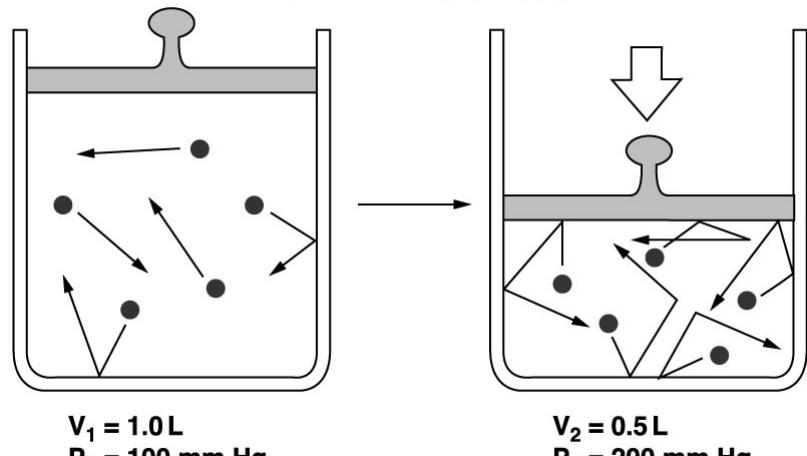
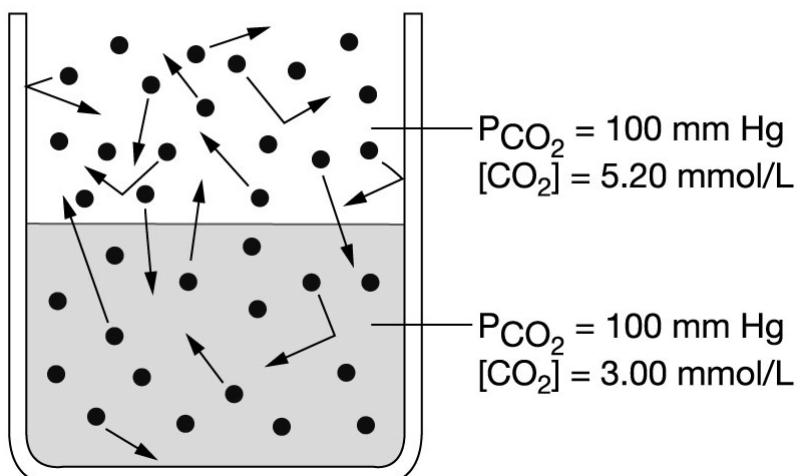


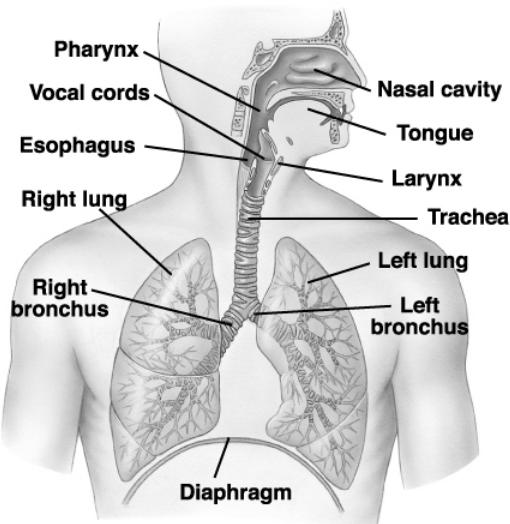
$$\text{Boyle's Law: } P_1V_1 = P_2V_2$$



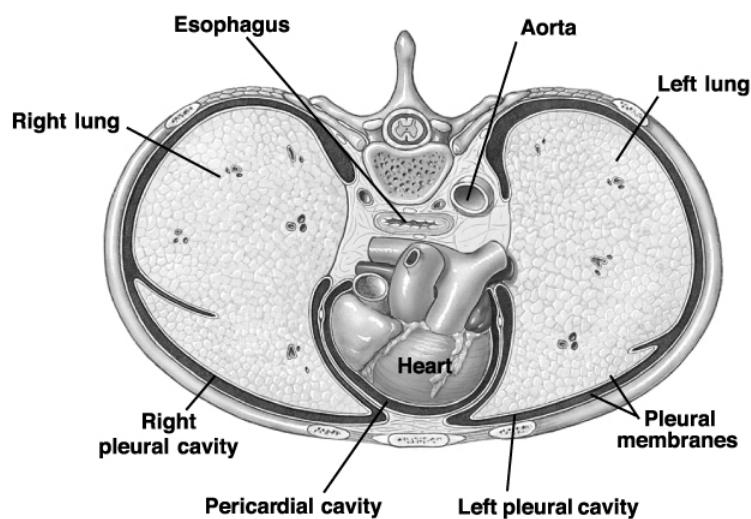
When CO_2 is at equilibrium at the same partial pressure, more CO_2 dissolves.

