

How salt can trigger inflammation in multiple sclerosis

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Researchers at Yale have identified a high-salt environment as one of the contributing factors to the development of multiple sclerosis (MS).

In a new study published Oct. 29 in the journal *Nature Immunology*, they

report just how salt can trigger the potentially disabling autoimmune disorder.

First author Tomokazu Sumida, a researcher in the lab of David Hafler, the William S. and Lois Stiles Edgerly Professor of Neurology and professor of immunobiology, and colleagues report that cells in a high-salt environment show activation of the beta-catenin/Wnt signaling pathway. This pathway, which also been implicated in the development of cancer tumors, disrupts regulatory T cells and triggers inflammation.

The risk of developing MS is thought to increase by interaction between relatively common genetic variants and [environmental factors](#). In addition to salt, vitamin D deficiency, smoking, and obesity have been linked to development of MS, researchers say.

More information: Tomokazu Sumida et al. Activated β -catenin in Foxp3+ regulatory T cells links inflammatory environments to autoimmunity, *Nature Immunology* (2018). [DOI: 10.1038/s41590-018-0236-6](#)

Provided by Yale University

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