Childhood Obesity Increases the Risk of Multiple Sclerosis

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Childhood obesity is another potentially modifiable factor to reduce the risk of multiple sclerosis.

Obesity in adolescence has been suggested to be a risk factor for multiple sclerosis. In a new population-based, case control study in Norway and Italy, researchers examined whether body size influences the risk of MS. MS patients and randomly matched controls were sent questionnaires that asked about their body size before they received a diagnosis of MS.

A total of 953 patients and 1717 controls from Norway and 707 patients and 1333 controls from Italy responded and reported their body size. They chose from 9 body size pictures every fifth year from age 5 to 30 and at time of study.

In Norway a large body size increased the risk of MS, especially at age 25 (OR 2.21; 95% CI 1.09-4.46 for men and OR 1.43; 95% CI 0.90-2.27 for women). No significant associations were found in Italy.

In conclusion, obesity from childhood until young adulthood is a likely risk factor for MS with a seemingly stronger effect in Norway than in Italy.

WHAT IT MAY MEAN
This case control study confirms an association between obesity and MS risk in Norwegians, but not Italians. Obesity is linked to low vitamin D levels and hence obesity and MS risk may simply be a reflection of an association between MS and vitamin D. The fact that obesity was not linked to MS risk in Italy suggests vitamin D may be the reason. Native Italians who live closer to equator, and hence get better sunlight exposure, have higher vitamin D levels, which may protect them from getting MS. However, obesity is also associated with changes in estrogen levels and this may also contribute to MS risk.

At the end of the day childhood obesity is another potentially modifiable factor to reduce population risk of MS.

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