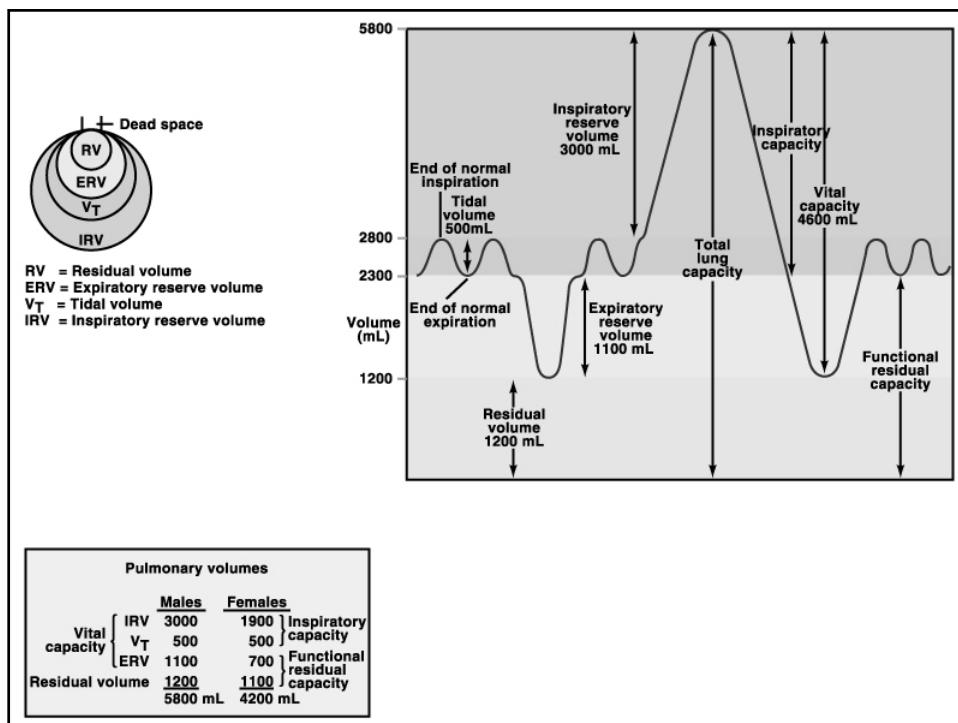
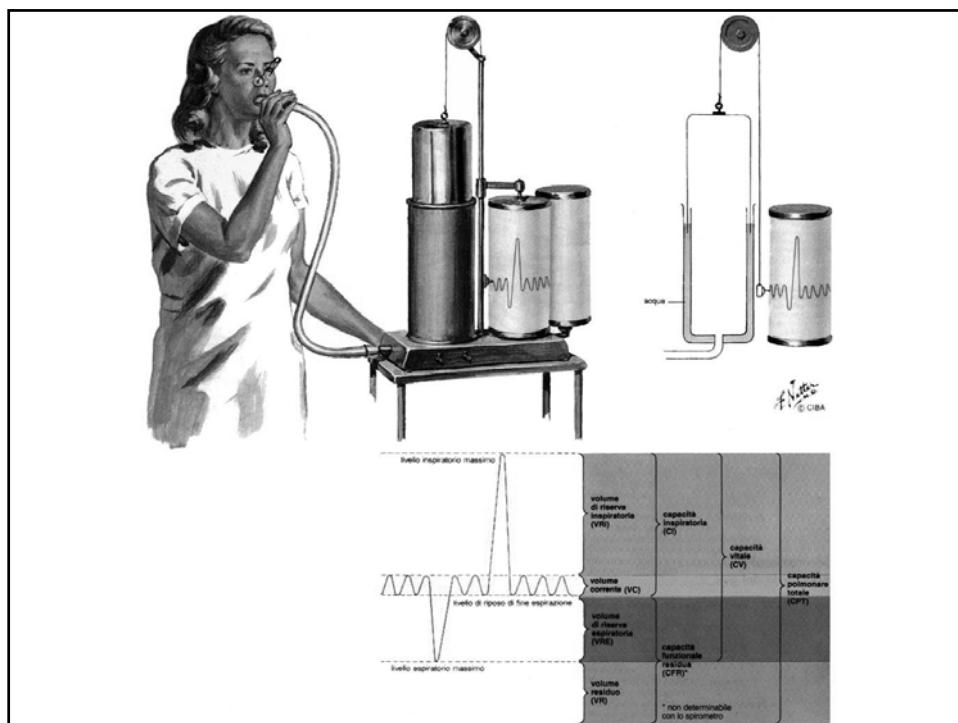


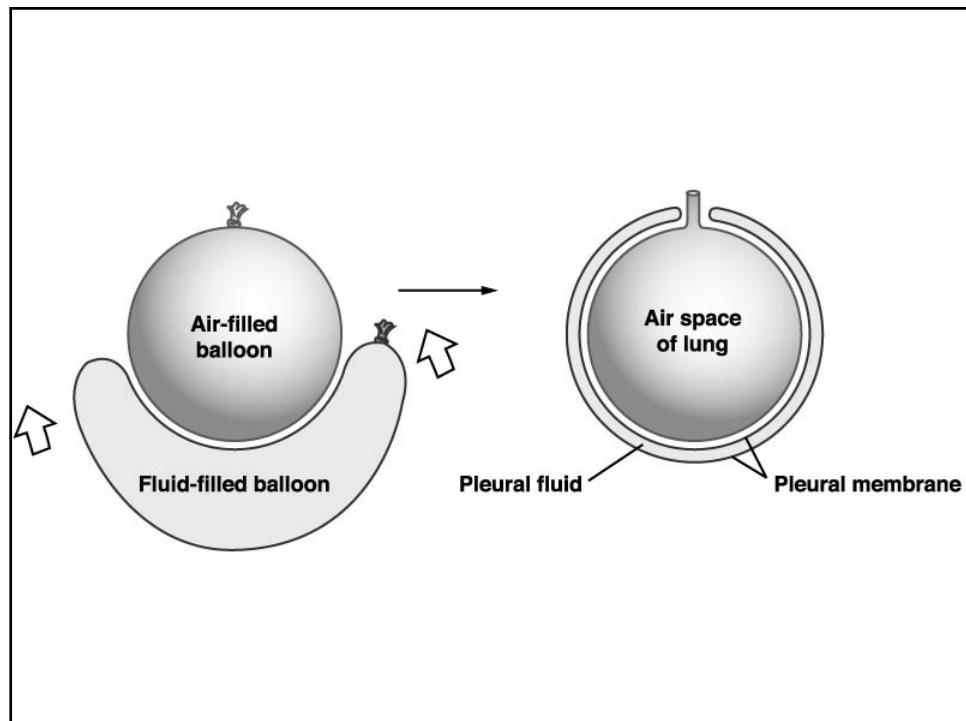
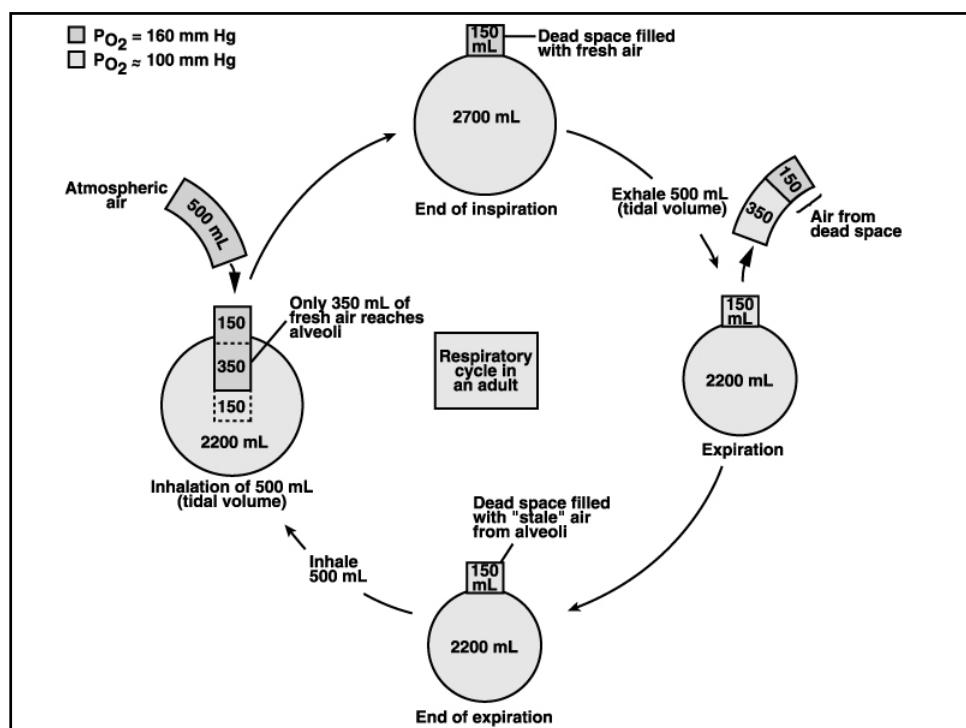
The respiratory system
The respiratory system consists of the upper respiratory system (mouth, nasal cavity, pharynx, larynx) and the lower respiratory system (trachea, bronchi, lungs). The lower respiratory system is enclosed in the thorax, bounded by the ribs, spine, and diaphragm.



