Coffee consumption and MS risk

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New research published last week has shown that consuming large amounts of coffee decreases the risk of developing MS. Two independent studies from the USA and Sweden, published together, have shown that compared with those who did not drink coffee, those who drank over 900 ml of coffee a day had a lower rate of developing MS.

The study, published in the *Journal of Neurology, Neurosurgery and Psychiatry*, surveyed a combined total of 2779 people with MS about a range of life-style factors, including their coffee consumption prior to the diagnosis of MS, and compared the results to 3960 people who did not have MS. The protective effects of coffee were seen irrespective of whether the high levels of coffee were consumed 5 or 10 years before the start of disease or at disease onset.

This new research agrees with previous research completed in animal models of MS-like illness which suggested coffee could be protective. However, previous research into coffee consumption and people with MS is not as conclusive. One study published in 2013, did not find that coffee consumption affected the risk of developing MS. This study had a prospective design and followed 238,371 people, of which 282 went on to have MS, tracking lifestyle factors and medical outcomes over many years. This type of study eliminates some of the potential bias that may be present in studies of lifestyle factors in people who already have a disease when they are asked to remember events and behaviours that occurred prior to their diagnosis.

Another Australian study also published in 2013 using the Ausimmune, examined a number of lifestyle factors and their effect of the risk of MS in 282 people who had only had a single demyelinating attack, a possible precursor to MS. This study found that while there was no significant relationship with increasing amount of coffee consumption at the lower levels – people who had had one attack were much more likely than controls to report having consumed more than five cups of coffee a day over the previous year.

Lifestyle factors are difficult to examine scientifically, since it can be hard to tease out which factor is causing the effect among the many exposures in an individual's life over time. This often leads to the variable results seen in different populations. All of the studies above controlled for a range of confounding lifestyle and demographic factors in their populations. The new study controlled for a number of factors known to influence MS, including sun exposure, smoking and body mass index.

It is known that caffeine has neuroprotective properties and also has some anti-inflammatory effects on cells grown in the laboratory. However, due to many active molecules present in coffee, further studies are needed to determine the true effect of coffee on MS risk and the mechanisms by which coffee might influence the risk of MS.