

Effect of salt on MS severity may be linked to genes

31st August, 2015



Previous research has linked high salt concentrations with exacerbations of MS. It is known that the incidence of MS and autoimmunity in general is increasing, and environmental factors such as diet may be one of the factors driving this change – especially dietary factors that have also rapidly changed, such as the increased intake of processed foods with a high salt content.

New results published in the [Journal of the Federation of American Societies for Experimental Biology](#) by researchers from

the University of Vermont in the USA have shed further light onto the role of salt in MS severity.

The researchers studied mice with MS-like disease to investigate the effect of a high-salt diet on disease course and immune system function. By comparing three groups of genetically different mice, the researchers were able to explore the role that genetics plays in determining response to external influences such as salt. They found that a high-salt diet caused mice in one genetic group to have more severe symptoms, whereas in a different genetic group, only the female mice were affected by salt.

These findings provide an additional piece of the puzzle to understanding how genetics and the environment interact to cause MS. Dietary factors such as salt may be important in changing a person's susceptibility to MS or the severity of their disease. These findings may also provide clues to understand why MS affects more females than males, by suggesting that perhaps there is a specific genetic factor making women more susceptible to certain environmental influences.

The researchers note that, while it is unlikely that salt is the primary cause of MS, it may be one contributing factor in MS progression. Since diet is easily modifiable, there is a great deal of interest in how dietary factors may affect the course and outcome of MS over time. However, the evidence for the benefit of following any specific diet is very limited, as it is very difficult to study dietary factors in humans due to the number of confounding factors. Further study will help to understand how salt and other dietary factors may affect MS.

MS Research Australia recommends people with MS consult with a healthcare practitioner prior to making any changes to their diet.