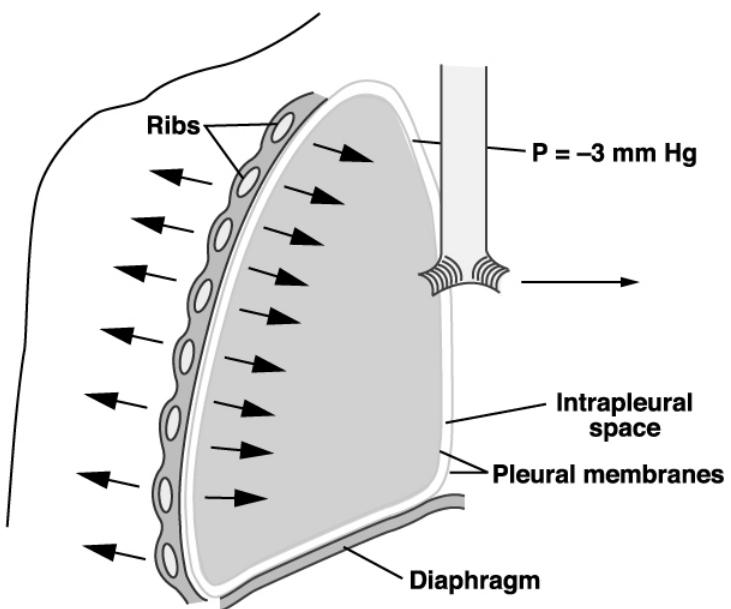
Sectional view of chest
Each lung is enclosed in two pleural membranes. The pleural fluid and space are much smaller than illustrated. The esophagus and aorta pass through the thorax between the pleural sacs.



