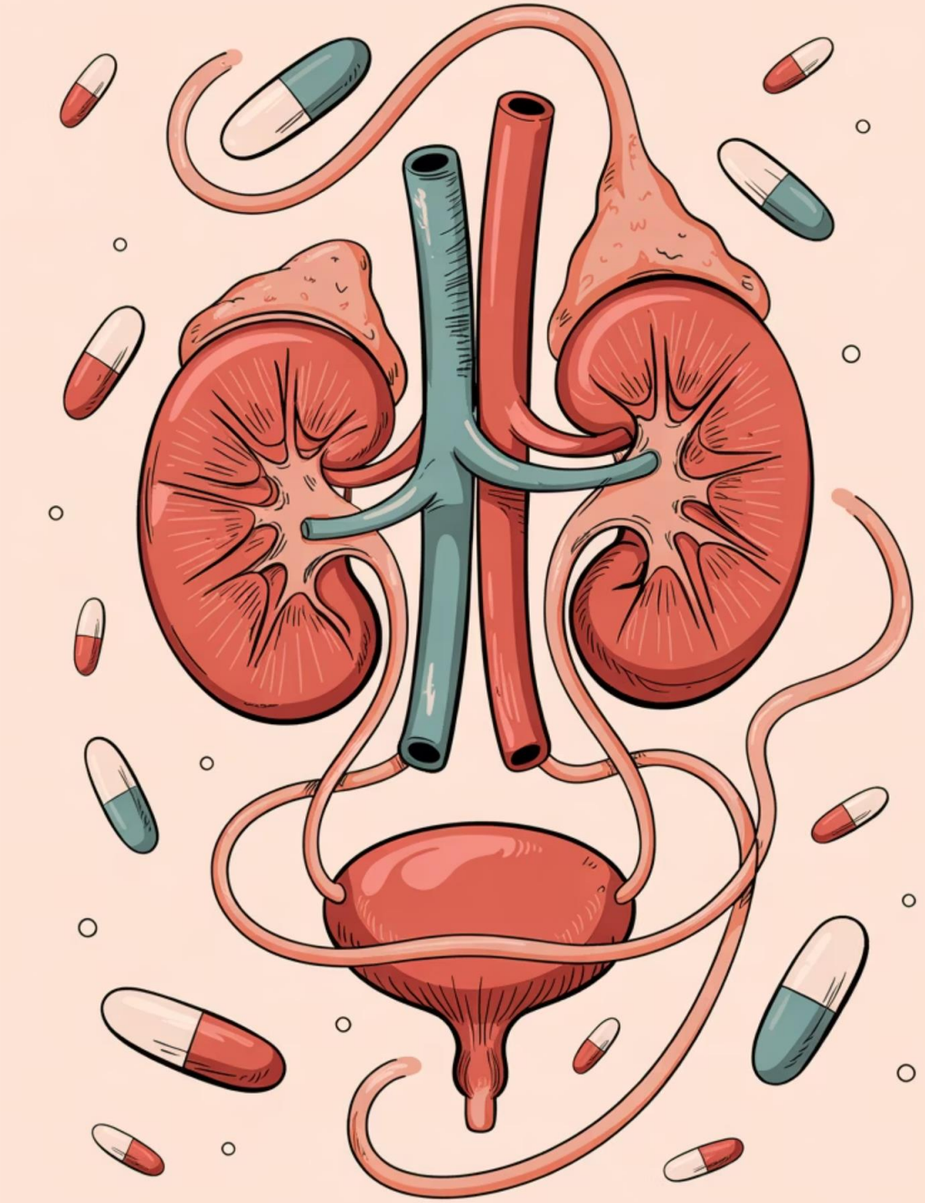
# Renal/Genitourinary System Medications

Key medications for treating renal and genitourinary conditions, their mechanisms, nursing considerations, and patient education points.

