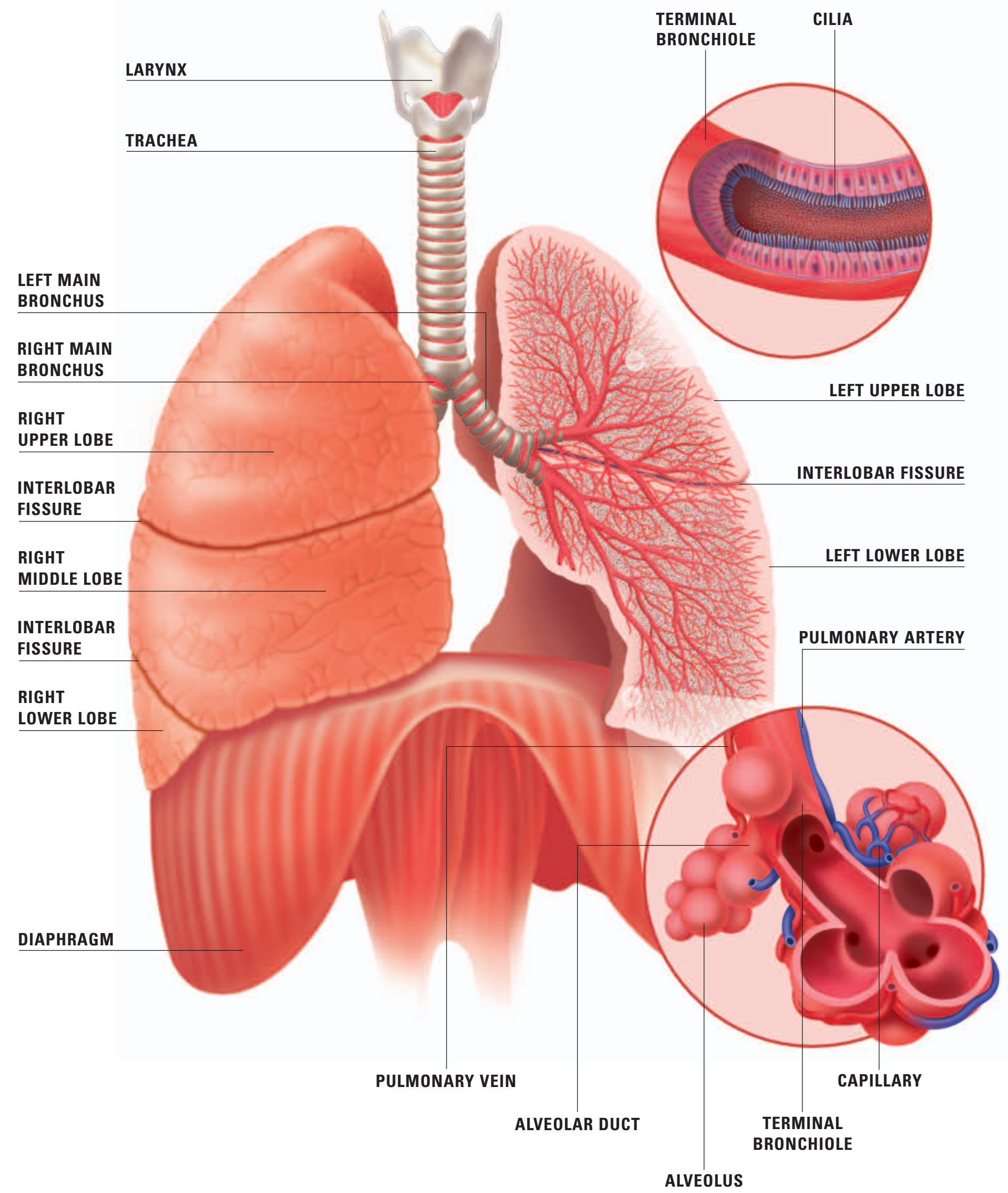
