Inflammatory dietary pattern and risk of depression among women.

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Abstract

BACKGROUND: Inflammation is considered as a mechanism leading to depression, but the association between inflammatory dietary pattern and depression risk is unknown.

METHODS: Using reduced-rank regression, we identified a dietary pattern that was related to plasma levels of inflammatory markers (C-reactive protein, interleukin-6, tumor necrosis factor α receptor 2), and we conducted a prospective analysis of the relationship of this pattern and depression risk among participants in the Nurses' Health Study. A total of 43,685 women (aged 50-77) without depression at baseline (1996) were included and followed up until 2008. Diet information was obtained from food frequency questionnaires completed between 1984 through 2002 and computed as cumulative average of dietary intakes with a 2-year latency applied. We used a strict definition of depression that required both self-reported physician-diagnosed depression and use of antidepressants, and a broader definition that included women who reported either clinical diagnosis or antidepressant use.

RESULTS: During the 12-year follow-up, we documented 2594 incident cases of depression using the stricter definition and 6446 using the broader definition. After adjustment for body mass index and other potential confounders, relative risks comparing extreme quintiles of the inflammatory dietary pattern were 1.41 (95% confidence interval [CI], 1.22, 1.63; P-trend<.001) for the strict definition and 1.29 (95% CI, 1.18, 1.41; P-trend<.001) for the broader definition of depression.

CONCLUSIONS: The inflammatory dietary pattern is associated with a higher depression risk. This finding suggests that chronic inflammation may underlie the association between diet and depression.

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KEYWORDS: C-reactive protein; Cohort; Depression; Diet pattern; Inflammatory markers; Interleukin-6; Reduced-rank regression; Tumor necrosis factor α receptor 2; Women

Women who consume a diet defined as inflammatory—high in red meat, fish, sodas, and refined grains—have a higher risk for depression, compared with women who consume low amounts of these products. As part of the Nurses’ Health Study, researchers analyzed the diets of 43,685 women who were free of depression at the onset of the research and followed them for an average of 12 years. Using measurable lab values associated with depression as well as a physician’s diagnosis and use of antidepressants, they found that women who favored inflammatory food products were 41 percent more likely to be depressed.


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inflammatory diet linked to depression

The food you eat may be changing your mood by increasing inflammation in your brain. A remarkable study of over 40,000 women suggests a pro-inflammatory diet is linked to the development of depression.

Diet has been linked to depression but exactly how it could change your mood is uncertain and likely complex. One possibility is that a diet rich in foods that increase inflammation (such as sugar and red meat), and low in foods that reduce it (like vegetables and olive oil) could change your brain. Indeed diet can increase inflammation, and inflammation can adversely change your brain chemistry and function.

To see if there is a link the baseline diets, mood and levels of inflammatory markers were examined in 43,685 women (aged 50-77) without depression who were then followed up some 12 years later.

A dietary pattern relatively high in sugar-sweetened soft drinks, refined grains, red meat, diet soft drinks, margarine, other vegetables, and fish but low in wine, coffee, olive oil, green leafy and yellow vegetables was most strongly associated with inflammation. And this inflammatory dietary pattern was associated with a higher depression risk with a higher risk of depression the more inflammatory the diet.

“These results suggest that chronic inflammation may underlie the relationship between diet and depression” concluded the study investigators.

Reference:

Tags: Depression, Diet, Inflammation

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