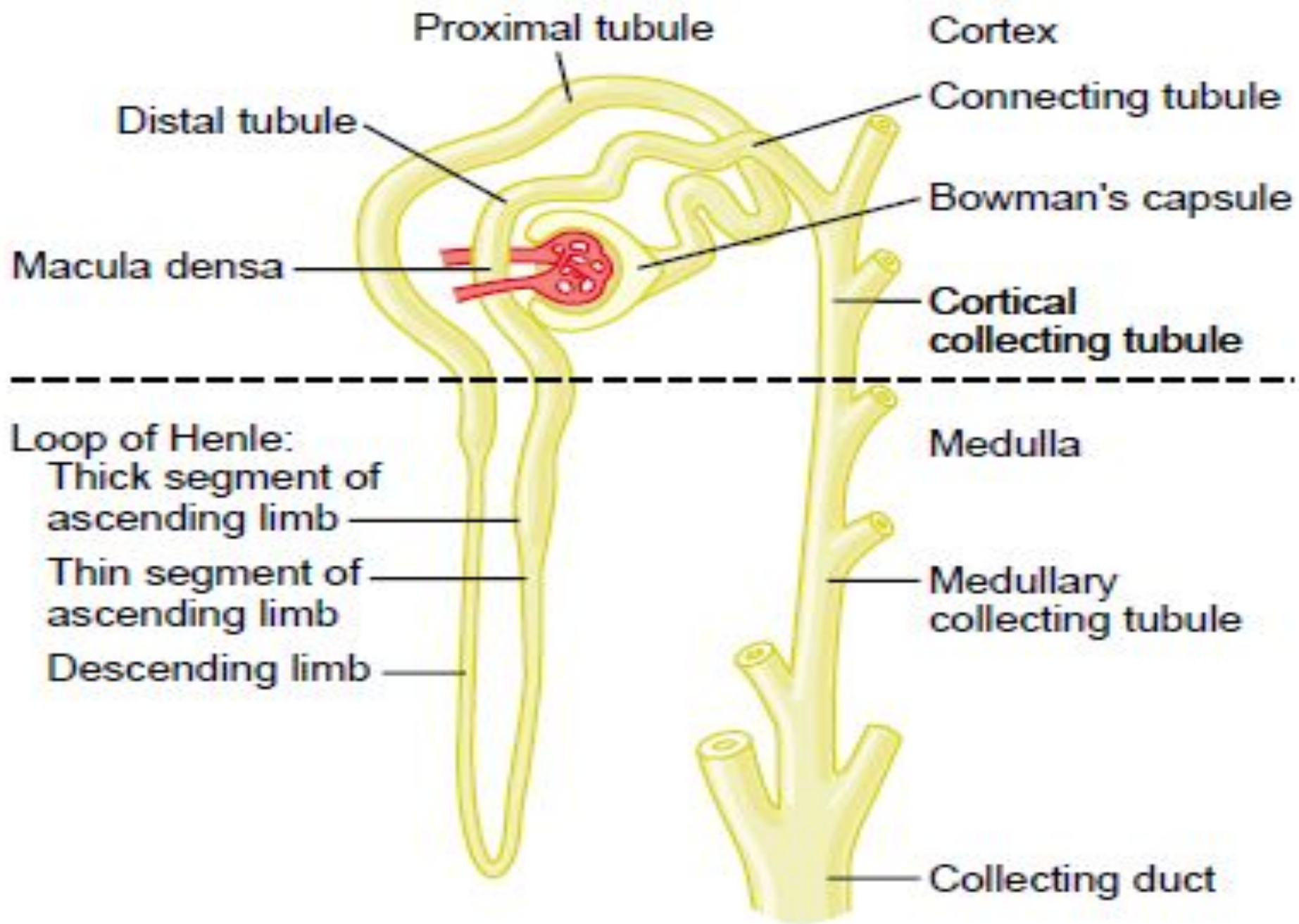
