



## **Osteoporosis**

### [Ostrich-with-porous-bones](#)

Renal osteodystrophy can lead to osteoporosis due to high bone turnover and impaired mineralization, characterized by trabecular thinning and increased fracture risk.

## **Osteomalacia**

### [Ostrich-Malaysia](#)

Decreased calcitriol causes impaired mineralization of bone matrix, leading to osteomalacia, which presents as diffuse bone pain and skeletal weakness.

## **Management**

### **Treating Underlying Disorder**

#### [Treating Disorders Under the Tent](#)

Management of renal osteodystrophy in chronic kidney disease focuses on correcting mineral imbalances through a combination of strategies: controlling phosphate levels via dietary restriction (maintaining serum phosphate  $\leq 5.5$  mg/dL) and using phosphate binders (calcium-based such as calcium acetate or carbonate, or non-calcium agents like sevelamer and lanthanum); supplementing vitamin D with calcitriol or analogs (e.g., paricalcitol) to enhance calcium absorption; addressing secondary hyperparathyroidism with calcimimetics such as cinacalcet or, in refractory cases, parathyroidectomy; and providing additional supportive care, including sodium bicarbonate for metabolic acidosis and bisphosphonates when osteoporosis is severe.