

Role of Vitamin D in Health: Current Scenario

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Abstract—Vitamin D has been recognized for its role in growth, maintenance of the skeletal system as well as for the regulation of serum calcium levels for several decades. Its deficiency has been known to cause improper mineralization of bones resulting in rickets in children and osteopenia in adults. Recent scientific evidence indicates an emerging role for vitamin D in a variety of physiological functions including cell differentiation, insulin production and immune function. Vitamin D deficiency is thought to increase the risk of certain cancers, cardiovascular disease and may impact many other health conditions. Asians are reported to have a poor vitamin D status in spite of adequate sunshine in the region. Historically, the main source of vitamin D for Indians has always been via synthesis in the skin resulting from exposure to UVB light from the sun. Lack of sun exposure due to lifestyle changes, darker skin colour, high pollution levels, overcrowded residences with very little or no sunlight and almost no consumption of foods containing vitamin D are some of the risk factors for the a poor vitamin D status in the healthy Indian population. Data on the extent of vitamin D deficiency at the population level from most Asian countries, including India, is limited. Part of the reason for paucity of data on vitamin D status is the absence of clear recommendations on optimal vitamin D intakes and status as well as clear consensus on the cutoffs for deficiency.. Until such time clear recommendations are made, the vitamin D supplements should be used with caution.