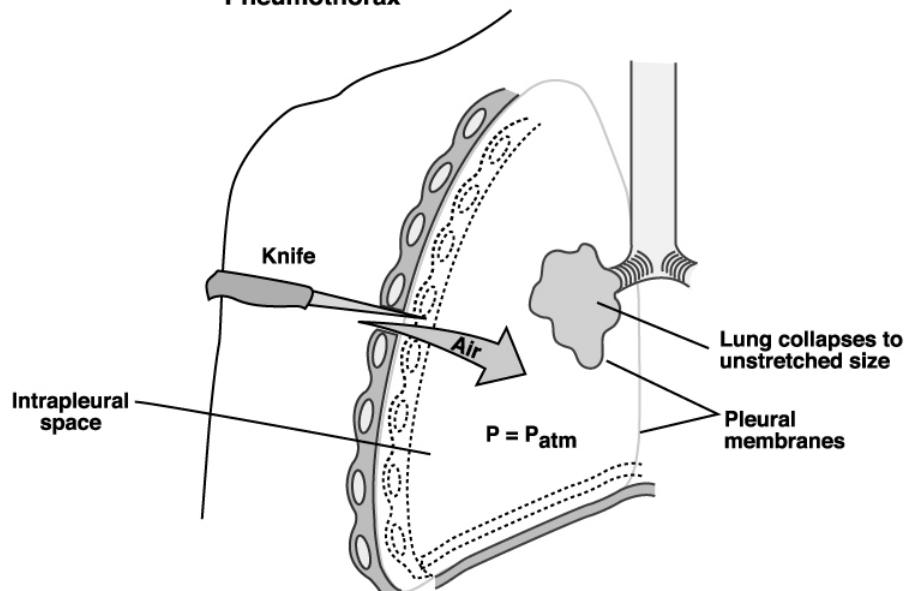


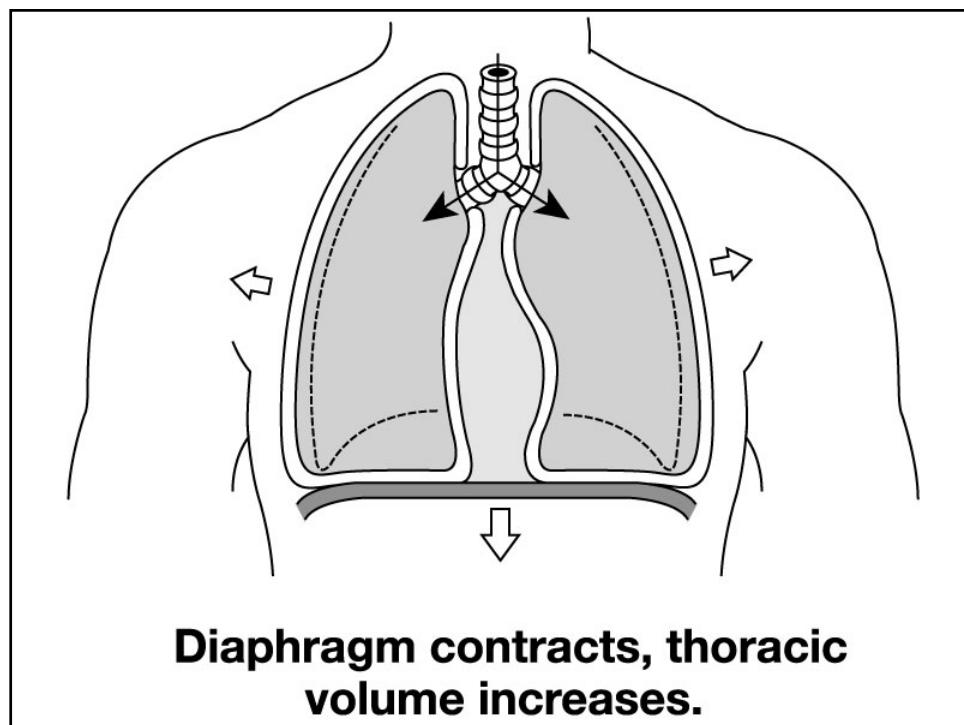
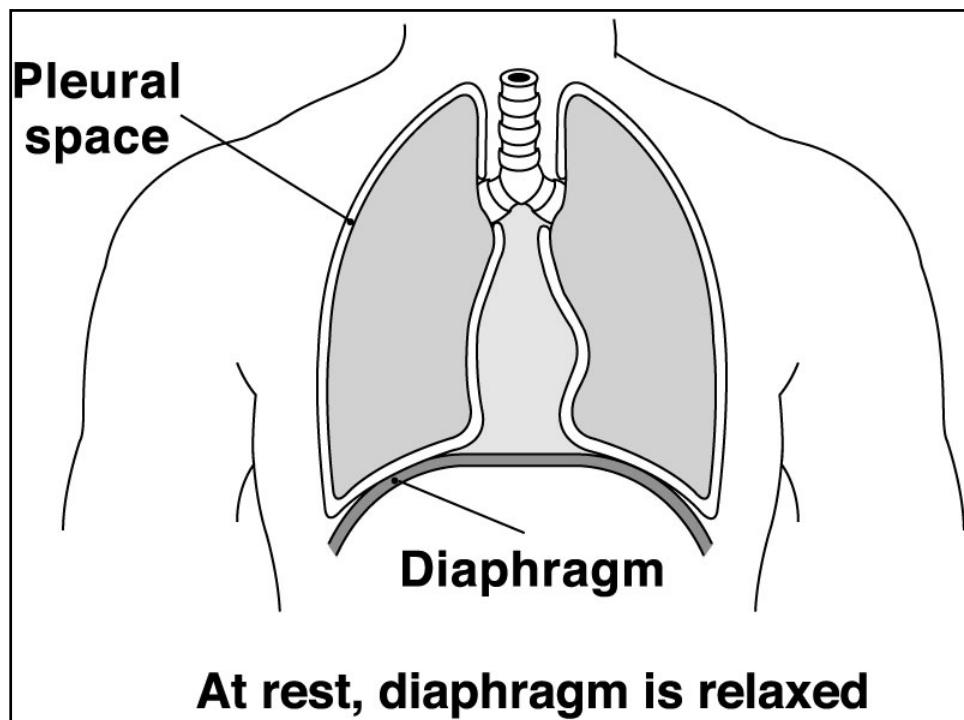


