Guidelines for PFT interpretations

Reproducibility and technique of the patient—there will be comments by the technicians as to effort of the patient and reproducibility is judged by having three maneuvers within 5% of each other.

Spirometry: Consider shape of the curve first (normal, scooped, peaked, blunted)

Obstructive lung diseased based on (one or more of these)

- a decreased FEV_1
- a decreased FEV_1/FVC ratio
- a decreased FEF_{25-75}
- scooping of the flow volume loop

very mild	FEV_1 >80 and an FEV1/FVC ratio <80 or FEF_{25-75} <65 or scooping of FV loop
mild	FEV_1 60-80
moderate	FEV_1 40-60
severe	FEV_1 <40

FEV_1 and FVC are symmetrically decreased with normal FEV_1/FVC ratio, can't r/o restrictive lung disease

Response to bronchodilator: significant if FEV_1 improved by >12-15% or FEF_{25-75} by >25%

Compare these values with the most recent study (give values during last study).

Lung volumes: Remember to consider the presence of obstructive defects before assuming that a low TLC implies restrictive lung disease.

TLC values	Normal	>80	RV/TLC ratio: <25 is considered normal
	Mild	70-80	
	Moderate	60-70	
	Severe	<60	

DL/VA (corrected for hemoglobin): normal range ~80-120

Degree of severity of reduction:

Mild	60-75%
Moderate	40-60%
Severe	<40%

Cold air challenge: 10% decrease in FEV1 is positive

Exercise challenge: 10% decrease in FEV1 is positive

Walk test: see oxygen saturation levels below.

Arterial blood gas values: Comment on the FiO2, pH, HCO3 as well as the values below

PaO_2 values (mmHg)	**$PaCO_2$ values (mmHg)**	**A-a gradient**	**O_2 saturation (%)**
85-100 normal	35-45 normal	<25 normal	97-100 normal
70-85 mildly reduced	<35 reduced	25-35 mildly widened	92-96 mildly reduced
50-70 moderately	>45 elevated	25-45 moderately	86-91 moderately
<50 severely			<85 severely

Maximal inspiratory and expiratory pressures:

normal adult value	100 cm H_20 (males)	80 cm H_20 (females)
normal 8 year old value	50 cm H_20	