Referral Algorithm: Vitamin D Deficiency

At risk for vitamin D deficiency:
- Poor growth, gross motor delays and/or unusual irritability?
- Dark-skinned infants living at higher latitudes in the winter and spring months?
- Taking anticonvulsants or chronic glucocorticoids?
- Chronic diseases that are associated with malabsorption (cystic fibrosis, inflammatory bowel disease, etc.)?
- Frequent fractures and low bone density?

NO

Routine screening for vitamin D deficiency in patients with no risk factors is NOT indicated; may consider recommending over-the-counter daily age-appropriate vitamin supplementation

YES

Check vitamin D 25-OH

Abnormal result?

YES

Check total calcium, phosphorus, magnesium, alkaline phosphatase, parathyroid hormone, urine for calcium, creatinine and phosphorus

Elevated alkaline phosphatase level (rickets), hyperparathyroidism, hypocalcemia or hypophosphatemia

Refer to Endocrinology

NO

Referral to Endocrinology not indicated. The majority of vitamin deficiencies are dietary. Please manage per AAP guidelines. [https://pediatrics.aappublications.org/content/122/2/398.full](https://pediatrics.aappublications.org/content/122/2/398.full)