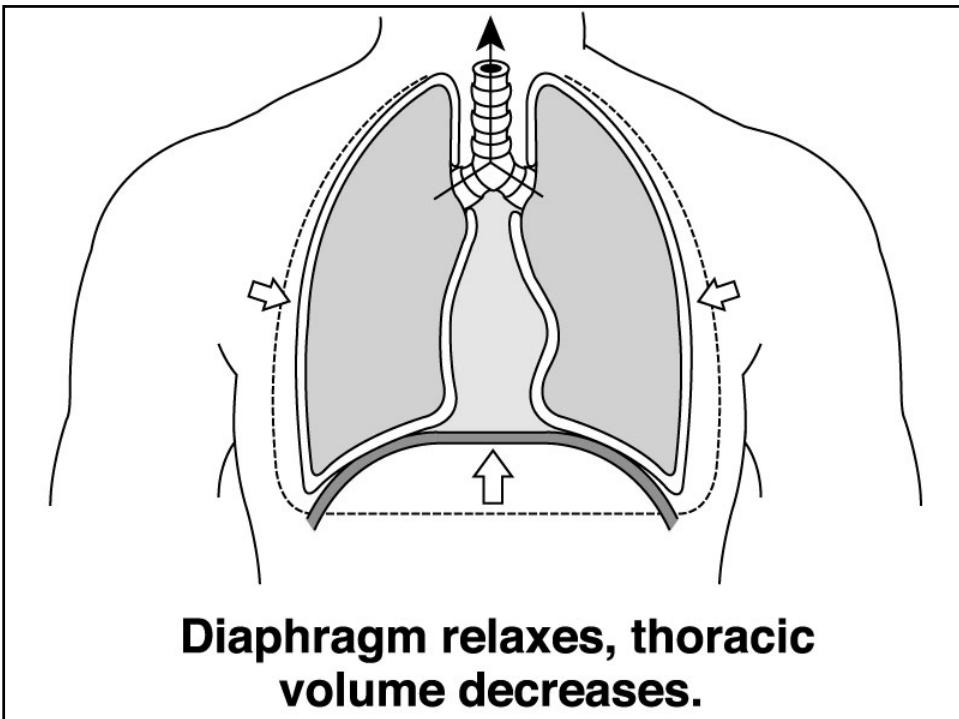
Normal lung at rest



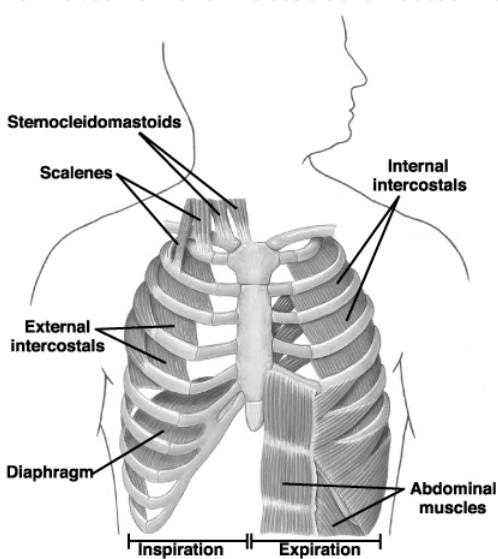
Pneumothorax

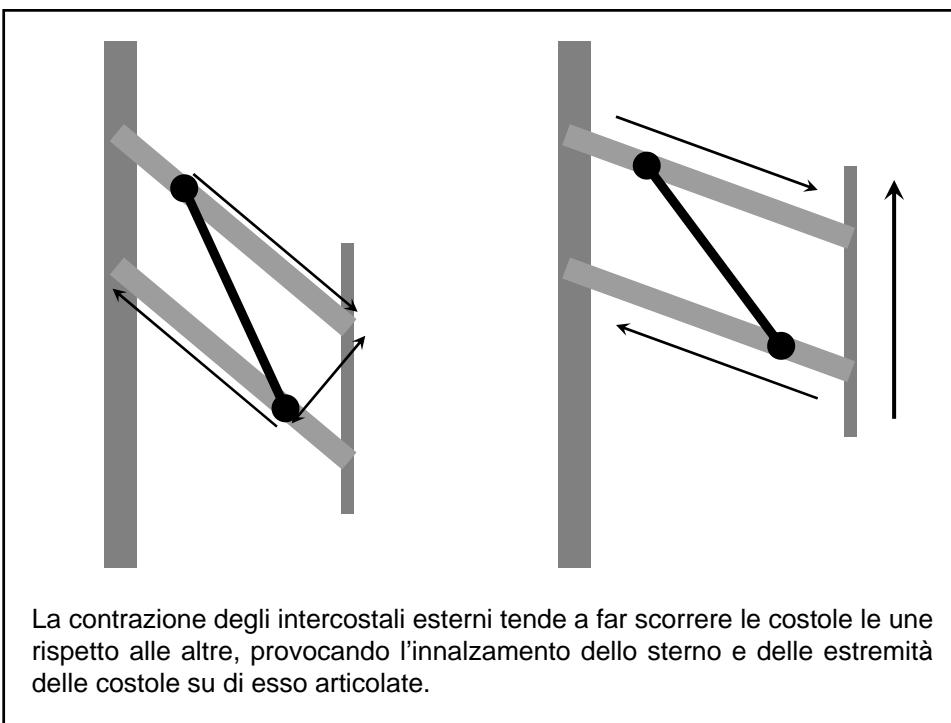
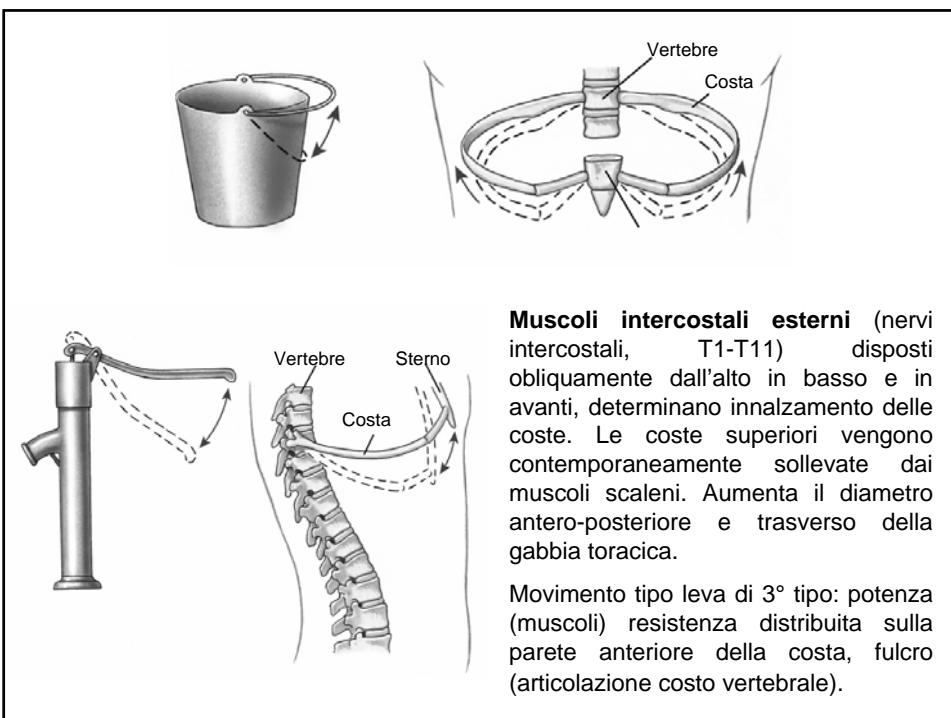


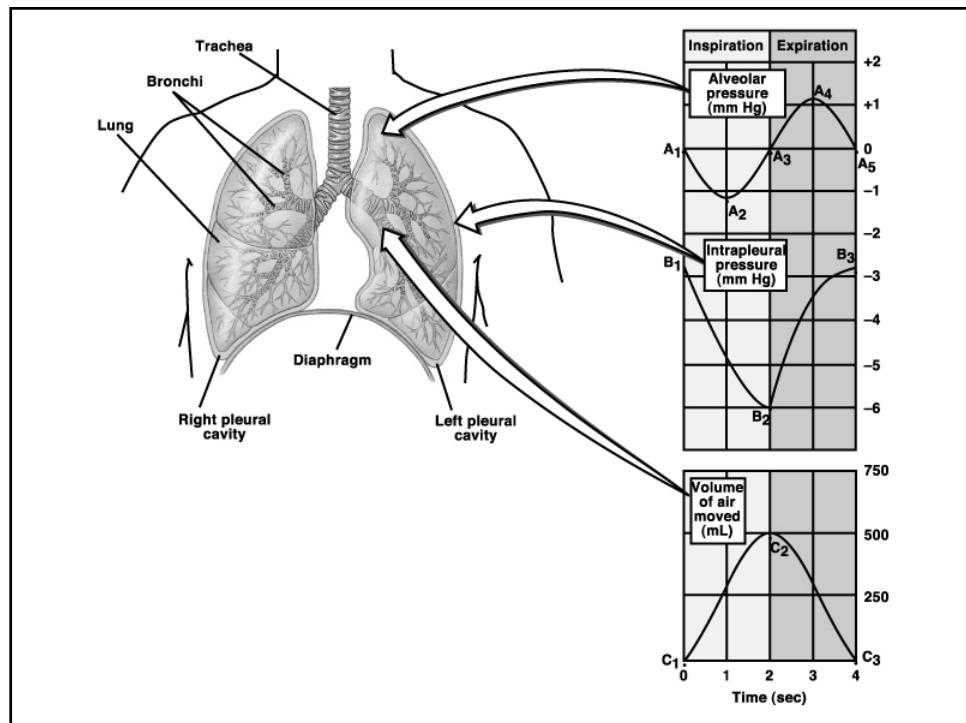
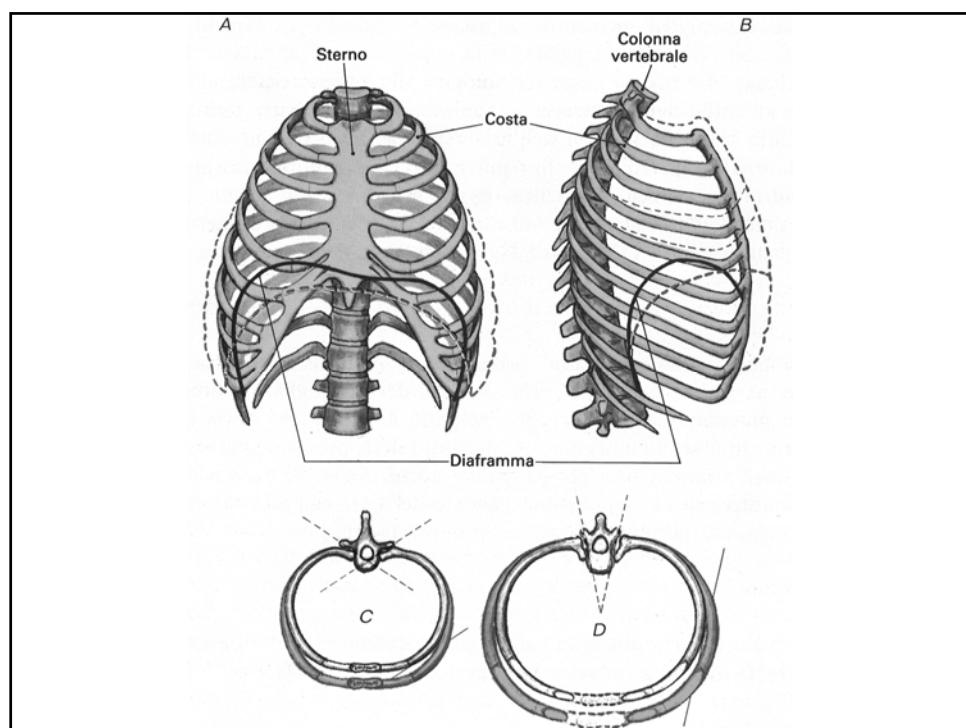


