

Renální ischemie (Goldblattův pokus)

Systemová hypertenze

- Primární 90%
- Sekundární 10%
 - Renální
 - renoparenchymatózní
 - renovaskulární
 - Endokrinní
 - feochromocytom, hyperaldosteronismus, léky,
 - Koarktace aorty
 - Nitrolební hypertenze

Renální hypertenze

- Onemocnění postihující obě ledviny (chronická glomerulonefritida)
- Onemocnění postihující jednu ledvinu (stenóza renální arterie)
- Kongenitální syndromy (Liddle's syndrom – hypokalémie, hypertenze, met. alkalóza)

The renin-angiotensin mechanism

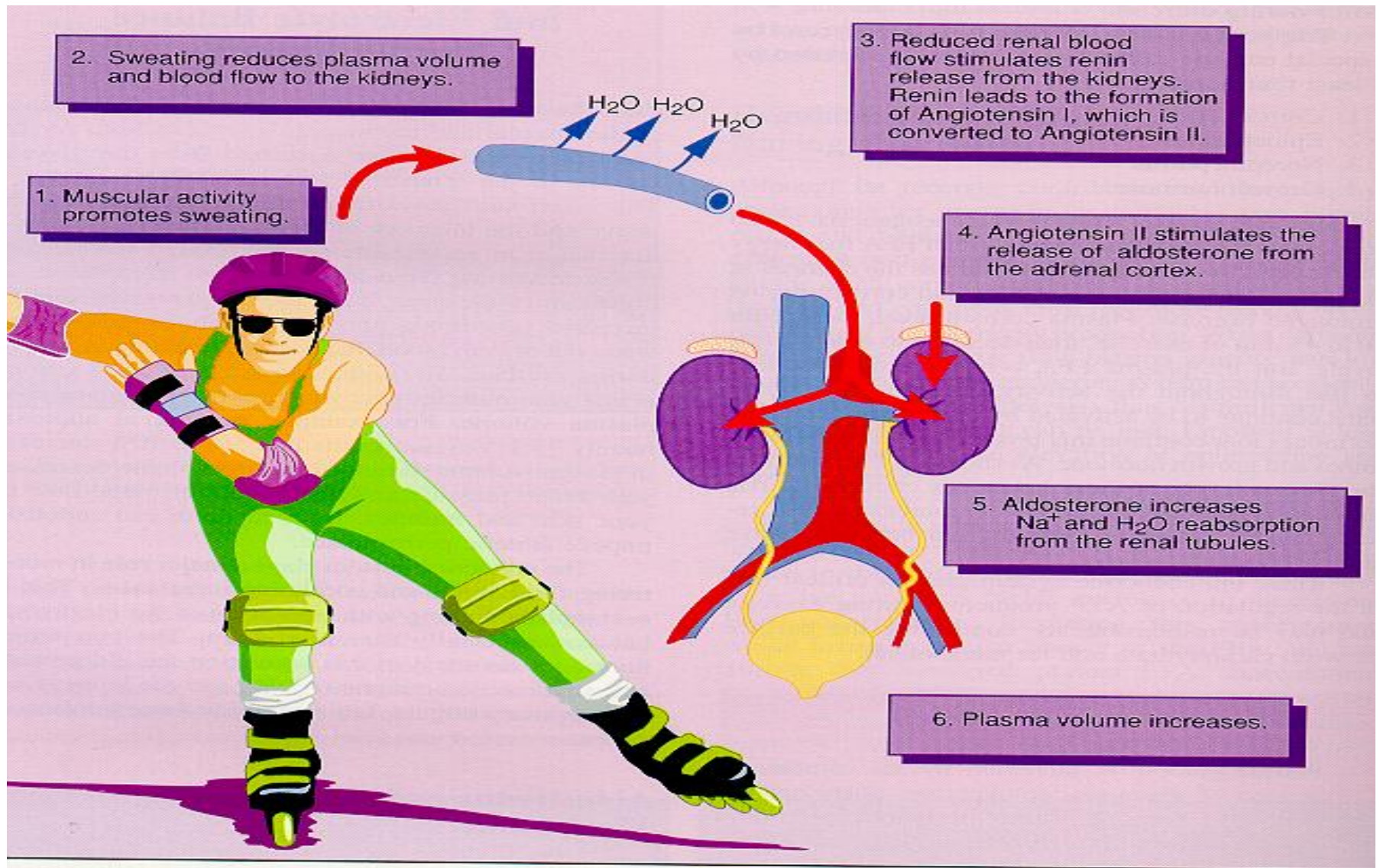


Figure 6.12 The renin-angiotensin mechanism.