**by Miranda Ekenjock**




# Loop Diuretics

## Furosemide

Inhibits sodium/chloride reabsorption in loop of Henle

## Uses

Edema, hypertension, heart failure, renal disease

## Nursing Care

Monitor electrolytes, BP, hydration status

## Caution

Risk of hypokalemia with digoxin, corticosteroids

# Thiazide Diuretics

## Mechanism

Inhibits reabsorption in distal tubules

## Indication

Hypertension, edema

## Timing

Take in morning to prevent nighttime urination

## Monitor

Electrolytes, especially sodium and potassium

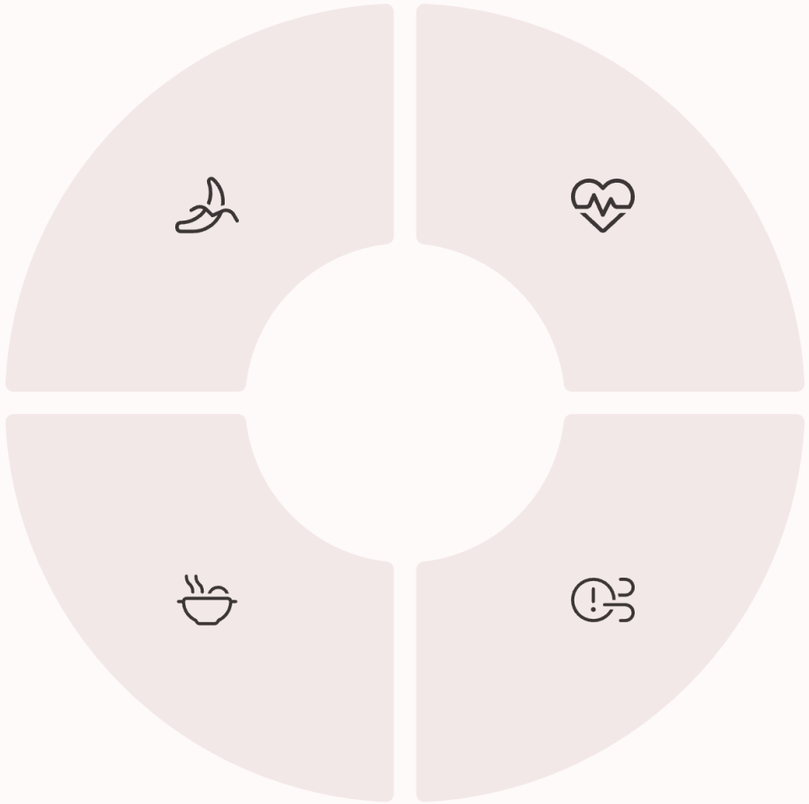
# Potassium-Sparing Diuretics

## Spironolactone

Blocks aldosterone in distal tubules

## Diet

Avoid potassium-rich foods and salt substitutes



## Uses

Heart failure, edema, hypertension

## Caution

Monitor for hyperkalemia

# ACE Inhibitors

## Mechanism

Inhibits angiotensin-converting enzyme

2

## Protection

Beneficial in diabetic nephropathy

## Side Effect

Report persistent dry cough

# Angiotensin II Receptor Blockers

## Mechanism

Blocks angiotensin II receptors

## Indications

Hypertension, heart failure, diabetic nephropathy

## Nursing Care

Monitor BP, renal function, potassium levels

## Patient Teaching

Avoid potassium supplements; report dizziness

### Angiotensin II receptor blockers

-sartan

- ARBs
  - Antagonize angiotensin II receptor → block action of angiotensin II
  - Don't work well w/ blacks
  - Not for 2 or 3 trimester
  - SE
    - Dizziness, HA, fatigue
  - Drugs:
    - Losartan [Cozaar]
    - Valsartan [Diovan]
    - Irbesartan [Avapro]
    - Candesartan [Atacand]

