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Eating Poorly Can Make You Blue: Trans-Fats Increase Risk of Depression, While Olive Oil Helps Avoid Risk

Researchers from the universities of Navarra and Las Palmas de Gran Canaria have demonstrated that the ingestion of trans-fats and saturated fats increase the risk of suffering depression, and that olive oil, on the other hand, protects against this mental illness.

They have confirmed this after studying 12,059 SUN Project volunteers over the course of six years; the volunteers had their diet, lifestyle and ailments analyzed at the beginning of the project, over its course and at the end of the project. In this way the researchers confirmed that despite the fact that at the beginning of the study none of the volunteers suffered from depression, at the end of the study 657 new cases had been detected.

Of all these cases, the participants with an elevated consumption of trans-fats (fats present in artificial form in industrially-produced pastries and fast food, and naturally present in certain whole milk products) "presented up to a 48% increase in the risk of depression when they were compared to participants who did not consume these fats," affirmed Almudena Sánchez-Villegas, Associate Professor of Preventive Medicine at the University of Las Palmas de Gran Canaria, first author of the article.

In addition, the study demonstrated a dose-response relationship, "whereby the more trans-fats were consumed, the greater the harmful effect they produced in the volunteers," the expert stated.

Furthermore, the team, directed by Miguel Ángel Martínez-González, Professor of Preventive Medicine at the University of Navarra, also analyzed the influence of polyunsaturated fats (abundant in fish and vegetable oils) and of olive oil on the occurrence of depression. "In fact, we discovered that this type of healthier fats, together with olive oil, are associated with a lower risk of suffering depression," emphasized the researcher and director of the SUN Project.

150 million persons depressed worldwide

Thus, the results of the study corroborate the hypothesis of a greater incidence of the disease in countries of the north of Europe compared to the countries of the south,

where a Mediterranean dietary pattern prevails. Nevertheless, experts have noted that the incidence of the disease has increased in recent years, so that today some 150 million persons are affected worldwide, where it is the principal cause of loss of years of life in those countries with a medium-to-high per capita income.

This due, according to Almudena Sánchez Villegas, "to radical changes in the sources of fats consumed in Western diets, where we have substituted certain types of beneficial fats -- polyunsaturated and monounsaturated in nuts, vegetable oils and fish -- for the saturated and trans-fats found in meats, butter and other products such as mass-produced pastries and fast food."

In addition, the research -- published in the online peer reviewed journal PLoS ONE -- has been performed on a population with a low average intake of trans-fats, given that it made up only 0.4% of the total energy ingested by the volunteers. "Despite this, we observed an increase in the risk of suffering depression of nearly 50%. On this basis," concluded Miguel A. Martínez, "we derive the importance of taking this effect into account in countries like the U.S., where the percentage of energy derived from these foods is around 2.5%."

Finally, the analysis, headed by the University of Navarra and the University of Las Palmas de Gran Canaria, suggests that both depression as well as cardiovascular disease are influenced in a similar manner by diet, and might share similar mechanisms in their origin. This hypothesis is further suggested by numerous studies that indicate the harmful effect of trans-fats and saturated fats on the risk of cardiovascular disease.

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