

SUNSHINE VITAMIN UNDER CLOUD

A study has found that for every 10% rise in 25-hydroxyvitamin D concentration, the risk of developing hypertension falls 8.1%

WHAT IS VITAMIN D?

A fat soluble vitamin, its synthesis in the body depends on latitude, atmospheric pollution, clothing, skin pigmentation and duration and time of exposure to sunlight

> 30 minutes of sunlight over arms and face, preferably between 10 am and 2 pm (when ultraviolet B rays are maximum) daily is enough to avoid Vit D deficiency

Possible consequences of Vitamin D deficiency

Schizophrenia
Depression

Vit D deficiency and low calcium intake are risk factors for:

- > Osteoporosis; low bone mass, muscle weakness and thus increased risk of fracture
- > Heightened risk of hypertension, diabetes, susceptibility to infection, heart problems and some forms of cancer

> **1 billion people worldwide have Vitamin D deficiency or insufficiency**

OTHER VITAMINS

Vitamins are organic substances that act as catalysts in the metabolic processes of the body. Several Indians suffer from deficiency of various vitamins

VITAMIN A

Found in Butter, whole milk, eggs, vegetables and liver



Deficiency causes night blindness and dry skin

B1 (THIAMINE)

Fruits, nuts, vegetables, fish, cereals, whole grain and bran



Deficiency causes numbness, tingling, loss of sensation and shooting pains in the extremities, especially legs

B2 (RIBOFLAVIN)

Milk, liver, eggs and vegetables

Deficiency causes dimness of vision, ulcers in mouth, cracked lips



Hepatic failure

Renal failure

Obesity

MALABSORPTION

Crohn disease
Whipple disease
Cystic fibrosis
Celiac disease
Liver disease

High blood pressure

Muscle weakness

Osteoporosis

THE INDIAN SCENE

> Various studies across India show that **50% to 90%** Indians suffer from Vitamin D deficiency

B3 (NIACIN)

Cereals, whole grains, vegetables, fish and meat



Deficiency causes weakness, diarrhoea, burning sensation on the tongue, mouth sores, rough skin and weight loss

B12 (CYANOCOBALAMINE)

Fish, meat and milk or supplements



Deficiency causes weakness, numbness and tingling in the extremities and shortness of breath

C (ASCORBIC ACID)

Citrus fruits and fresh vegetables



Deficiency causes bleeding, swollen or infected gums

Vitamin E, K, folic acid and zinc are other micronutrients that are low among Indians

WHAT CAUSES VITAMIN D DEFICIENCY?

1 Changing food habits leading to low dietary calcium intake

2 High fibre diet containing phosphates and phytates that deplete Vitamin D stores and increase calcium requirement

3 Genetic factors that impede synthesis of the Vitamin D

4 With modernization, the number of hours spent indoor has increased, thereby preventing adequate exposure to the sun

5 Increased pollution prevents UV radiation from reaching the ground; UV B is needed for synthesizing Vitamin D in skin

6 Repeated and unplanned, unspaced pregnancies may also create health issues for a person

Source: Indian Pediatrics & JAPI (Journal of Association of Physicians of India)