

## Vitamin deficiency: ocular manifestation

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### Introduction:

Vitamin is very necessary for our body for normal growth, nutrition, immunity power, metabolism, muscular body growth, strength of bony structure, nerve function such as sensory stimulations, receptor function, motor function etc which are very essential for our day to day activity. We normally can get vitamins by having healthy foods which are enriched with vitamins but normally we need very small amount of this and in case of excessively increased amount in the body here can be chance for toxicity also. There are various types of vitamins and absence of any components may cause severe diseases and malfunctions in normal growth, metabolism and nerve malfunctions etc. In some case it works as bio-catalyst which helps in metabolism activity by acting as co-enzyme. In case of very high temperature, during cooking with heat, excessive presence of sun rays and in high basic environment quality and efficacy of vitamin can be decreased. We can get vitamins from green and yellow vegetables, fruits, small fishes but vitamin d can be processed in our skin by presence of sun beam.

Vitamins is also very necessary for our Ocular health also as ocular system is connected with central nervous system (brain and spinal cord) as it enriched with many nerves, photoreceptors cells, ganglion cells nerve fiber layer functions, lots of motor and sensory functions as well as reflex arc etc. So, in case of deficiencies lots of ocular malfunction may occur.

### Classifications:

Vitamin can be classified into

#### **(1) Water soluble**

(Vitamin B complex which can be further classified as Thiamine known as B1, Riboflavin known as B2, pantothenic acid known as B3, Niacin or nicotinic acid known as B5, pyridoxine known as B6 as well as folic acid, cyanocobalamin known as B12, biotin known as vitamin H etc).

And vitamin c (**ascorbic acid**)

#### **(2) Fat soluble**

Vitamin A (Retinol), Vitamin D (cholecalciferol), vitamin E (Tocopherol) and vitamin K (Phylloquinone and Napthoquinone)

### Importance of vitamin

The names and functions of fat-soluble vitamins are:

(Fat soluble)

**Vitamin A:** very necessary for night vision and overall vision formation