RESPIRATORY FUNCTIONS OF BLOOD

Factor	Respiratory Pathway	Respiratory Response	Response to Change	Result
↑ pCO_2 in blood	↑ H^+ sends signal → Respiratory Center in Medulla → stimulates respiratory muscles	↑ RR	↑ Exhalation of CO_2	↓ pCO_2 to normal
↑ H^+ in blood (Respiratory Acidosis)	Peripheral chemoreceptors signal → Respiratory Center in Medulla → stimulates respiratory muscles	↑ RR	↑ Exhalation of CO_2	↓ pCO_2 to normal
↑ H^+ in blood (Metabolic Acidosis)	Peripheral chemoreceptors signal → Respiratory Center in Medulla → stimulates respiratory muscles	↑ RR	↑ Exhalation of CO_2	↓ pCO_2 to normal to compensate *until source of acidosis is corrected*
↓ O_2 in blood	Peripheral chemoreceptors signal → Respiratory Center in Medulla → stimulates respiratory muscles	↑ RR	↑ Inhalation of O_2	↑ Inhalation of O_2 in blood