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| **Category** | **Examples** | **Mechanism** | **Uses** | **Side effects** |
| **Mannitol** |  | **Osmotic diuretic**Inc. urine flow | **Inc. intracran. pressure****Inc. intraoc. Pressure**Drug overdose | **Pulmonary edema**Dehydration**Do not use w/ anuria, HF** |
| **Acetazolamide** |  | **Carbonic anhydrase inhibitor**Inc. bicarb excretionAlkalinizes urine | **Glaucoma****Metabolic alkalosis****Altitude sickness****Pseudotumor cerebri** | **Type 2 RTA**Paresthesias**Sulfa allergy**Ammonium toxicity |
| **Loop diuretics** | FurosemideBumetanideTorsemide | **Inhibit Na/K/2Cl transporter**(TAL of Henle)Prevents urine concentration**Vasodilates afferent arteriole**(stimulates PGE release) | HFCirrhosisNephrotic syndromePulmonary edema**HTN****Hypercalcemia** | **Ototoxicity**Dehydration**Sulfa alltergy****Interstitial nephritis****Gout**HypokalemiaMetabolic alkalosis |
| Ethacrynic acid | **Inhibit Na/K/2Cl transporter**Nonsulfonamide | **Patients w/ sulfa allergies**(can’t use furosemide) | Similar to above**More ototoxic** |
| **Thiazide diuretics** | HydrochlorothiazideChlorthalidoneMetolazone | **Inhibit NaCl transporter**(DCT)Dec. nephron diluting abilityDec. calcium excretion | HTNHF**Hypercalciuria****Osteoporosis****Nephrogenic DI****(Inc. PCT Na/H2O reuptake)** | Hypokalemia**Hyperglycemia****Hyperlipidemia****Hyperuricemia****Hypercalcemia****Sulfa allergy** |
| **K+ sparring diuretics** | SpironolactoneEplerenone | **Aldosterone antagonists**Inc. Na/H2O excretionDec. K, H excretion | Hyperaldosteronism**K depletion****HF**Ascites (spironolactone)Nephrogenic DI(amiloride) | Hyperkalemia(**arrhythmias**)**Anti-androgenic**(spironolactone) |
| AmilorideTriamterene | **Inhibit ENaC channel**(collecting duct) |
| **Angiotensin****Converting****Enzyme****Inhibitors** | CaptoprilEnalprilLisinoprilRamipril | **Inhibit ACE -> dec. AT-II levels**Inhibit efferent arteriole constrict.(Dec. GFR)**Inc. bradykinin** (vasodilator) | **HTN (prevents heart remodel)****HF (dec. mortality)**Proteinuria**Diabetic nephropathy**Cause renal failure w/ bilateral renal artery stenosis | **Dry cough****Angioedema (bradykinin)****Teratogen (renal)**Inc. creatinineHyperkalemiaHypotension |
| **Angiotensin II****Receptor****Blockers** | LosartanCandesartanValsartan | **Prevents AT-II receptor binding****Do not increase bradykinin** | **HTN****HF**Proteinuria**Diabetic nephropathy** | HyperkalemiaDec. GFRHypotension**Teratogen** |
| **Aliskiren** |  | **Renin inhibitor**Blocks production of AT-I | Hypertension | HyperkalemiaDec. GFRHypotension**Do not give if taking****ACE-I or ARBs** |