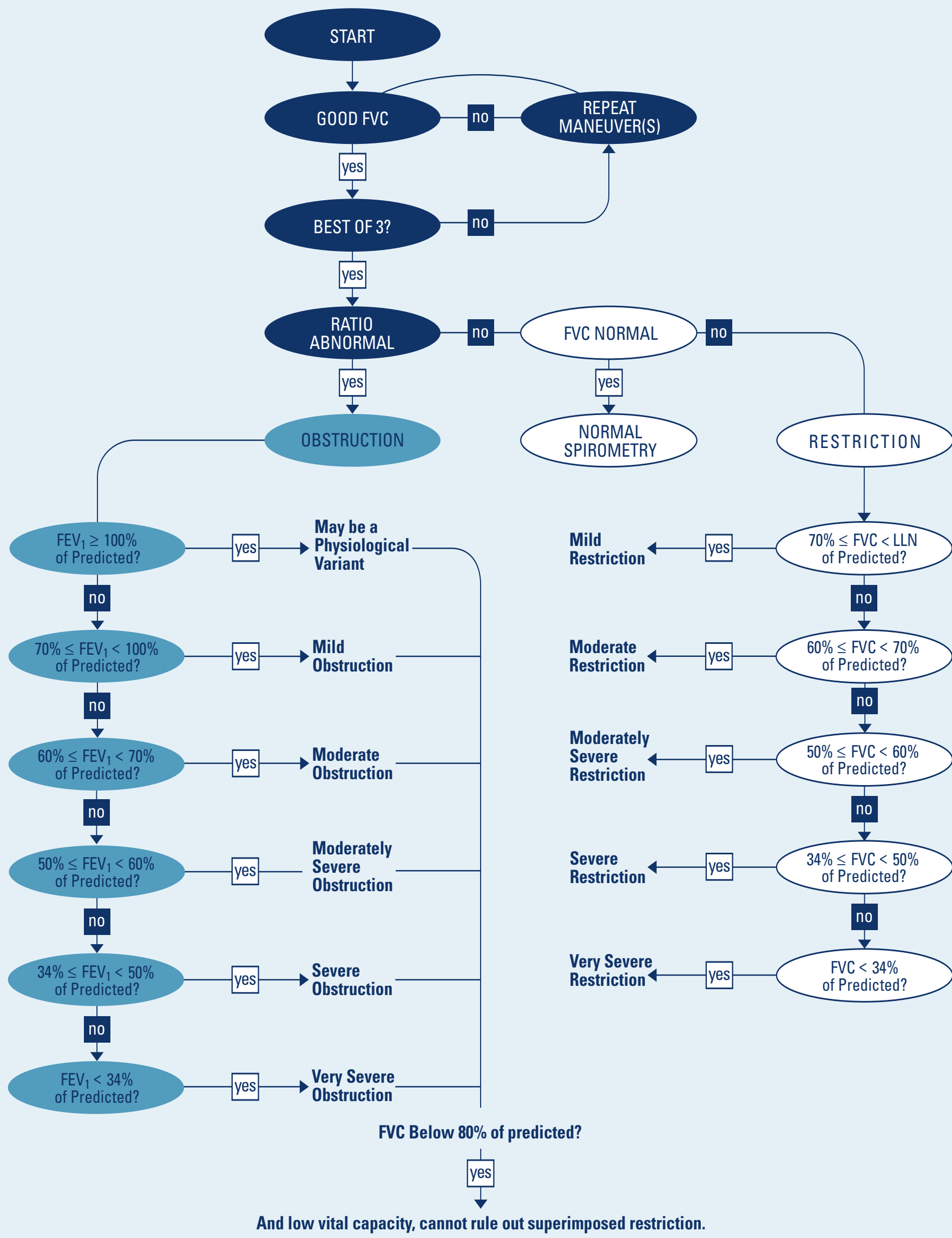