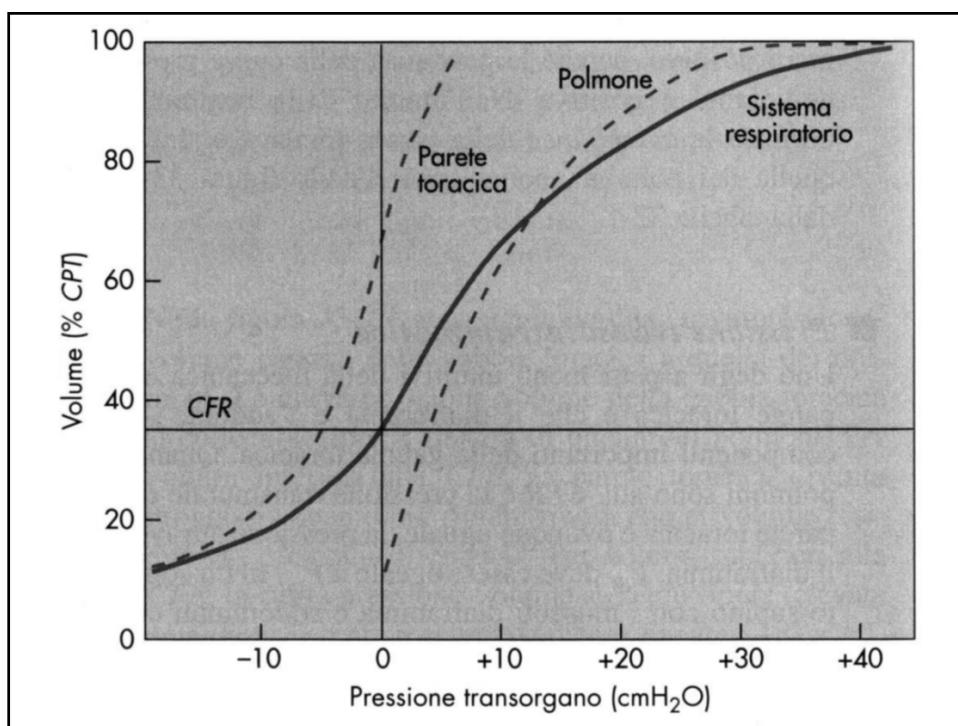
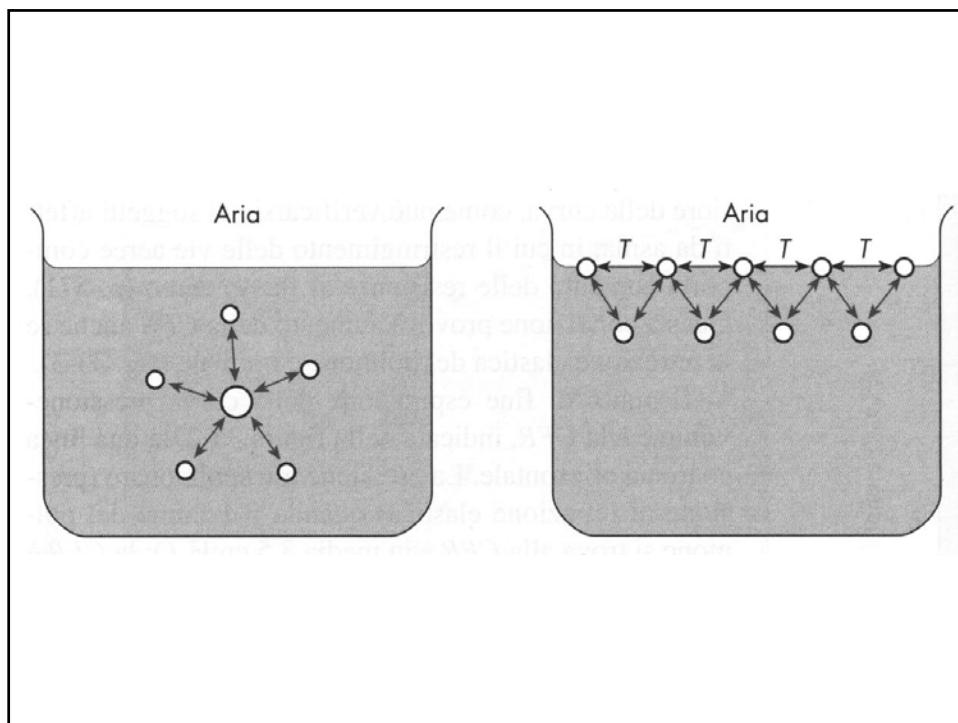