The Juxtaglomerular Apparatus Secreting Renin

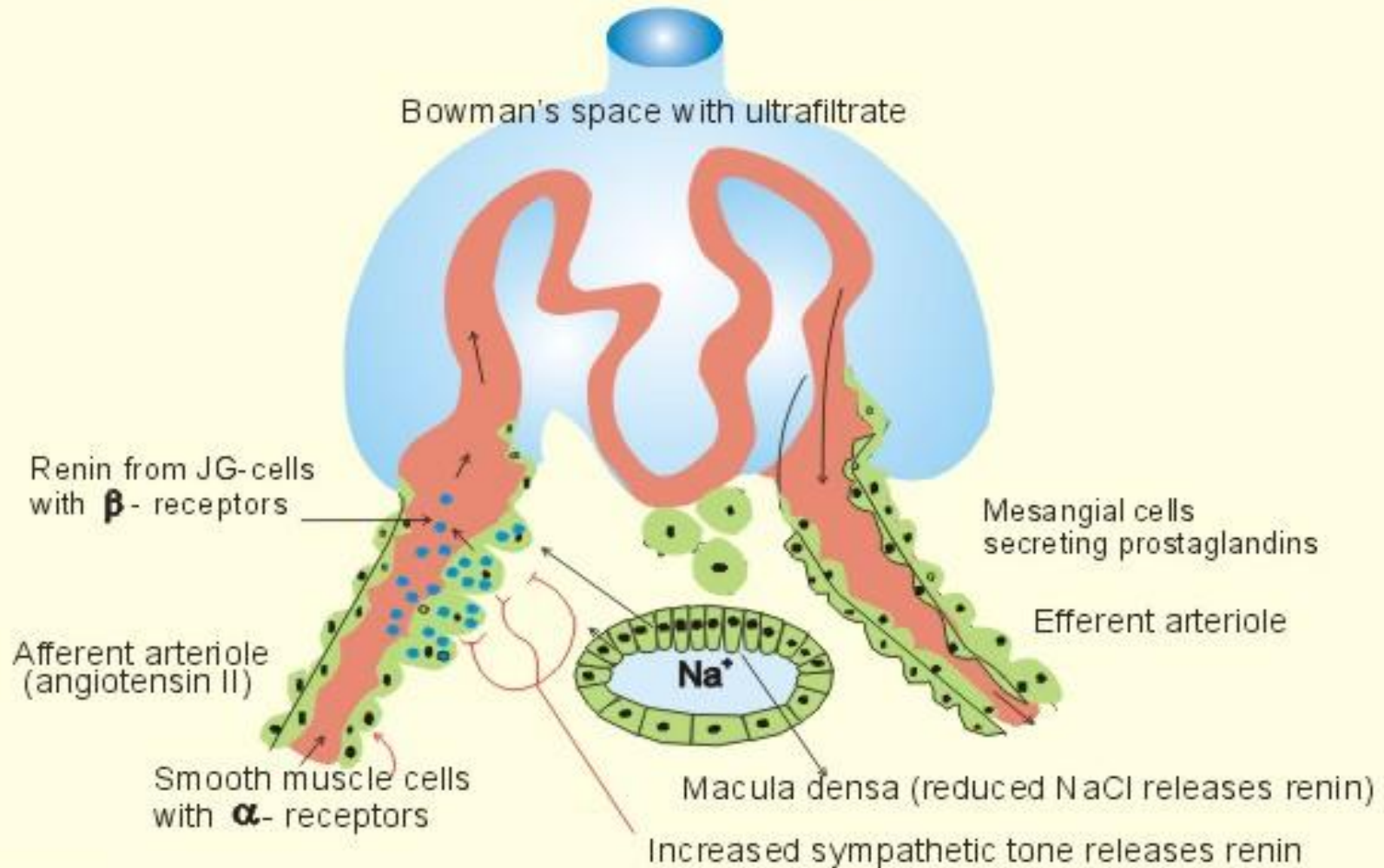


Fig.25-16

The Renin-angiotensin-aldosterone Cascade

Reduced blood volume (ECV) or pressure decrease NaCl delivery to macula densa
Increased sympathetic tone or reduced [NaCl] in macula densa release renin