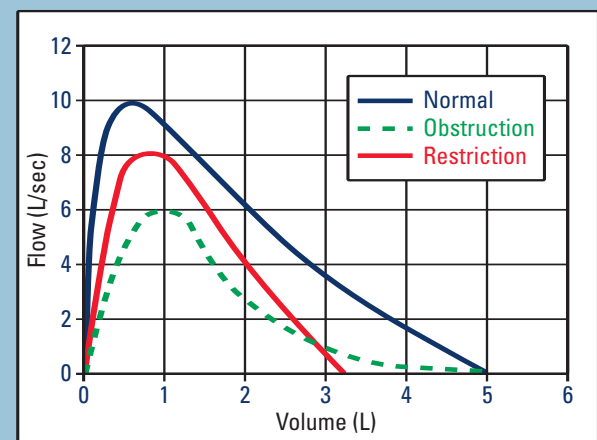
Spirometry Reference Chart



This flowchart follows The American Thoracic Society Example For Interpretation.

Typical Spirograms ranging from normal limits to severe restriction.

Typical Spirogram curve for normal, obstruction and restriction patterns



For your protection, all of Welch Allyn Spirometers use disposable flow transducers that minimize the risk of cross contamination.

Welch Allyn
4341 State Street Road
PO Box 220
Skaneateles Falls, NY 13153-0220
www.welchallyn.com

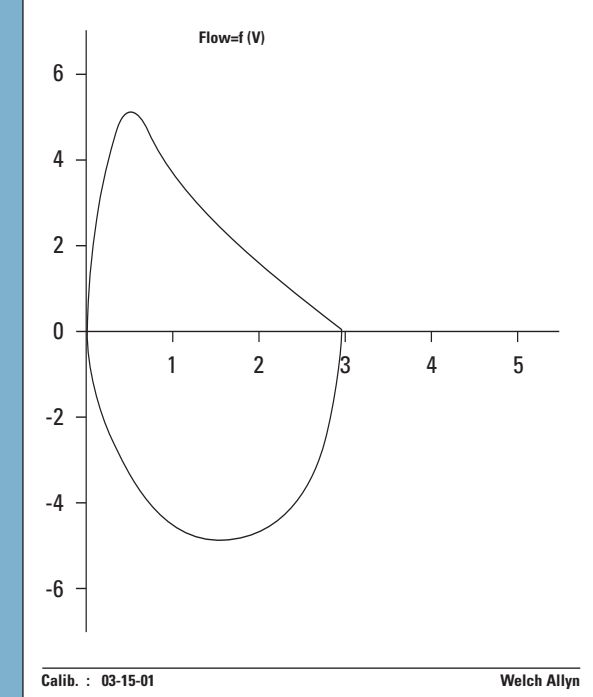
Welch Allyn

Advancing Frontline Care™

Normal Spirometry

Note the sharp initial peak flow, then relatively straight descent at about 45 degrees to the baseline. All of the parameters are within normal limits.

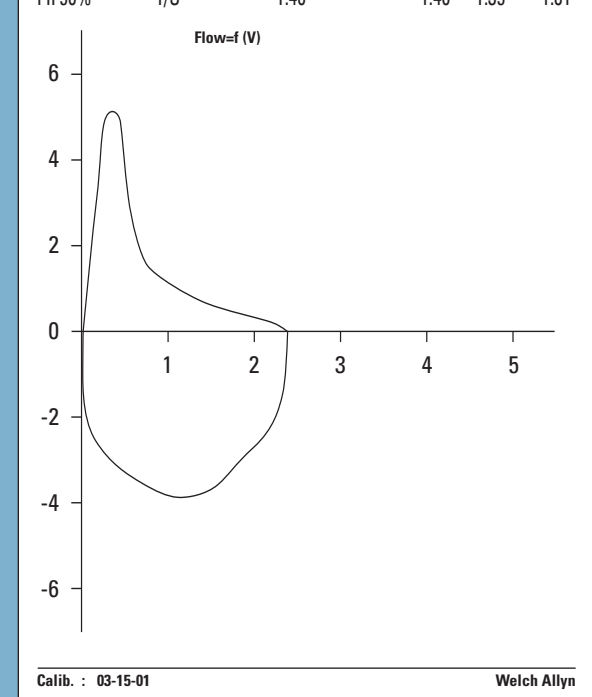
Pat-Name: LECKY-CATHERINE		CARMEN A GASPERO MD		
Pat-Number: 0258974632		06-21-01 18:21		
Age: 67 year	Height: 70 ins	Ethnic: C	Smoker: N	
Gender: F	Weight: 131 lbs			
Normals: NHANES III		Diagnosis: RESULTS APPEAR NORMAL	ATS criteria met	
UNCONFIRMED REPORT				
	PRED	MEAS1	MEAS2	MEAS3
FVC	1	3.69	2.94	80
FEV1	1	2.80	2.22	80
FEV1/FVC	%	76.0	75.5	99
FEV3/FVC	%	90.6	86.1	106
FEF2-12	1/s	5.21	4.10	79
FEF25-75%	1/s	2.54	1.76	69
FEF75-85%	1/s	0.66	0.56	85
PEF	1/min	375	313	83
FEF25%	1/s	5.70	4.67	82
FEF50%	1/s	3.44	2.31	67
FEF75%	1/s	1.09	0.65	60
FVC	1	3.11	3.11	3.26
FIV1	1	3.01	3.01	2.95
FIV1/FVC	%	96.7	96.7	90.4
PIF	1/s	4.78	4.78	5.01
PIF50%	1/s	4.75	4.75	4.98



Mild Obstruction

The FEV1/FVC% predicted is abnormal (79%), indicating obstruction. The severity of the obstruction is mild as judged by the FEV1, which is 62% of the predicted. Mild obstruction occurs gradually over many years.

