

Low vitamin D levels may be associated with recurrent inflammatory spinal cord disease

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Vitamin D levels are significantly lower in patients with recurrent inflammatory spinal cord disease, according to a study published Online First by *Archives of Neurology*.

Vitamin D is a steroid vitamin that promotes the intestinal absorption and metabolism of calcium and phosphorus. In recent years, low levels of vitamin D have been linked to a variety of [autoimmune conditions](#), including multiple sclerosis (MS, a disease of the central nervous system marked by numbness, weakness, loss of muscle coordination, and problems with vision, speech, and bladder control). However, the importance of vitamin D in monophasic or recurrent non-MS spinal cord diseases including transverse myelitis and neuromyelitis optica is unknown, according to background information in the article. Transverse myelitis (TM) is a disease of the spinal cord in which there is involvement of the [myelin sheath](#) that protects [nerve fibers](#); symptoms include back pain and weakness in the legs. Neuromyelitis optica (NMO) is a disease of the [central nervous system](#) that affects the [optic nerves](#) and spinal cord.

Maureen A. Mealy, R.N., B.S.N., of Johns Hopkins University, Baltimore, and colleagues investigated the association between low serum vitamin D levels and recurrent spinal cord disease. They analyzed data on vitamin D levels among 77 patients with monophasic (having only one phase or stage) and recurrent [inflammatory diseases](#) of the spinal cord, adjusting for season, age, sex, and race.

The study found that vitamin D levels were significantly lower in patients who developed recurrent spinal cord disease. "Our findings suggest that there may be an association between lower total 25-hydroxyvitamin D levels in patients with recurrent TM/NMO/NMO spectrum disorders as compared with their counterparts with monophasic disease," the authors report.

"This is consistent with other recurrent autoimmune conditions and points to a common link between low vitamin D levels and immunologic dysregulation," they write.

The authors suggest that future studies are needed to further assess the relationship between vitamin D and recurrent spinal cord disease. "This study provides a basis for a prospective trial of measuring 25-hydroxyvitamin D levels in these patient populations and assessing the influence of [vitamin D](#) supplementation on the frequency of relapses in those with recurrent inflammatory spinal cord disease," they conclude.

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