during test



Positive Zero Flow Error
Correction: No airflow through sensor when spirometer zeroing
Hold sensor upright during test



Extra Breaths
Correction: DELETE CURVE; Use nose clips and lips tightly sealed



Delivering on the Nation's promise: Safety and health at work for all people through research and prevention.

To receive documents or more information about occupational safety and health topics, please contact NIOSH: 1-800-CDC-INFO (1-800-232-4636) TTY: 1-888-232-6348 email: cdcinfo@cdc.gov or visit the NIOSH Web site at www.cdc.gov/niosh
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