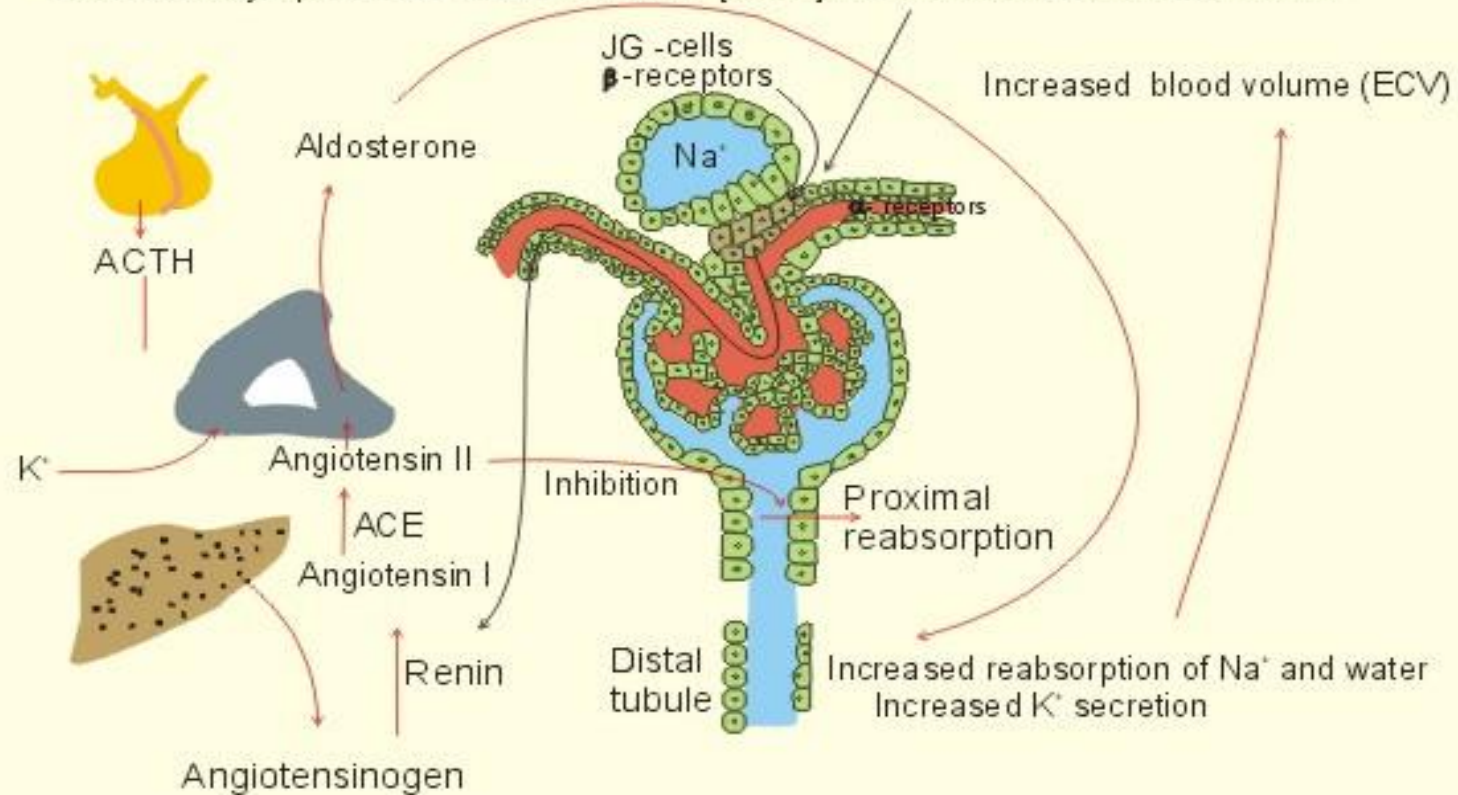
