

VITAMIN A DEFICIENCY / NIGHT BLINDNESS / XEROPHTALMIA

Deficiency of vitamin A.

Inability to see in dim light is known as night blindness (nyctalopia).

Xerophthalmia: dry eyes.

CAUSES

- 1) Inadequate intake of vitamin A rich food.
- 2) Malabsorption.
- 3) Intestinal diseases.
- 4) Poor socio-economic status.
- 5) Defective metabolism of vitamin A - liver disease, intestinal surgery, malabsorption or alcoholism.
- 6) Night blindness:
- 7) Vitamin A deficiency.
- 8) Retinitis pigmentosa.
- 9) Cataract.
- 10) Poor adaptation to darkness, accompanied by myopia.
- 11) Certain drugs.
- 12) Birth defect.
- 13) Genetic condition.
- 14) Caused by injury.
- 15) Defective metabolism of vitamin A - liver disease, intestinal surgery, malabsorption or alcoholism.

. SIGN AND SYMPTOMS

- 1) Deficiency of vitamin A has predominantly ocular manifestations - collectively known as xerophthalmia.
 - a. Night blindness - inability to see in dim light.
 - b. Conjunctival xerosis - conjunctiva becomes dry and non wettable, appears muddy and wrinkled.
 - c. Bitot's spots - are triangular, pearly white or yellowish spots on the bulbar conjunctiva on either side of the cornea.
 - d. Corneal xerosis - corneal appears dull, dry, non wettable, and opaque. May have corneal ulcer, ulcer heals with scar formation.
 - e. Keratomalacia - liquefaction of the cornea. Cornea becomes soft and may burst open. If the eye collapses vision is lost.
- 2) Extra ocular manifestation -
 - a. Hyperkeratosis.
 - b. Anorexia.
 - c. Growth retardation.
- 3) Increased susceptibility to respiratory and intestinal infections

DIETARY MANAGEMENT

- 1) Avoid:
 - Avoid going in crowded places as you are susceptible to get infections easily.
 - Avoid contacts with people suffering from respiratory or any infectious disease.

CONSUME

- a. Increase intake of vitamin A:

- i. Animal sources: egg, milk, fortified skimmed milk, butter, ghee, margarines, cheese, cream, meat, fish, kidney and liver.
- i. Liver oils of fish like cod, shark, and halibut are richest source of vitamin A. This source of vitamin A is rich in fat and cholesterol.
- ii. Plant sources: yellow orange colored fruits and vegetables are good source of - carotene.
- iii. Ripe fruits like mango, papaya, melons, apricots, peaches, pink grapefruit and vegetables like pumpkin, carrots, sweet potatoes, winter squashes, cantaloupe, peas, red pepper, tomatoes, and broccoli are rich in - carotene.
- iv. Green leafy vegetables (most dark green leafy vegetables) like, spinach, mustard leaves, fenugreek leaves etc are rich source of - carotene, and here the yellow color of - carotene is masked by chlorophyll present in the plants. These vegetables are free of fat and cholesterol.
- b. Increase intake of zinc, zinc aids in metabolism of vitamin A:
 - i. seafood (especially oysters), beef, oatmeal, chicken, liver, milk, spinach, sea plants, nuts and seeds.
 - ii. Plant foods are low in zinc, Whole wheat grains provide good amount of zinc.
- c. Eat raw leaves of sweet basil (tulsi) and mint leaves, this will boost up you immunity and protect you from infections.
- d. Add a pinch of turmeric to food; it will boost up your immunity.
- e. Continue breastfeeding, breast milk is a natural source of vitamin A.
- f. You can consume foods fortified with vitamin A to maintain vitamin A status.

CONSULT PHYSICIAN

- a. Consult your physician in case of any eye symptoms, as high doses of vitamin A (200,000 IU / 110 mg of retinol palmitate orally) need to be administered immediately to prevent eye collapse and blindness.

NOTE : PLEASE CONTACT WITH YOUR DOCTOR FOR EXACT DIET FOR THE HEALTH PRBLEMS YOU HAVE.THIS A SAMPLE DIET CHART TO GET THE IDEA OF YOUR DAILY ROUTINE FOOD INTAKE TO MAKE YOUR LIFE HEALTHY .