

Guest Editorial



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HOW TO TREAT CALCIUM DEFICIENCY

Calcium and vitamin D are essential for bone health. Any supplementation of vitamin D to treat vitamin D deficiency will not have its desired effect on bone health unless it is accompanied by supplementation of calcium. The peak bone mass is achieved by 2nd and 3rd decade of life. Thereafter, there is a gradual bone loss which is accelerated after menopause in women and in old age. Women in reproductive age group require adequate supplementation of calcium and vitamin D for maternal and foetal skeletal wellbeing. Women in post-partum period and there after, require adequate vitamin D and calcium supplementation to maintain their bone health.

The ICMR-NIN Recommended Dietary Allowances (RDA)(mg/day) 2020 for various age groups as follows (elemental calcium): 0–1 year:300; 1–3 years:500; 4–6 years:550; 7–9 years 650;10–12 years:850; 13–15 years:1000; 16–18 years:1050;>18 years:1000; pregnant women 1000 and lactating:1200.

Most common calcium preparations are calcium carbonate and citrate salts. 1250 mg of calcium carbonate gives 500 mg of elemental calcium, which is the maximal dose of calcium given at a time. Calcium citrate can be taken without meal. It is ideal choice in patients with achlorhydria and those taking proton pump blockers and histamine -2 blockers. Calcium carbonate is the lease expensive and is recommended. It should always be taken with a meal.

Reference:

1. ICMR. Nutrient requirements and recommended dietary allowances for Indians, A Report of the Expert Group of the National Institute of Nutrition (ICMR). (2020). https://www.nin.res.in/RDA_Full_Report_2020.html
2. Harinarayan CV, Akhila H, Shanthi sree E. Modern India and dietary calcium deficiency – half a century nutrition data – retrospect-introspect and the road ahead. *Front. Endocrinol.* <https://www.frontiersin.org/articles/10.3389/fendo.2021.583654/abstract>. *Front. Endocrinol.* 12:583654.doi: 10.3389/fendo.2021.583654.