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Vitamin D can cut asthma risk: Study

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AHMEDABAD: A daily dose of Vitamin D can literally cut down the risk of severe asthma attacks. A recent study involving 120 asthma and normal patients has revealed levels of Vitamin D -which is also called 25-Hydroxycholecalciferol and magnesium ion were found to be low in asthma patients.

Also, the severity of the asthma increased with the increased deficiency of these two important vital components.

The study found that 63% of asthma patients were drastically low vitamin D and magnesium levels. The study was carried out on patients ranging within the age of 17 to 80 years. The study was carried out by a team of

researchers M N Shaikh and B R Malapati from PIMSR Waghodia, Ruchi Gokani from CU Shah Medical College, Surendranagar, Bhavita Patel from SBKS Piparia and Mitul Chatriwala from Pramukh Swamy Medical College in Karamsad.

Debilitating DEFICIENCIES

PATIENTS STUDIED

Total patients with Asthma **60**

Total control patients **60**

WHAT IS NORMAL

Magnesium range

1.7 to 2.5 milligram/decilitre (normal)

Calcium range

8.6 to 10.3 milligram/decilitre (normal)

VITAMIN D RANGE

NORMAL |
30 to 60 ng/ml

INSUFFICIENCY |
Less than 30 ng/ml

DEFICIENCY |
Less than 20 ng/ml
ng/ml: nanogram/ millilitre

VITAMIN D AND MAGNESIUM LEVELS IN ASTHMA PATIENTS

LACK OF VITAMIN D

| Interpretation | Affected patients | % affected |
|----------------|-------------------|-------------|
| Insufficient | 60 | 100 |
| Deficient | 38 | 63.3 |

LACK OF MAGNESIUM

| Interpretation | Affected patients | % affected |
|----------------|-------------------|-------------|
| Normal | 25 | 41.2 |
| Hypomagnesemia | 35 | 58.8 |

KNOW ABOUT VITAMIN D

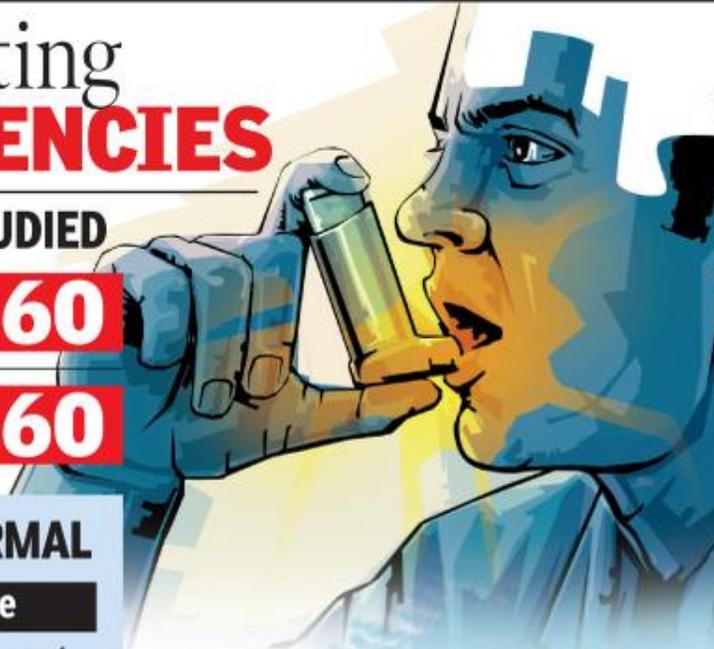
➤ **Known as the “sunshine” vitamin**, it is found in food and is made in the body when the skin is exposed to sunshine

➤ Limited amounts of the vitamin are found in foods such as **oily fish, eggs. Cereals** like all **whole wheat grains** including **ragi, barley** and **soybean flour** and dry fruits like **walnut** and **peanuts also help** in overcoming a **Vitamin D deficiency**

➤ For most people the bulk of their vitamin D comes from **sunlight**

➤ **Low** vitamin D levels can **lead to brittle bones**

➤ Vitamin D can **boost immunity** and **dampen inflammation**



The researchers found that in the case of severe asthma cases, the vitamin D levels in the serum tested were 31 nanogram/millilitre and less, while the magnesium levels were 1.53 milligram/decilitres or less. In the case of moderate asthma, the vitamin D levels were 47.7 nanogram/millilitres, while that of magnesium levels were 1.86 milligram/decilitres or less.

However, researchers have said that though there is a strong co-relation between the severity of asthma attacks and magnesium or vitamin D deficiencies, before going in for vitamin D supplements the patient should consult a general physician.

While explaining the role of magnesium ions, the study claims that serum magnesium levels affects the concentration of circulating vitamin D in blood and subsequently it affects the immunity and hence, magnesium plays a significant role in the pathogenesis of asthma. The study says that hypomagnesemia—low magnesium and vitamin D deficiency—is "very common in asthmatic individuals, which cause respiratory infections, severe exacerbations and poor immune response.

Moreover, vitamin D is found to play role in body's defences against various microbial agents. It increases the synthesis of cathelicidin and immunoglobulins in the body. "Probably this can be the possible reason behind the curing effects of sunlight on tuberculosis and other infections," claims the study. It further adds that vitamin D has proved to be an important regulator of immunity. Its deficiency along with asthma triggering stimuli can increase the risk of asthma and allergies, claims the research.