

# Do Sri Lankans & others living in tropical countries need calcium and vitamin D supplements?

If you suffer from Osteoporosis, common cause of chronic aches & pain as you age, see your doctor. He or she will do bone density nuclear studies and Bone Mineral Densitometry (DEXA).

Website: [www.doctorharold.com](http://www.doctorharold.com)

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There is no need for any healthy active person to take calcium supplements daily, because you take enough in your milk and other dairy products, leafy greens, seafood, legumes, dried fruits, tofu and various foods that are fortified with calcium.

This is because taking calcium supplements lacks the effectiveness to prevent fractures in old people.

Taking daily calcium supplements may produce constipation.

Professor Ian Reid and Associate Professor Mark Boland of University of Auckland once wrote that calcium supplements were not needed in healthy individuals, nor were they required in most people being treated for osteoporosis.



On the other hand, vitamin D supplements help in the prevention of osteo-malacia (softening of bones), especially those who are not exposed to direct sunlight.

**For bone weakness without taking calcium supplements, you may start taking bisphosphonates, romosozumab that inhibits bone resorption and stimulate bone formation.**

Professor Reid seem to think that calcium and vitamin D supplements may be used in conjunction with the above drugs for osteoporosis.

Do dark pigmented people like Asians and Sri Lankans get enough sunlight to make vitamin D as much as the non-pigmented people?

Pigment melanin seem to reduce the skin's ability to make vitamin D in response to exposure to the sun. Furthermore, Sri Lankans and other Asians in the tropical belts, avoid being in the sun due to high degree of humidity and heat which makes

exposure very uncomfortable. They do not believe in the traditional sunbathing as the non-pigment individuals.

This vitamin is also called "sunshine vitamin" because it's manufactured in our skin in response to direct sunlight. It is a fat-soluble vitamin, meaning that it gets absorbed through the gut in the presence of fatty foods.

It is known that vitamin D insufficiency is more prevalent among African Americans. They do not achieve optimal 25-hydroxyvitamin D (25 (OH)) concentrations primarily due to the thick melanin layer in the basal layers of the outer skin (epidermis).

In Sri Lanka, Rodrigo et. al. has reported that 56% of the premenopausal women have vitamin D level less than 35 nmols/L in the Southern coastal belts of the country.

A survey done by Meyer HE, Holvik K, Lofthus CM and Tennakoon SU, observed that Sri Lankans in Norway had substantially lower levels of s-25(OH) serum 25-hydroxyvitamin D than in a group in Kandy, further the levels among Sri Lankans in Kandy was lowest during the months of August and September after the SW monsoon rains, when there is very little sunlight due to the heavy clouds.

**In the developed countries like Australia, the doctors seem to request for blood vitamin D levels routinely, when checking for lipids and other biochemical investigations. However, in Asian countries including Sri Lanka, such routine tests are not done for obvious reason, being the cost factor.**

Knowing one's vitamin D level is important as enough levels keep you healthy preventing many diseases. It maintains strong bones. Lower levels of vitamin D is found in people who fractures their weight bearing bones with the slight slip and fall.

The incidence of such fractures, especially the neck of the femur is quite common among the elderly people in Sri Lanka, and they have pins(Smith Peterson) inserted to strengthen those bones, at a very high cost to the patients and the government if you are a public individual not having funds to enter the private hospitals.

Lower vitamin D levels seems to be present among those people suffering from depression.

Vitamin D boosts weight loss and required for normal growth and development of bones and teeth.

It regulates the calcium and phosphorus absorption through your gut. What this means is that lack of dietary vitamin D may prevent absorption of calcium in your gut. Your body gets its vitamin D from your food, supplements and through the skin exposure to the direct sunlight.

Vitamin D also boosts your immune system and prevents the risk of developing certain diseases. A large-scale meta-analysis using more than 10,000 participants

concludes that vitamin D supplementation may help to prevent a major cause of global death from acute respiratory infections, by boosting the immune system.

The other benefits are- reduces the risk of multiple sclerosis, heart disease and help to reduce your likelihood of developing the flu during flu epidemics, so frequent in Sri Lanka.

Scientists have done research on the role of vitamin D on the prevention of colorectal cancer and the results are promising. It is also observed that taking higher levels of vitamin D is linked with a lower chance of getting the disease.

It is also observed that intake of vitamin D supplements and diet may protect against breast cancer and improves markers of prostate cancer.

The symptoms of vitamin D deficiency includes:

General tiredness, aches and pains in your joints. Difficulty in climbing steps. Bone and muscle pain and cramps.

If you have any of the above symptoms, do not neglect and say just "old age", check your blood vitamin D level. Levels below 30 nmol/L of serum 25-hydroxyvitamin D (25(OH)D) may need vitamin D supplements.

Taking excess of vitamin D being fat soluble may accumulate in your liver and may produce toxicity. Vitamin D levels above 100ng/ml (250 nmol/L) are potentially harmful.

Bottom line:

People in Sri Lanka though being in a "sunshine country" and other migrated dark skin people including Sri Lankans in other countries, should check their vitamin D levels annually.

There is no necessity to take daily calcium supplements, dietary calcium is enough for daily requirement.

Hope this article was useful.

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