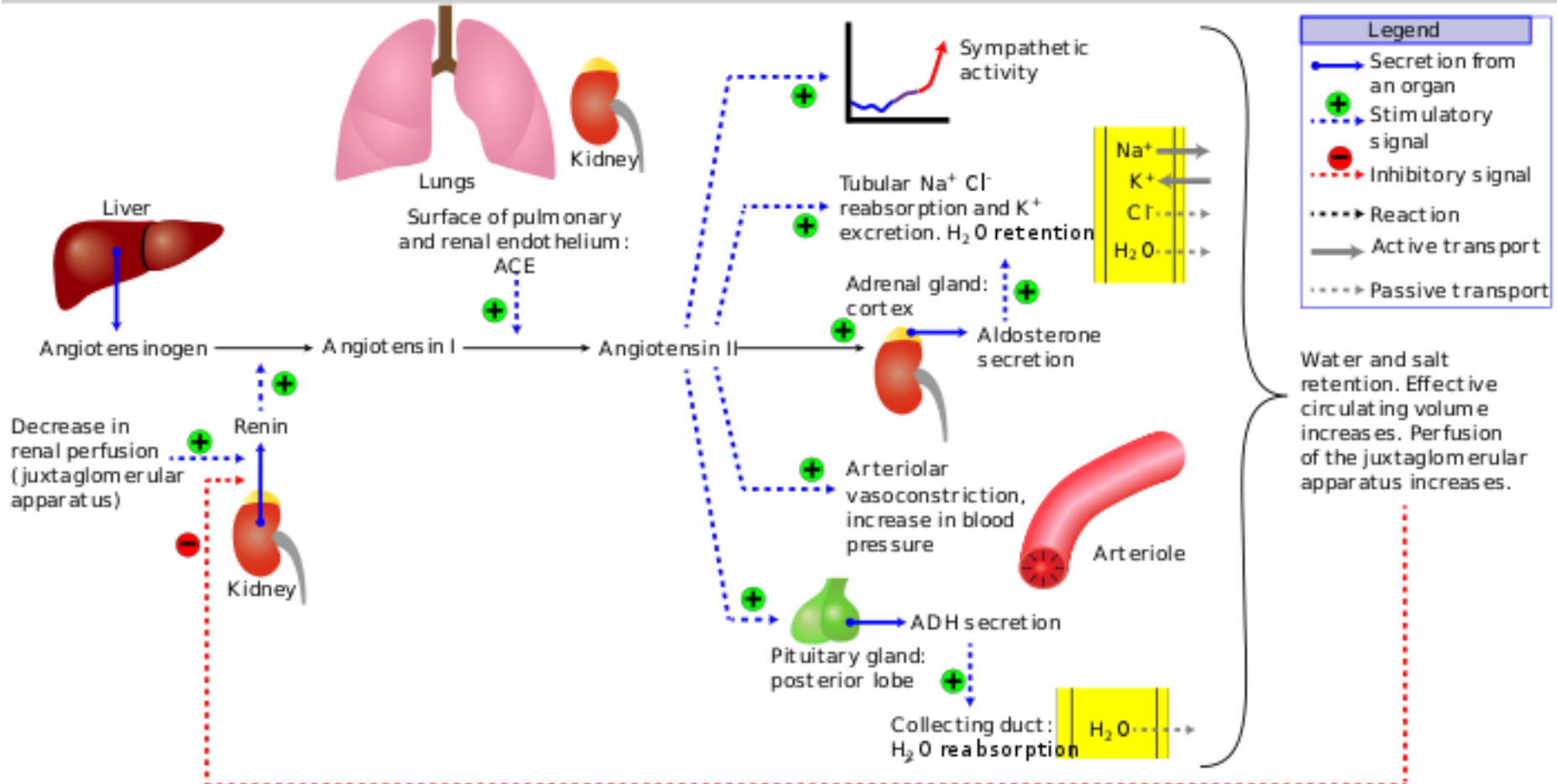