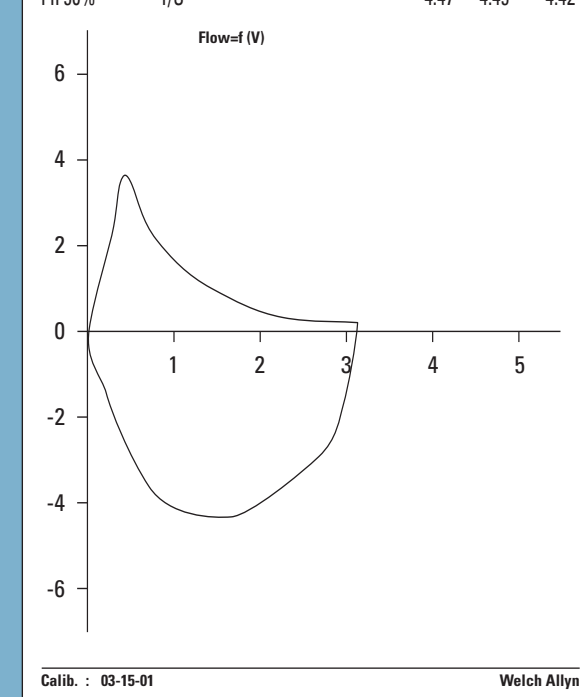
Pat-Name: EVANGELISTA-NORMAN		JAE C CHANG MD		
Pat-Number: 0258975912		06-05-01 21:57		
Age: 86 year	Height: 71 ins	Ethnic: C	Smoker: N	
Gender: M	Weight: 202 lbs			
Normals: NHANES III		Diagnosis: MILD OBSTRUCTION	ATS criteria met	
MAYBE POOR INITIAL EFFORT				
UNCONFIRMED REPORT				
	PRED	MEAS1	MEAS2	MEAS3
FVC	1	3.77	2.48	66
FEV1	1	2.85	1.49	62
FEV1/FVC	%	75.9	39.9	79
FEV3/FVC	%	88.3	90.1	102
FEF2-12	1/s	1.74	1.74	2.03
FEF25-75%	1/s	3.59	0.96	27
FEF75-85%	1/s	0.32	0.32	0.25
PEF	1/min	477	128	27
FEF25%	1/s	7.24	1.97	27
FEF50%	1/s	5.76	1.03	18
FEF75%	1/s	2.76	0.45	16
FVC	1	2.55	2.55	2.13
FIV1	1	1.39	1.39	1.20
FIV1/FVC	%	54.7	54.7	56.3
PIF	1/s	1.61	1.61	1.42
PIF50%	1/s	1.40	1.40	1.35



Moderate Obstruction

The FEV1/FVC% predicted is abnormal, indicating obstruction. The FEV1 % predictive is 63% indicating the obstruction is moderate in severity. Note the concave shape of the flow volume curve with low flows after the initial sharp peak flow.

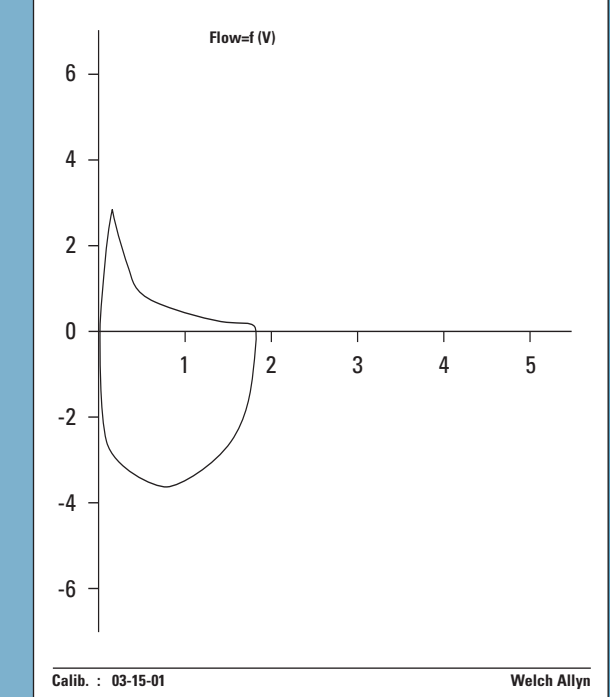
Pat-Name: HEART-JULIETTE		PETER J JALAU MD		
Pat-Number: 0258972445		03-15-01 16:12		
Age: 51 year	Height: 60 ins	Ethnic: C	Smoker: N	
Gender: F	Weight: 120 lbs			
Normals: NHANES III		Diagnosis: MODERATE OBSTRUCTION	ATS criteria not met	
MAYBE POOR INITIAL EFFORT				
UNCONFIRMED REPORT				
	PRED	MEAS1	MEAS2	MEAS3
FVC	1	3.69	3.87	105
FEV1	1	2.80	1.77	63
FEV1/FVC	%	76.0	45.6	60
FEV3/FVC	%	80.6	57.2	63
FEF2-12	1/s	5.21	2.85	55
FEF25-75%	1/s	2.54	0.24	9
FEF75-85%	1/s	0.66	1.40	211
PEF	1/min	375	194	52
FEF25%	1/s	5.70	2.67	47
FEF50%	1/s	3.44	0.32	9
FEF75%	1/s	1.09	1.86	170
FVC	1	3.85	3.17	3.35
FIV1	1	3.40	3.05	3.00
FIV1/FVC	%	88.3	96.1	89.8
PIF	1/s	4.70	4.62	4.43
PIF50%	1/s	4.47	4.45	4.42



