ACID BASE BALANCE

Tissues → Plasma → RBC → Dissolved

CO₂ → H₂CO₃ → H⁺ + HCO₃⁻ (buffered by plasma buffers)

R-NH₂ + O⁻ + H⁺ → H₂O (slow)

HCO₃⁻ → H⁺ + Cl⁻ (buffered by plasma buffers)

K⁺ + Cl⁻ → O₂

DIC + H⁺ → H₂CO₃ → H⁺ + HCO₃⁻ (carbonic anhydrase)

H⁺ → FeO₂

pKa = 6.7

FeO₂ → H⁺ buffered

H⁺ + HbO₂ → H⁺ + Hb + HN-CO₂⁻ (pKa = 7.9)

H₂CO₃ → Na⁺ + Cl⁻ + H₂O

O₂ → Hb