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Is vitamin D2 better than vitamin D3?

D2 vitamini D3 vitamininden daha iyi midir?

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Long-term vitamin D deficiency may lead to osteoporosis and muscle weakness, increasing the risk for osteoporotic fractures.

Most commonly used oral formulations of vitamin D are ergocalciferol (vitamin D2) and cholecalciferol (vitamin D3). Both are considered having equivalent clinical efficacy. Similarly, Holick et al.^[1] suggested that vitamin D2 was as effective as vitamin D3 in maintaining 25-hydroxyvitamin D [25(OH)D] status.

However, there are several studies indicating that ergocalciferol is much less potent with a shorter duration of action than cholecalciferol.^[2,3]

In a Cochrane Systematic Review and metaanalysis, the authors concluded that there was a valid evidence that elderly women living independently or in institutional care, particularly, might considerably benefit from vitamin D_3 .^[4]

Another meta-analysis also indicated that vitamin D₃ was more efficacious at raising serum 25(OH)D

concentrations than is vitamin D₂ and thus vitamin D₃ could potentially become the preferred choice for supplementation.^[5]

REFERENCES

- Holick MF, Biancuzzo RM, Chen TC, Klein EK, Young A, Bibuld D, et al. Vitamin D2 is as effective as vitamin D3 in maintaining circulating concentrations of 25-hydroxyvitamin D. J Clin Endocrinol Metab 2008;93:677-81.
- 2. Armas LA, Hollis BW, Heaney RP. Vitamin D2 is much less effective than vitamin D3 in humans. J Clin Endocrinol Metab 2004;89:5387-91.
- 3. Houghton LA, Vieth R. The case against ergocalciferol (vitamin D2) as a vitamin supplement. Am J Clin Nutr 2006;84:694-7.
- Bjelakovic G, Gluud LL, Nikolova D, Whitfield K, Wetterslev J, Simonetti RG, et al. Vitamin D supplementation for prevention of mortality in adults. Cochrane Database Syst Rev 2011;CD007470.
- Tripkovic L, Lambert H, Hart K, Smith CP, Bucca G, Penson S, et al. Comparison of vitamin D2 and vitamin D3 supplementation in raising serum 25-hydroxyvitamin D status: a systematic review and meta-analysis. Am J Clin Nutr 2012;95:1357-64.

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