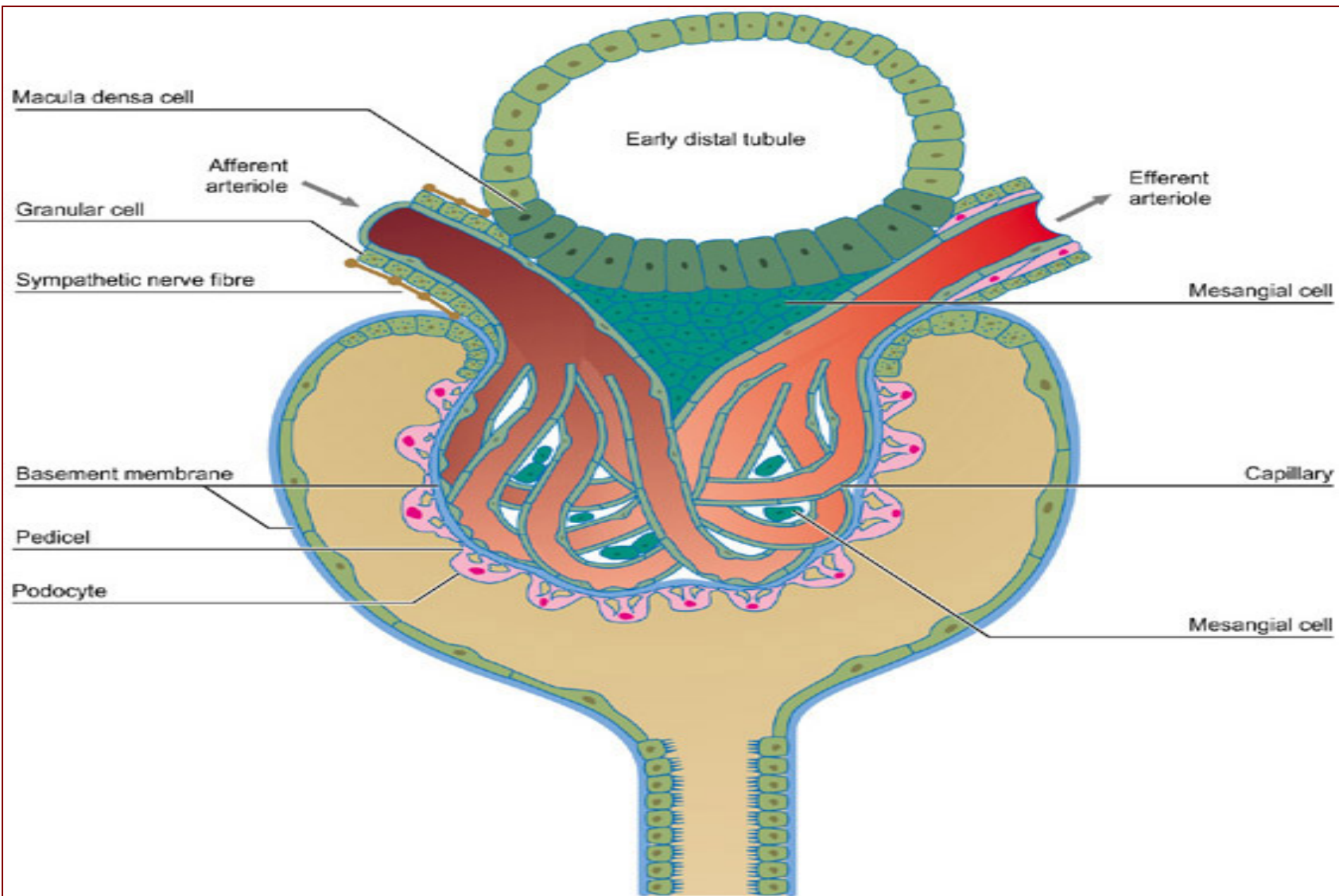


