

# Vitamin D3 1000IU Tablets 維他命D3



## Calcium loss from our body without the presence of Vitamin D

Vitamin D is a fat soluble vitamin, which can help in developing healthy and strong bone structure. On top of these uses, vitamin D can modulate calcium level in the body. Apart from absorbing from diet, vitamin D can also be synthesized from stimulation of skins by sunlight and then stored in the body. Therefore, vitamin D is well-known as the Sunshine Vitamin.

When the concentration of vitamin D in body is low, calcium cannot be fully absorbed by intestine which leads to the loss and wastage of calcium by excretion. Vitamin D can effectively slow down the process of calcium loss, while promoting the absorption of calcium in intestine, so more calcium can be accumulated in the skeletal system. Thus, vitamin D is able to assist calcium in promoting growth and teeth health.

## Improve mood and quality of sleep [1,2]

Vitamin D helps to maintain the equilibrium of blood calcium concentration. When blood calcium concentration is low, nerve becomes tenser. Nerve racking and ease of becoming depressed may be resulted.

Vitamin D promotes calcium absorption in intestines which can raise the blood calcium level, producing a relaxing effect. The requirement of a good sleep is that people need to be relaxed. Vitamin D helps to relieve tense emotion which enables people to have good quality of sleep, and start with a good new day.

## Muscle health and prevent falls in older adults [3,4]

The benefits of vitamin D in assisting calcium absorption are not just limited to maintaining bone health and keeping good quality of sleep, but can contribute to maintaining muscle health as well. Vitamin D can directly affect muscle strength which is regulated by vitamin D receptors on muscle tissues.

Deficiency in vitamin D can thus lead to muscle impairment, weakness and pain. To tackle this problem, supplementation of vitamin D can reverse this situation by improving strength, function and balance of muscles. As from clinical studies, supplementation of vitamin D can result in reduced risk of falling among older adults by improving body balance.

## Questions and Answers for Vitamin D

### Am I taking enough Vitamin D every day?

Working class are commonly unable to ensure themselves to have enough intake of vitamin D, because they work indoor for a long period of time, and have less time exposed under sunshine. Vitamin D produced by their skin may not be adequate to satisfy daily need. Even for people working outdoor or often have sun-bathing, and therefore can produce more vitamin D, the irradiation of sun light (UVA and UVB) on skin may raise the risk of skin cancer and speed up skin aging. The disadvantages outweigh the advantages mentioned above.

Vitamin D can be obtained from seafood, eggs or milk products, but the amount of vitamin D in these foods usually are not high. The working class is so busy in working and thus may not be able to have a balanced diet. Dietary supplements can help to replenish the need of vitamin D, a convenient and easy way to achieve the nutritional needs every day.

### What are the factors and symptoms of Vitamin D deficiency?

Vitamin D deficiency can occur when usual intake is lower than recommended levels over time, exposure to sunlight is limited, the kidneys cannot convert vitamin D to its active form, or absorption of vitamin D from the digestive tract is inadequate. [6] Vitamin D-deficient diets are associated with milk allergy, lactose intolerance, ovo-vegetarianism, and veganism.

Vitamin D deficiency can lead to softness of bones, resulting in weak bones. Symptoms of bone pain and muscle weakness may indicate deficiency. Older adults are at increased risk of developing vitamin D insufficiency in part because, as they age, skin cannot synthesize vitamin D as efficiently. They are likely to spend more time indoors, and may have inadequate intakes of the vitamin.

### Is Vitamin D3 better than other forms of vitamin D?

There are many forms of vitamin D, but among all of these forms, only vitamin D2 (Ergocalciferol) and vitamin D3 (Cholecalciferol) are important to human. Vitamin D2 is the form that is produced in plants in response to sunlight, but it is not commonly exist in nature. Vitamin D3 is the form that is produced in our skin when we are exposed to sunlight. The function and mechanism for vitamin D2 and D3 are the same in human body, but vitamin D3 is better than vitamin D2. It is because vitamin D3 is more effective to raise the vitamin D concentration in blood and is more readily absorbed by human body.

## Benefits of Vitamin D3:

- ◆ Facilitate the absorption of calcium [7,8]
- ◆ Maintain the health of teeth and bone [7,8]
- ◆ Enhance vitality [6]
- ◆ Improve quality of sleep [1]
- ◆ Stabilize emotion [2]
- ◆ Strengthen immunity [7,8]
- ◆ Enhance body metabolism [9]
- ◆ Slow down the process of calcium loss [10]

## Recommended daily dose:

Adult and children age of 12 years and above, take 1 tablet daily or as directed by physicians.

## References:

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