

PCT:
 Absorbs: H_2O , Na^+ , Cl^- , HCO_3^- , K^+ , amino acids, glucose
 Secretes: H^+ (for HCO_3^- recovery), organics (in exchange for Cl^-)
 Diuretic: Acetazolamide (carbonic anhydrase inhibitor)

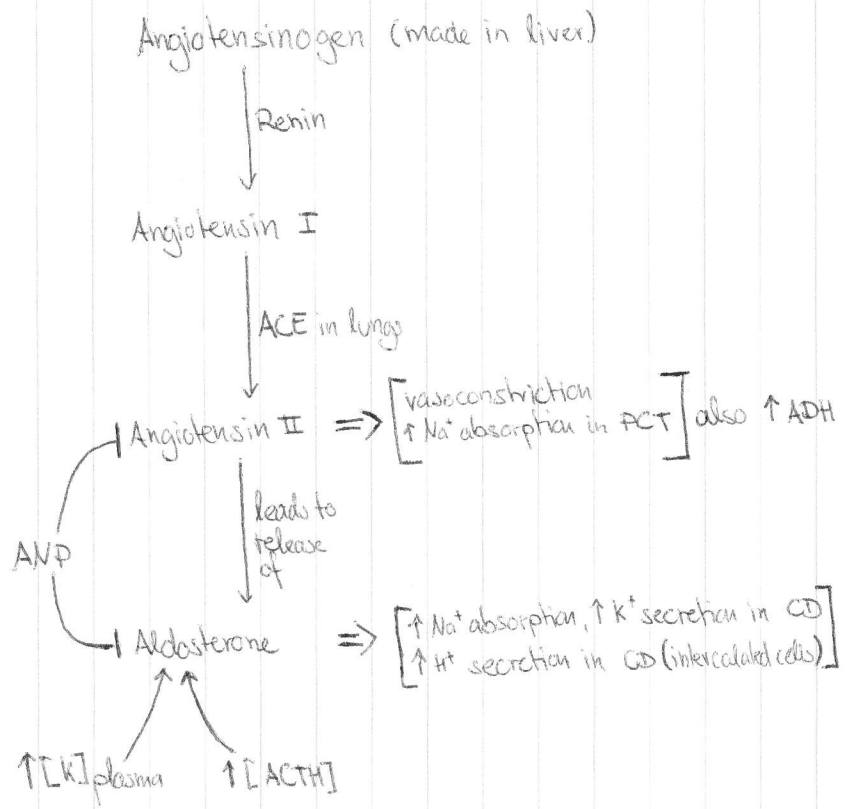
DCT:
 Absorbs: Na^+ , Cl^- , Ca^{++} , HCO_3^-
 Diuretic: HCTZ (NaCl absorption inhibited)

DTH:
 permeable to H_2O

TALH:
 Absorbs: Na^+ , Cl^- (increased by ADH)
 K^+ , Ca^{++} , Mg^{++}
 Diuretics: Bumetanide, Furosemide (= Lasix)
 $NaCl$ ~~absorption~~ inhibited

TAL
 permeable to $NaCl$, urea

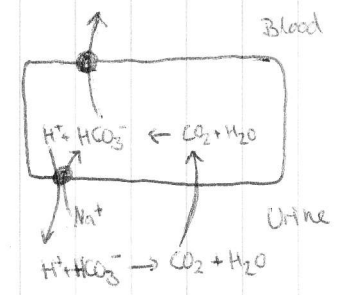
CD:
 absorbs: H_2O (with ADH), urea (with ADH)
 Principle cells secrete and/or absorb K^+ / Na^+ depending on Aldosterone, pH, ANP
 Intercalated cells secrete and/or absorb H^+ / HCO_3^- depending on Aldosterone
 Diuretic: Amiloride (inhibits Na^+ absorption)



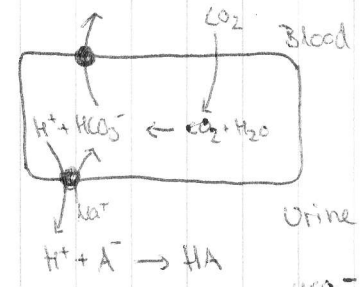
	acidosis	alkalosis
Respiratory	↓ pH ↑ [HCO ₃ ⁻]	↑ pH ↓ [HCO ₃ ⁻]
metabolic	↓ pH ↓ [HCO ₃ ⁻]	↑ pH ↑ [HCO ₃ ⁻]

Sources of bicarbonate: (in PCT)

Recycling:



De Novo I:



De Novo II:

