



# Essential Insights into Fat-Soluble Vitamins

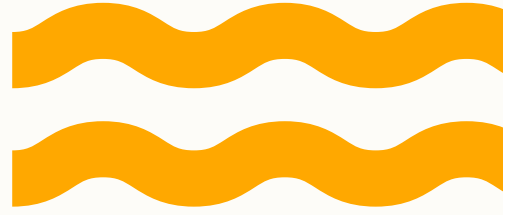


# Introduction

This presentation provides **essential insights** into *fat-soluble vitamins*, including their functions, sources, and potential health impacts. Understanding the role of these vitamins is crucial for maintaining a balanced diet and overall well-being.







# Vitamin A

Vitamin A plays a critical role in vision, immune function, and cell growth. Dietary sources include liver, carrots, and spinach

## Deficiency

- Causes Night Blindness , Bitot's Spot , Hyperkertatosis





# Vitamin A

## Toxicity

- Risk For Hip Fracture
- Renal Osteodystrophy
- Alopecia

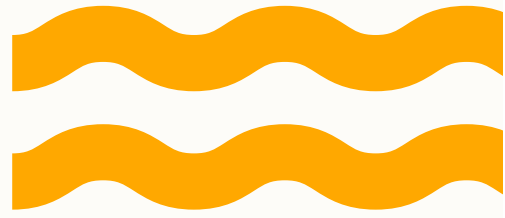
## Assessment

- Serum Retinol Conc





# Vitamin D



- **Vitamin D** is essential for bone health, immune function, and mood regulation. Sunlight exposure and fortified dairy products are primary sources.

## **Function :**

- **Bone Metabolism**
  - **Intestinal Absorption Of Calcium phosphate**

## **Deficiency :**

- **Osteomalacia , Osteoporosis , Tetany , hypocalcemia**

## **Toxicity :**

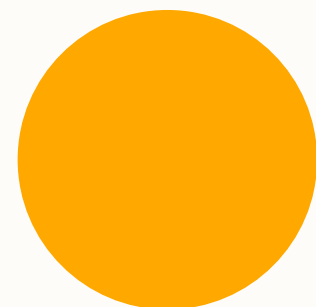
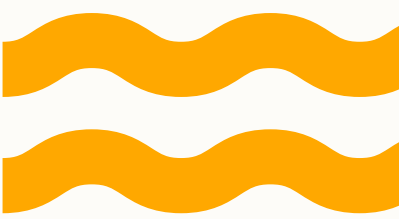
- **Calcification of soft tissue**

## **Assess :**

- **25-hydroxyl Vit D ( 40 - 75 ) ng/ml**







# Vitamin E

Vitamin E acts as a powerful antioxidant, protecting cells from damage. Nuts, seeds, and vegetable oils are rich sources. Insufficient intake may contribute to oxidative stress and chronic diseases.

## Function :

- Decrease platelet aggregation
- Cholesterol lowering Effect

## Deficiency :

- Decrease RBCs Survival

## Toxicity :

- Interfere With Vit k Absorption
- Increase bleeding risk for pt on warfain







# Vitamin K

**Vitamin K** is vital for blood clotting and bone metabolism. Green leafy vegetables and fermented foods are key sources.

## Deficiency :

- can lead to excessive bleeding and impaired bone health.

## Toxicity :

- hyperbilirubinemia & jaundice
- Menadione fatal Anemia

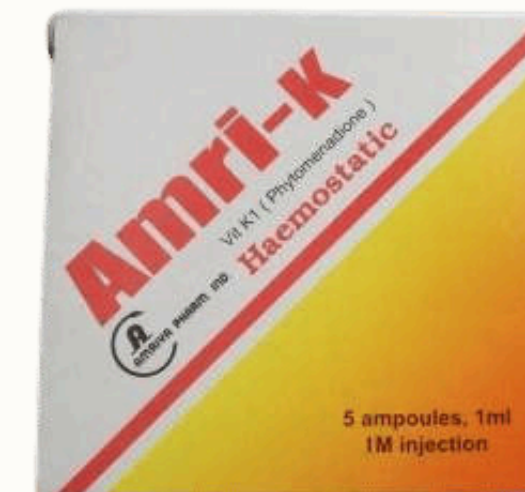
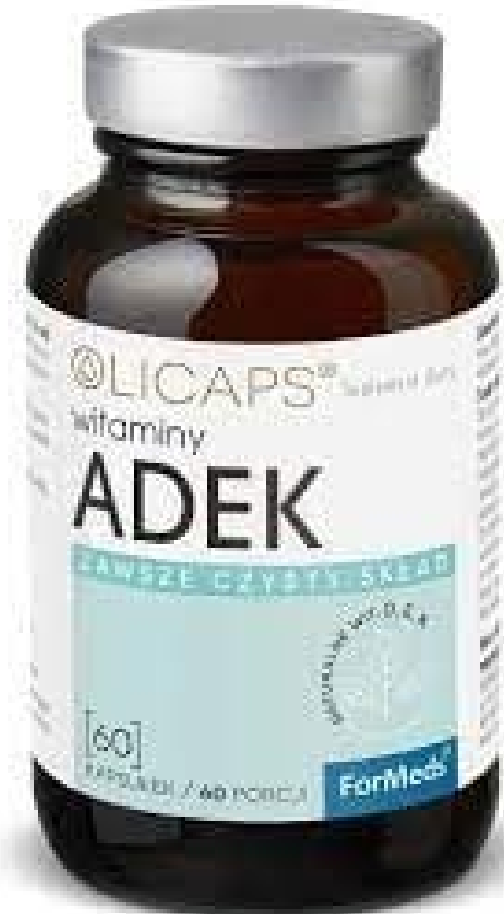
## Assess :

- INR

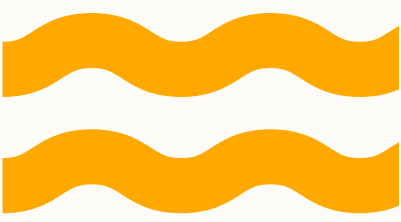




# Market Products

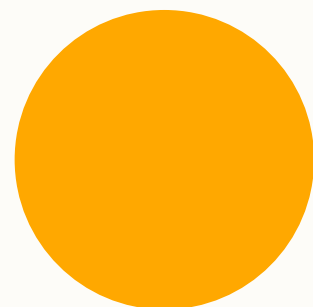






# Dietary Recommendations

Incorporating a variety of foods rich in fat-soluble vitamins, such as fruits, vegetables, dairy, and lean meats, is key to meeting dietary requirements. Consulting a healthcare professional for personalized guidance is recommended.







## Sources :

- **American board of clinical nutrition**
- **Up To Date**







**Thanks!**