

Causes

- ↓ **Renal excretion**
 - **Renal Failure**
 - **Hypoparathyroidism = ↓ synthesis of PTH = ↓ renal excretion**
- **Shift from ICF to ECF**
 - **Respiratory Acidosis**
 - **DKA**
 - **Anything that causes cellular destruction, such as chemotherapy, muscle necrosis, etc.**
- ↑ **Dietary intake**
 - ↑ **P supplements**
 - **Laxatives or enemas that contain P**
 - ↑ **Vit D in infants**

Associated Drugs

- **Enemas (Fleet)**
- **Laxatives**
- **Oral P supplements**
- **Parenteral P supplements**
- **Vit D supplements**

Hyperphosphatemia

> 4.5 mg/dl
Severe > 6.0

S/S - **P & Ca⁺⁺ have an inverse relationship**

- **Caused by effects of Hypocalcemia**
 - **Paresthesia in the fingertips to limbs & face**
 - **Severe muscle spasms, Cramps, Pain, Weakness**
 - **+ Chvostek's and Trousseau's sign**
 - ↓ **Mental status, Delirium, Seizures**
 - **EKG changes – prolonged QT interval & ST segment**
 - **Hypotension, HF, Anorexia, N, V**
- **Calcification**
 - **Arrhythmias, ↓ Urine output, Impaired vision, Papular eruptions**

Tx

- ↓ **P intake**
- **Drug therapy to ↓ absorption in GI tract**
- **Administer insulin in diabetes**
- **IV NS or diuretics**
- **Dialysis**

Labs/Diagnostics

- **Serum P > 4.5**
- **Serum Ca⁺⁺ < 8.5**
- **X-rays: osteodystrophy**
- ↑ **BUN & creatinine**
- **EKG changes**