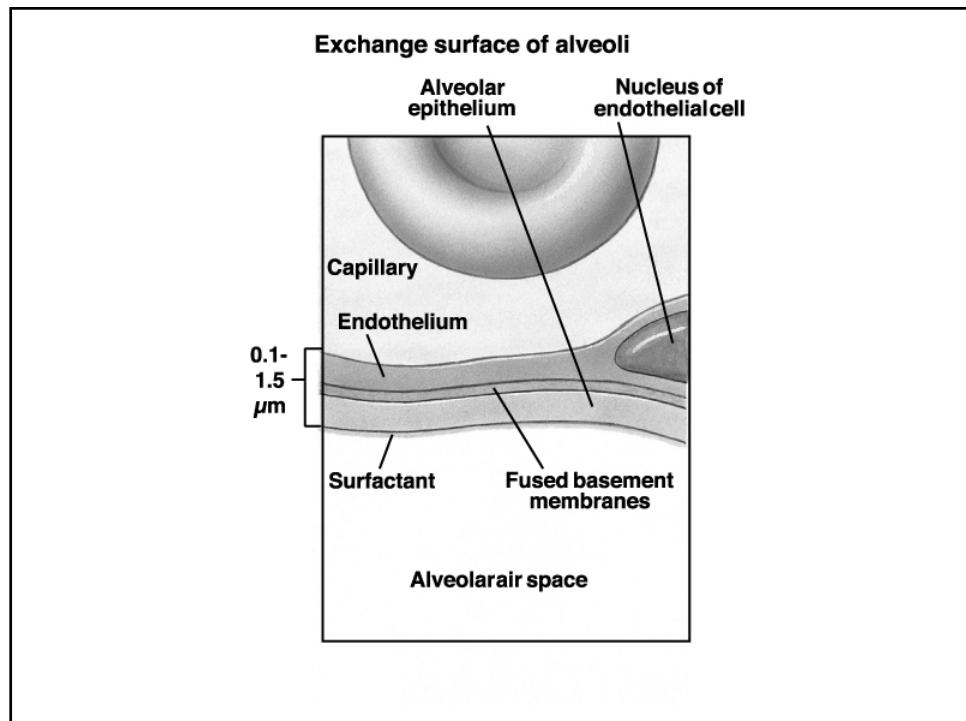
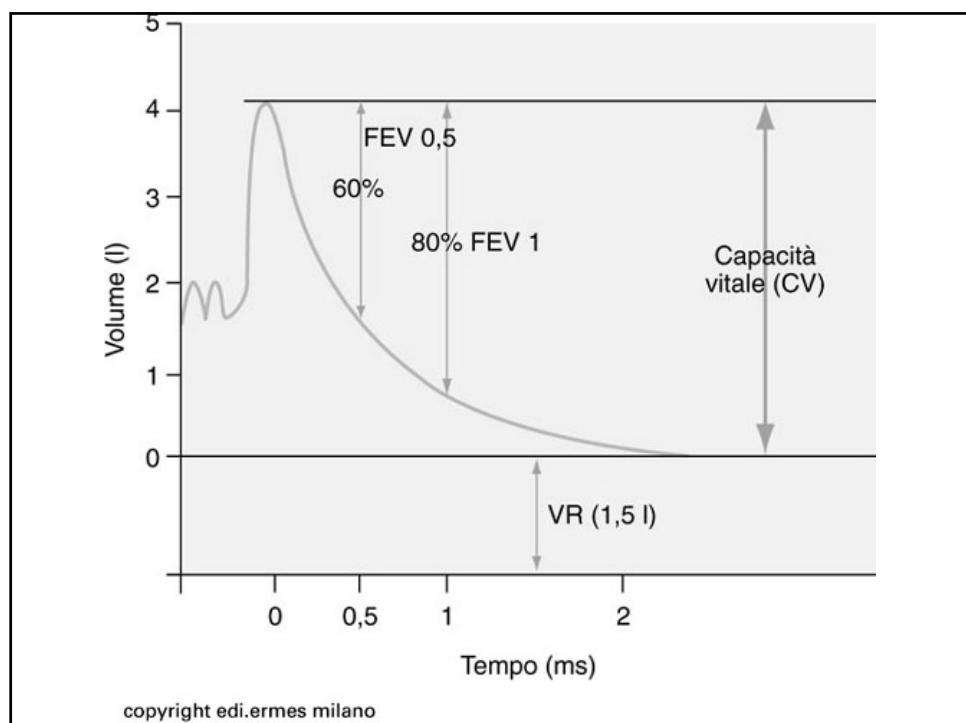
Muscles used for ventilation
 The muscles of inspiration include the diaphragm, external intercostals, sternocleidomastoids, and scalenes. The muscles of expiration include the internal intercostals and the abdominals.





