

Seasonal changes of the vitamin D status in a Benedictine abbey

Project: 371

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Objectives:

To investigate the hypothesis that living a monastic life in an abbey is associated with an increased risk of vitamin D deficiency.

Design:

Cross-sectional study at two time points (spring & fall).

Setting: The Benedictine Abbey of Einsiedeln in Switzerland (8°74' East / 47° 12' North, 889 m above sea level).

Participants: 32 healthy Benedictine monks.

Main outcome measures: Prevalence of low 25(OH)-vitamin D (25(OH)D) plasma levels.

Results:

75% of the monks had in spring a severe vitamin D deficiency (defined as serum concentration of 25(OH)D < 30 nmol/L). In fall this number declined to 32%. The median serum 25(OH)D in spring was 18.2 (range 7.4-69.1) nmol/L, in fall 37.8 (20.2-82.4 nmol/L). In fall (not in spring) the self-judged total sun exposure ($r = 0.44$, $p = 0.03$) and the self-judged sun-linking-score ($r = 0.52$, $p = 0.01$) correlated with the serum 25(OH)D concentration.

Conclusion:

Ora et labora represents a so far neglected risk factor for vitamin D deficiency. Monks should receive enlightening not only from their spiritual activities but also from sunlight. The latter applies also for the general population.

Submitted