JG apparatus

- Structure
- Juxtaglomerular cells
- Macula densa cells
- Lacis cells





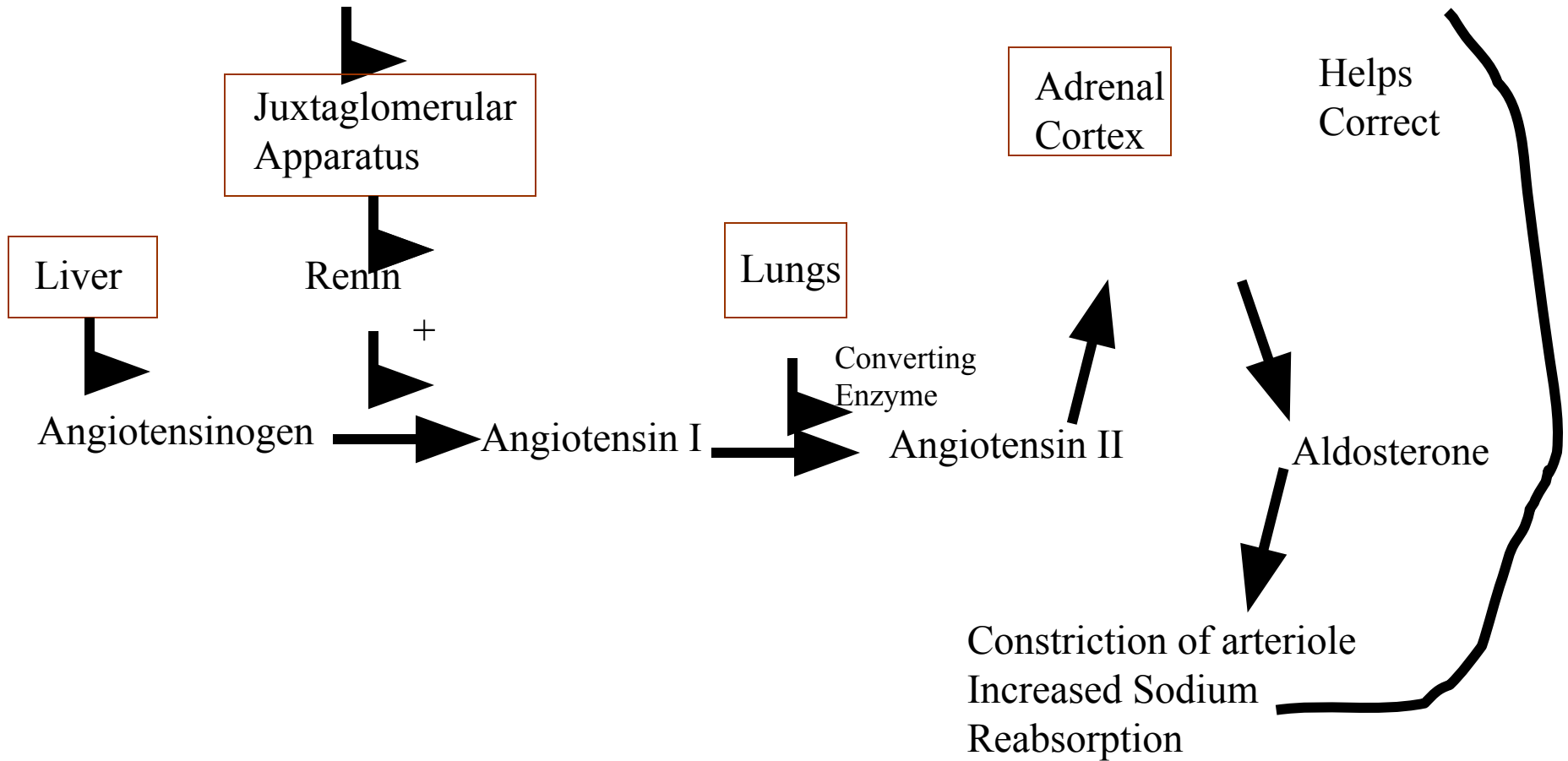
- Juxta glomerular cells ----- i) Renin
 - Renin Angiotensin mechanism
 - ii) Erythropoietin
- Macula densa ---- Act as a sensor.
 - Tubulo- feedback mechanism.
 - Secretion of thromboxane A2.
- Lacis cells ----- Secretion of PGs.