Severe Obstruction

Severe obstruction with a low vital capacity. All of the parameters are abnormally low. The low FEV1/FVC% indicates obstruction, and the FEV1 of only 28% of normals shows that the obstruction is severe. A superimposed restriction may also be present since the FVC is abnormally low (46%).

Pat-Name: O'BRIAN-DAVID		JOHN P HEYWOOD MD		
Pat-Number: 0258974632		05-07-01 14:37		
Age: 56 year	Height: 66 ins	Ethnic: C	Smoker: N	
Gender: M	Weight: 149 lbs			
Normals: NHANES III		Diagnosis: SEVERE OBSTRUCTION	ATS criteria met (PRE)	
MAYBE AIR TRAPPING PRESENT				
MARKED IMPROVED				
UNCONFIRMED REPORT				
	PRED	MEAS1	%PRED	%CH
FVC	1	3.96	1.83	46
FEV1	1	3.14	0.89	28
FEV1/FVC	%	81.9	48.4	59
FEV3/FVC	%	94.2	81.8	87
FEF2-12	1/s	0.58	1.11	91
FEF25-75%	1/s	4.10	0.42	10
FEF75-85%	1/s	0.22	0.21	-5
PEF	1/min	478	157	33
FEF25%	1/s	7.35	0.89	12
FEF50%	1/s	5.40	0.48	9
FEF75%	1/s	2.62	0.26	10
FVC	1	2.11	2.69	28
FIV1	1	2.10	2.51	19
FIV1/FVC	%	89.5	93.2	-5
PIF	1/s	3.65	3.70	1
PIF50%	1/s	3.64	3.65	0



Severe Restriction

FEV1/FVC% prediction of 101% is normal, so obstruction does not exist. The FVC however is only 41% of normal, indicating severe restriction. FEV1 is also decreased 44% but to a lesser degree than the FVC in restrictive disorders. Note the sharp peak and rapid, straight, and steep decline of the flow volume curve.

Pat-Name: MEYRS-STEVEN		DENISE R MADRICK MD		
Pat-Number: 0258970824		07-22-01 18:38		
Age: 81 year	Height: 74 ins	Ethnic: C	Smoker: N	
Gender: M	Weight: 201 lbs			
Normals: NHANES III		Diagnosis: SEVERE RESTRICTION	ATS criteria met	
	PRED	MEAS1	MEAS2	MEAS3
FVC	1	4.89	2.01	41
FEV1	1	3.62	1.58	44
FEV1/FVC	%	78.2	78.8	101
FEV3/FVC	%	88.6	99.0	112
FEF2-12	1/s	6.27	2.46	39
FEF25-75%	1/s	3.43	1.53	45
FEF75-85%	1/s	0.31	0.34	110
PEF	1/min	531	171	32
FEF25%	1/s	7.77	2.71	35
FEF50%	1/s	4.48	2.43	54
FEF75%	1/s	1.48	0.51	35
FVC	1	2.08	2.08	2.45
FIV1	1	0.55	0.55	1.94
FIV1/FVC	%	26.3	26.3	79.1
PIF	1/s	1.89	1.89	2.85
PIF50%	1/s	1.82	1.82	2.84