# Phosphate Binders

## Binding

Binds phosphate in intestines

## 2 Indication

Hyperphosphatemia in chronic kidney disease

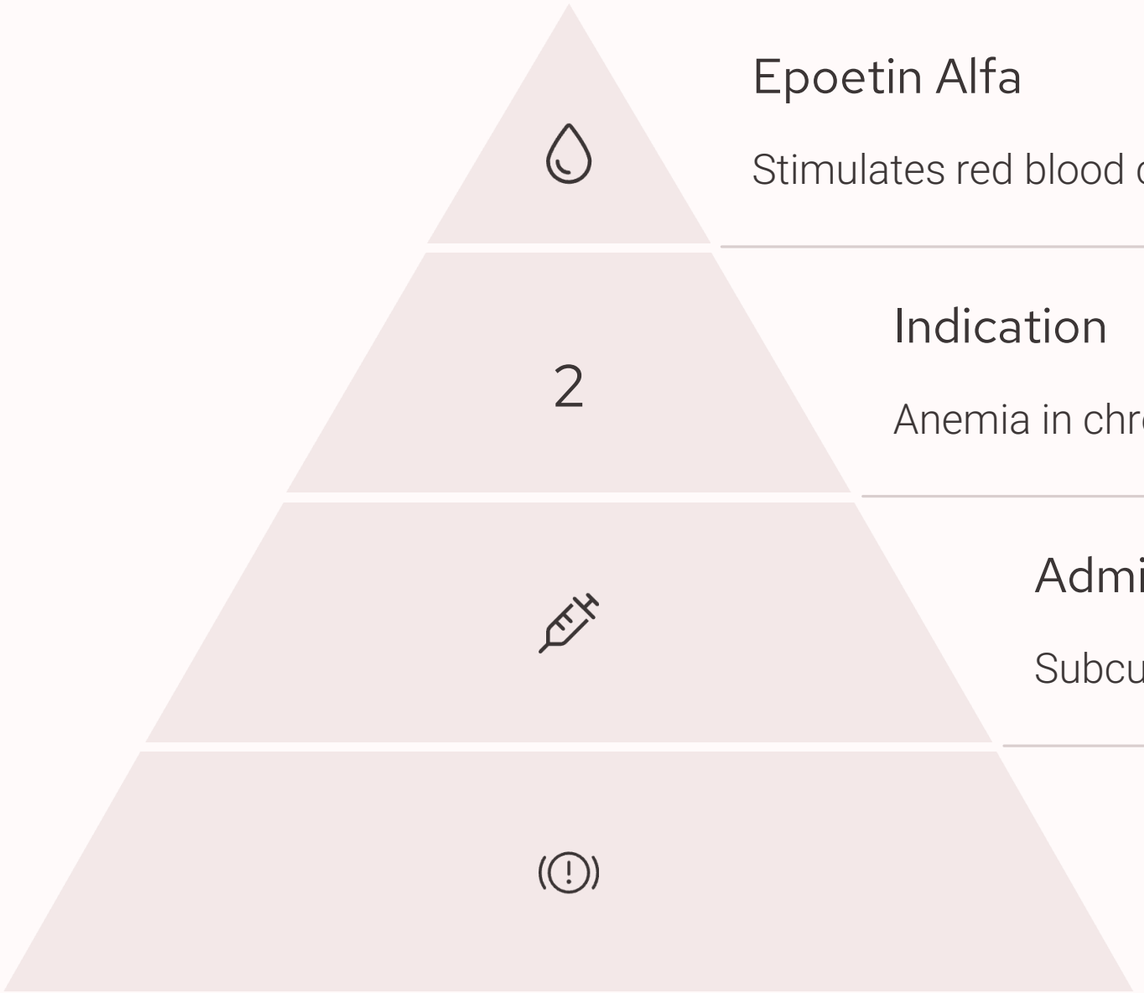
## Administration

Take with meals

## Monitoring

Check phosphate and calcium levels

# Erythropoiesis-Stimulating Agents




### Epoetin Alfa

Stimulates red blood cell production

### Indication

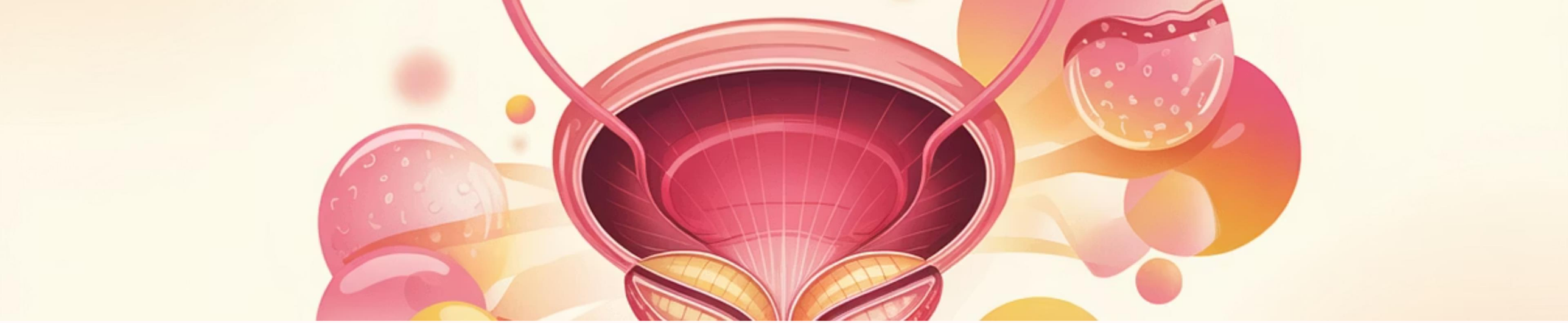
Anemia in chronic kidney disease

### Administration

Subcutaneous or IV injection

### Monitoring

Hemoglobin, BP, clot formation risk



# Anticholinergics for Bladder Control

## Mechanism

Relaxes bladder smooth muscle

## Indication

Overactive bladder, urinary incontinence

## Patient Teaching

Drink plenty of water; watch for dry mouth

## Caution

May cause drowsiness; avoid driving

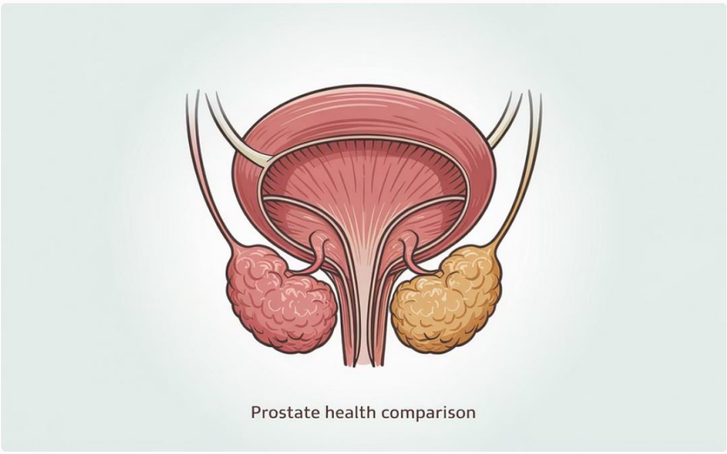
# Medications for Benign Prostatic Hyperplasia


## Alpha-Blockers

Relaxes smooth muscle in prostate; improves urine flow


## 5-Alpha Reductase Inhibitors

Inhibits DHT formation; shrinks prostate




## Treatment Goals

Improve symptoms; prevent complications