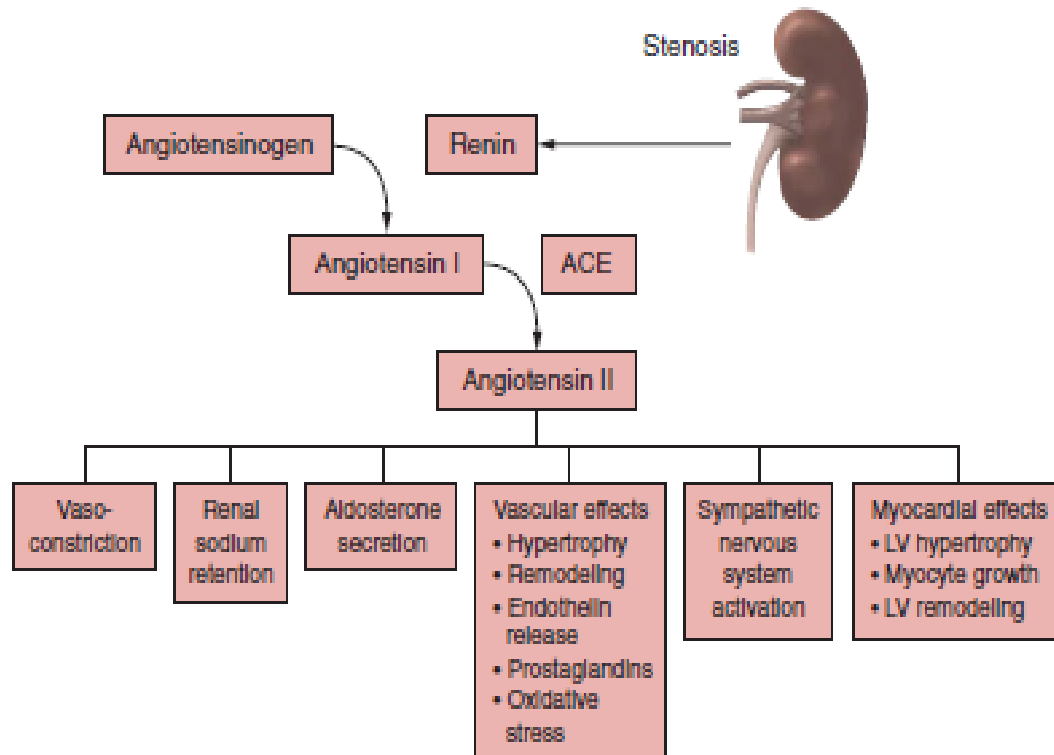
Fig. 24-5

Renin-angiotensin

Renin-angiotensin-aldosterone system

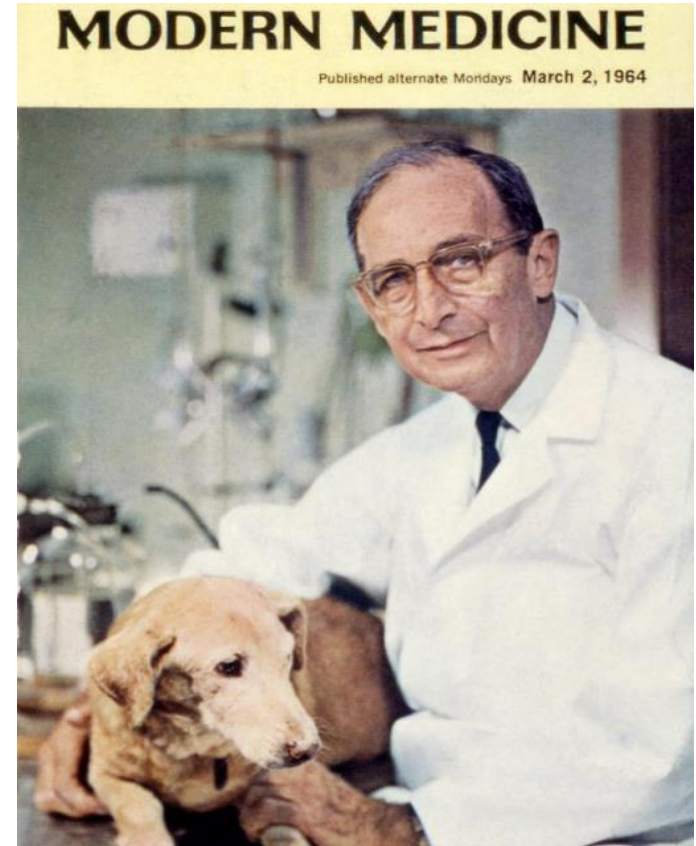


Angiotensin II



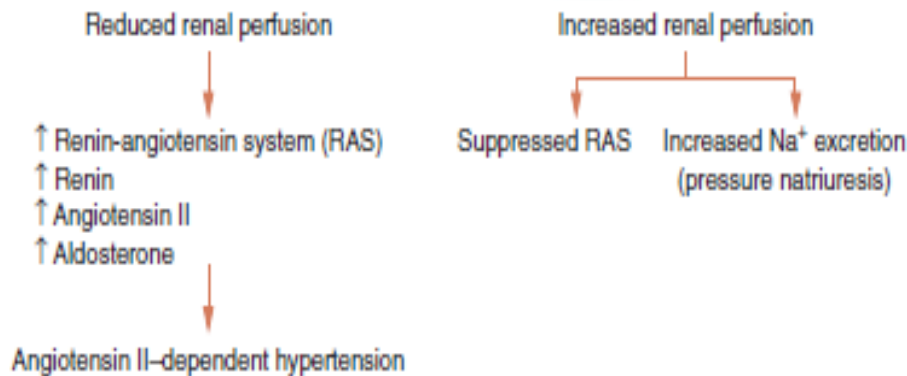
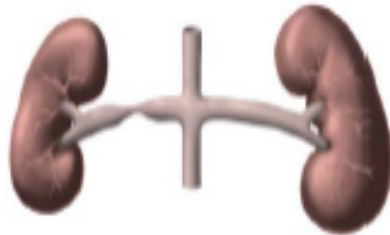
Harry Goldblatt

- 1891-1977
- 1934 – první model hypertenze



Renal artery stenosis

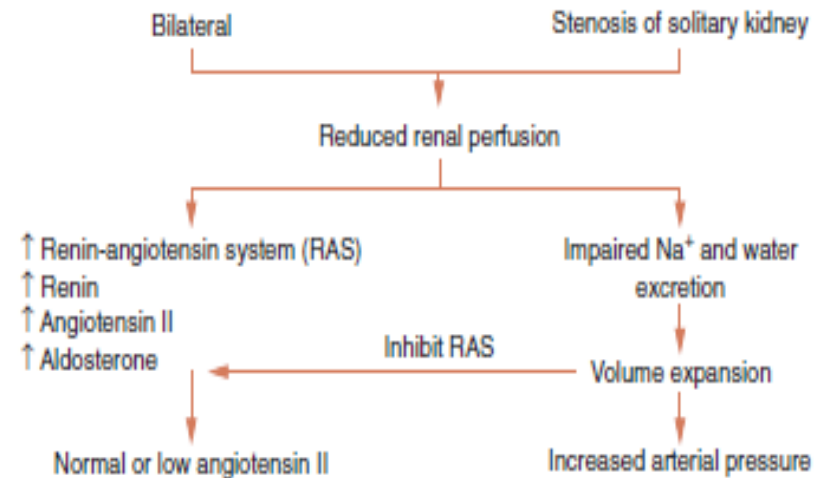
UNILATERAL RENAL ARTERY STENOSIS



Effect of blockade of RAS
 Reduced arterial pressure
 Enhanced lateralization of diagnostic tests
 Glomerular filtration rate (GFR) in stenotic kidney may fall

Diagnostic tests
 Plasma renin activity elevated
 Lateralized features, e.g., renin levels in renal veins, captopril-enhanced renography

BILATERAL RENAL ARTERY STENOSIS



Effect of blockade of RAS
 Reduced arterial pressure only after volume depletion
 May lower GFR

Diagnostic tests
 Plasma renin activity normal or low
 Lateralized features: none

Goldblatt's hypertension > two kidneys