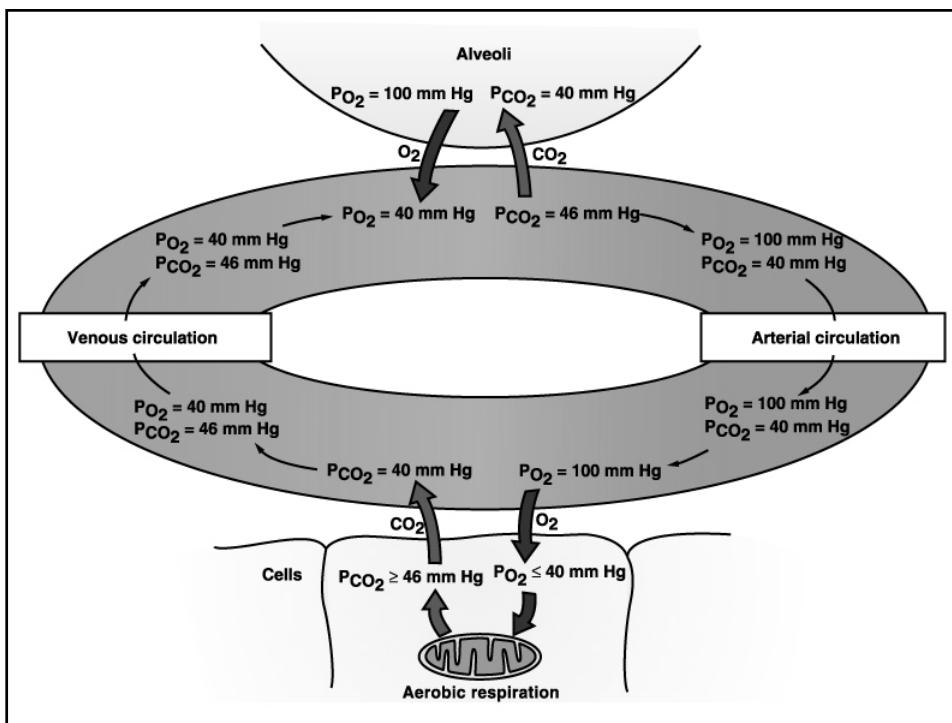


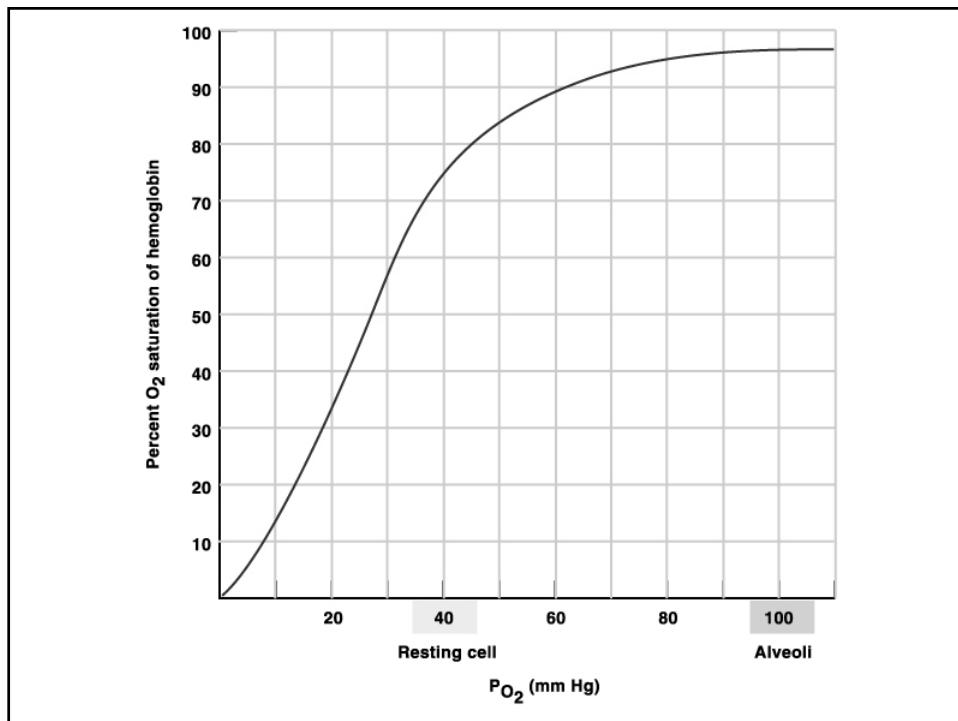
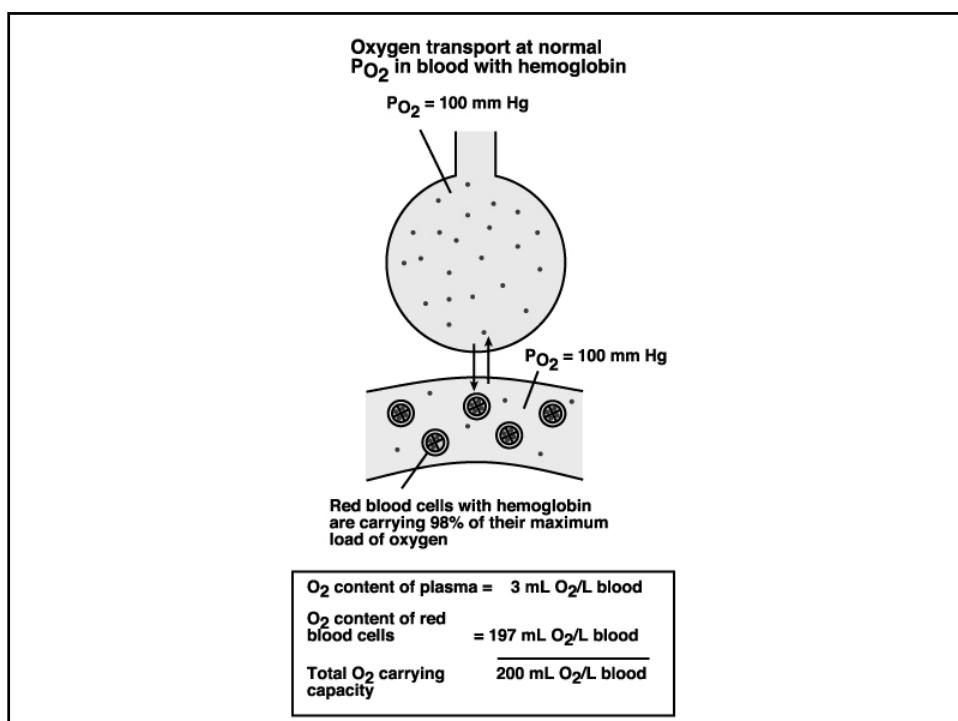




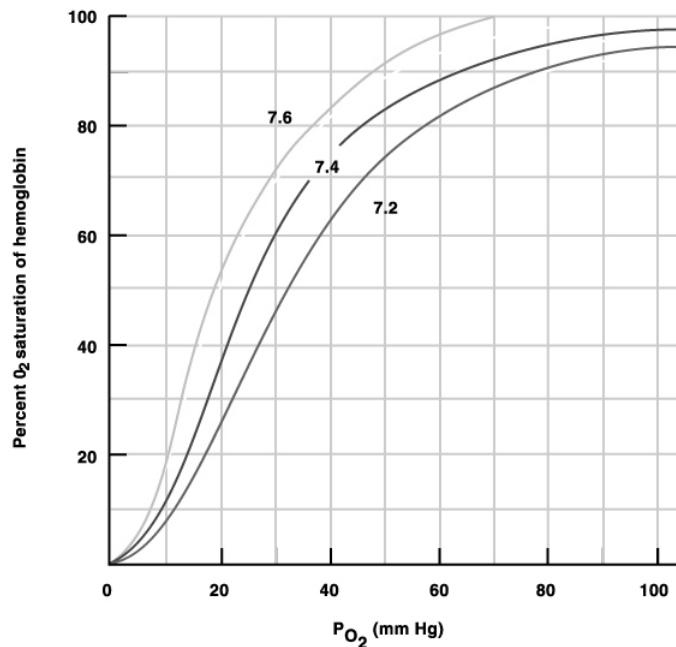
Gas	Aria atmosferica		Aria alveolare		Sangue arterioso	Sangue venoso
	%	mm Hg	%	mm Hg	mm Hg	mmHg
O ₂	20,94	159,1	14,2	101	100	40
CO ₂	0,04	0,3	5,5	39	40	46
N ₂	79,02	600,6	80,3	573	573	573
Totale	100,00	760,0	100,0	713	713	659

5. Pressioni parziali dei gas respiratori.





Effect of pH



Effect of temperature

