

Good mood foods: Some flavors in some foods resemble a prescription mood stabilizer

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New evidence reveals the possibility of mood-enhancing effects associated with some flavors, stemming at least in part from natural ingredients bearing a striking chemical similarity to valproic acid, a widely used prescription mood-stabilizing drug, scientists reported here today. This effect joins those previously reported for chocolate, teas and some other known comfort foods.

They presented the study of more than 1,700 substances that make up the [flavors](#) of common foods at the 244th National Meeting & Exposition of the American Chemical Society, the world's largest scientific society. The meeting, expected to attract more than 14,000 scientists and others, continues here through Thursday.

"Molecules in [chocolate](#), a variety of berries and foods containing omega-3 fatty acids have shown positive effects on [mood](#). In turn, our studies show that some commonly used flavor components are structurally similar to valproic acid," said Karina Martinez-Mayorga, Ph.D., leader of a research team that has been studying the effects of flavors on mood. She described research done while working at the Torrey Pines Institute for Molecular Studies, and now is with the Chemistry Institute at the National Autonomous University of Mexico.

Sold under brand names that include Depakene, Depakote and Stavzor, valproic acid is used to smooth out the mood swings of people with manic-depressive disorder and related conditions.

"The large body of evidence that chemicals in chocolate, blueberries, raspberries, strawberries, teas and certain foods could well be mood-enhancers encourages the search for other mood modulators in [food](#)," noted Martinez-Mayorga.

Martinez-Mayorga pointed out that the need for a broad spectrum of mood modulators is fostering research not just in the pharmaceutical industry, but in the food and beverage industries as well. Food industry research, however, focuses on less-severe mood changes. People have recognized the mood-altering properties of various foods for years. Now Martinez-Mayorga's team, and other research groups, is seeking to identify the chemical compounds that moderate mood swings, help maintain cognitive health, improve mental alertness and delay the onset of memory loss.

Her study involved use of techniques of chemoinformatics — the application of informatic methods to solve chemical problems — to screen the chemical structures of more than 1,700 food flavor ingredients for similarities to approved antidepressants, marketed drugs and agents with reported antidepressant activity. The main result so far in the ongoing project involves [valproic acid](#). In the future, she said that the team plans to move from the area of analyzing the database to actually begin testing the flavor/mood hypothesis experimentally. The end result may be dietary recommendations or new nutritional supplements with beneficial mood effects, she added.

"It is important to remember that just eating foods that may improve mood is not a substitute for prescribed antidepressive drugs," Martinez-Mayorga cautioned. And for people not requiring medication, she notes that eating specific foods and living a healthful lifestyle can generally boost mood.

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