

## A Few Minutes Series

Subject - Science & Tech

Date - 20<sup>th</sup> February 2023

Click [here](#) to watch the following topics on YouTube

### Vitamins

- Vitamins are organic compounds, found in natural foods which are required for **normal growth and maintenance of the body**. Both humans and animals require vitamins for their growth.

#### Types

- **Fat Soluble** : dissolved in fat Eg : A,D,E,K
- **Water Soluble** : Dissolved in Water Eg B & C

#### Facts

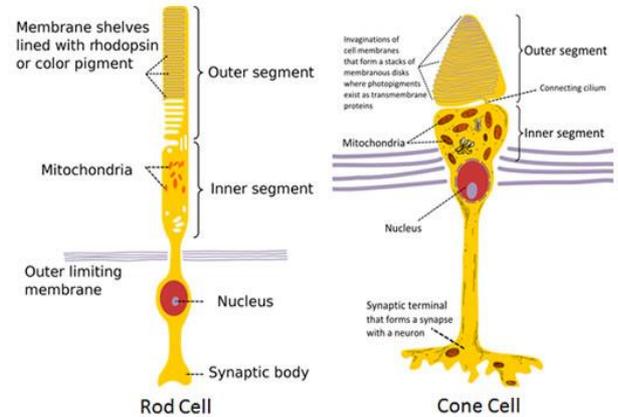
- Vitamin D & K synthesize in body
- Vitamin D synthesized by UV rays
- Vitamin K synthesized in Colon by bacteria

Vitamin	Deficiency Disease	Source
A (Retinol)	Night blindness, Xerophthalmia	Green leafy vegetables, ripe yellow fruits, guava, milk, liver, nuts, tomatoes, oranges, carrots, broccoli, watermelon etc.

#### Pathophysiology

Go to: [🔍](#)

Vitamin A has a role in the regeneration of visual pigment, maintenance of mucosal membranes, and immune function. Deficiency can lead to night blindness due to poor regeneration of visual pigment in retinal rods. If the deficiency is allowed to persist, the rods will degenerate, and xerophthalmia will develop, leading to true blindness.



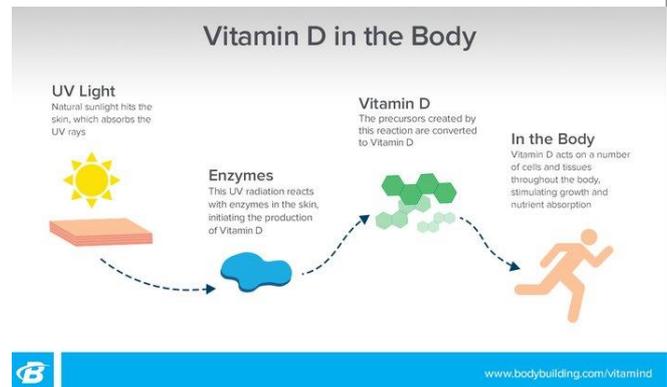
Vitamin	Deficiency Disease	Source
B1 (Thiamine)	Beriberi	Fresh fruits, potatoes, sweet potatoes, peas, corn, cashew nuts, wheat, milk, black beans, dates etc.
B2 (Riboflavin)	Slow growth, sore eyes, Cracking of tongue	Banana, dates, mushroom s, grapes, mangoes, peas, pumpkin, Green vegetable etc.

B3 (Niacin)	Pellagra	Meat, Tomato, fish, eggs, milk products, cereals, mushroom, guava etc.
B5 (pantothenic acid)	Impaired muscle coordination, fatigue	Broccoli, whole-grain cereals, mushrooms, Nuts etc
B6 (pyridoxine)	Anaemia, skin disease	Beef liver, Tuna, chickpeas, cereals etc
B7 (Biotin)	hair loss, or alopecia	whole eggs, Meat, Yeast
B11 (Folic acid)	Anaemia	Green varieties, whole grain products, bread, meat and dairy
B12(cyanocobalamin)	Anaemia	meat, fish, and dairy products
Vitamin	Deficiency Disease	Source

C (Ascorbic acid)	Scurvy, Gum bleeding	Red pepper, orange, lemon, tomato, Kiwi fruit
-------------------	----------------------	---



Vitamin	Deficiency Disease	Source
D (Calciferol)	Rickets and Osteomalacia	Fish, egg, liver, beef, cod, chicken breast etc.



Vitamin	Deficiency Disease	Source
E (Tocoferol)	Haemolysis, sterility	Potatoes, pumpkin, guava, mango,

		milk, nuts, seeds etc.
K (Phylloquinone)	Haemorrhage	Tomatoes, broccoli, chestnuts, cashew nuts, beef, lamb, mangoes, grapes etc