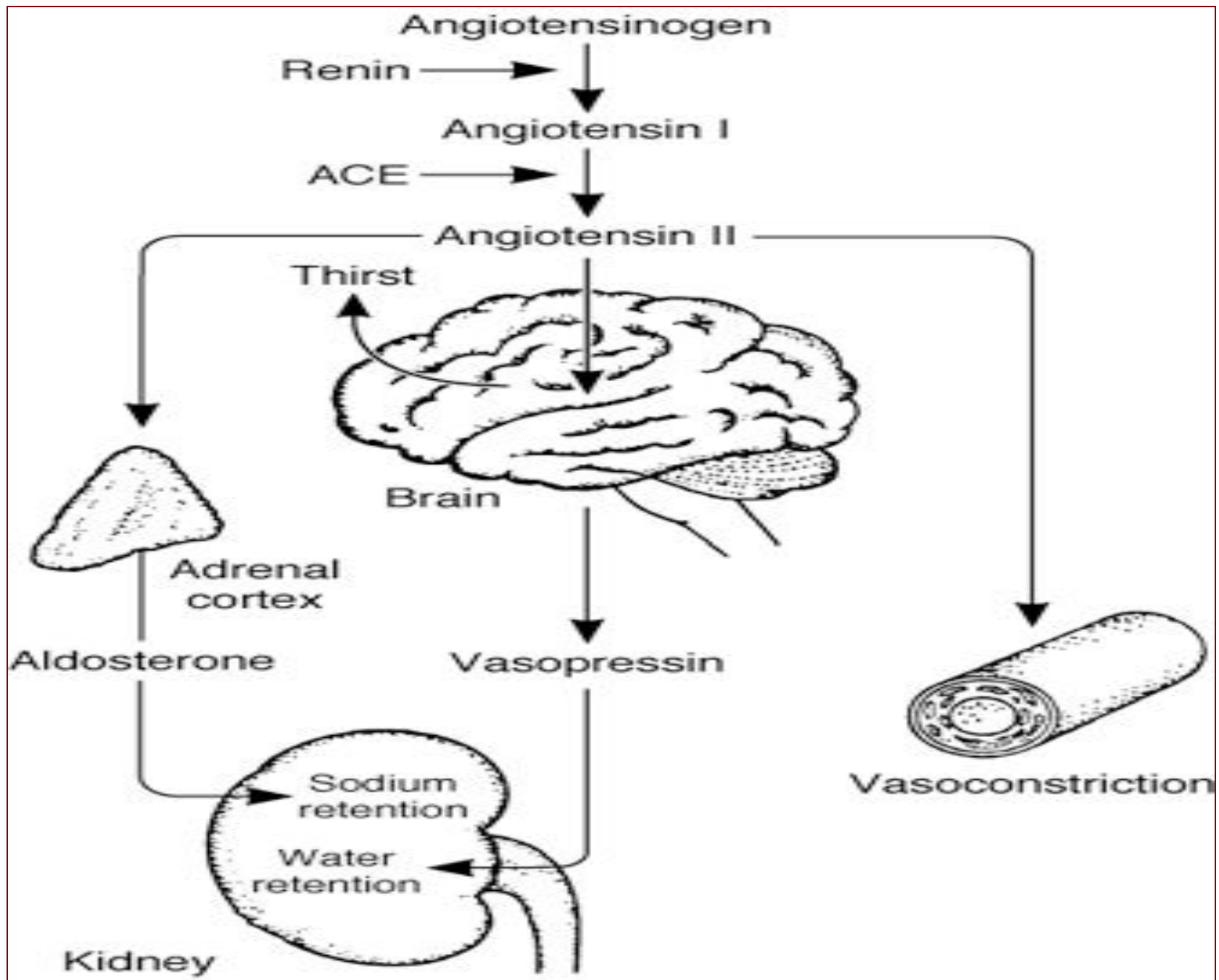
Stimuli and secretion of JG complex

- **Renin** –
- Stimuli for renin release
 1. Decrease in blood pressure
 2. Reduction in ECF volume
 3. Decreased load of NaCl at macula densa
- **Erythropoietin** – main stimulant is hypoxia

Renin-Angiotensin-Aldosterone System

Fall in NaCl, ↓ extracellular fluid volume, ↓ arterial blood pressure





Function of renin angiotensin – aldosterone system

- Regulation of BP and ECF volume
- Autoregulation of GFR
- Autoregulation of renal blood flow

Tubuloglomerular feedback

- Regulation of RBF & GFR

- **Secretion of other substances**

- Lacis cells ----- PGs , cytokines.

- Macula densa cells ----- Thromboxane A2

Functions of JG complex

- Regulation of BP
- Regulation of ECF volume
- Auto regulation of GFR
- Auto regulation of renal blood flow
- Regulation of erythropoiesis