

## Canola Oil vs. Olive Oil: Temple Studies Find One is Better for the Brain

By Stacey Burling, *Natural News*



All vegetable oils are not created equal when it comes to brain health, a pair of studies from Temple University suggest.

The studies, which looked at brain function and chemistry, were done in mice bred to develop Alzheimer's disease. The results should be viewed with caution because what happens in mice often does not happen in people.

Still, Domenico Pratico, a professor in Temple's Center for Translational Medicine who studies neurodegenerative diseases, said his team's work offers evidence that canola oil, which he said is often touted as a cheaper alternative to olive oil, is not as good for the brain.

The team published a study in June that found mice whose diet was supplemented for six months with extra virgin olive oil (EVOO) performed about 40 percent better on tests of working memory, which helps one hold on to information long enough to use it while performing a task, and in learning mazes. Compared to mice that ate only their normal chow, the EVOO-consuming mice also had 60 percent less abnormal amyloid, a protein that accumulates in the brains of those with Alzheimer's, and 40 percent less tau, the other key protein found in the brains of people with the degenerative disease. There was also evidence that connections between nerve cells were working better and that brain cells were clearing refuse more efficiently.

When the same test was done with canola oil, the results were strikingly different. "For us, it was a very big surprise what we found," Pratico said. That study was published Thursday in the journal *Scientific Reports*.

For one thing, the canola-fed mice gained weight, while the mice fed olive oil did not. All of the mice were fed the same number of calories. The mice that ate canola performed 40 to 45 percent worse on working memory tests than those that ate the regular diet. Short-term memory, which improved by 40 percent in the EVOO mice, was 50 percent worse in the canola mice than in control-group mice (those that got no additional oils). The connections between brain cells were considerably reduced in the canola mice. While tau was not affected, the mice that had eaten canola had more clumps of amyloid than the control mice.

#### **COURTESY OF LEWIS KATZ SCHOOL OF MEDICINE AT TEMPLE UNIVERSITY**

Domenico Pratico is a professor in the departments of pharmacology and microbiology and the Center for Translational Medicine at Lewis Katz School of Medicine at Temple University. Pratico said he considers the study a “red flag” for canola oil users, though he would not tell people to stop eating it. However, he said, he doesn’t think there’s adequate evidence to claim it’s a healthy alternative to olive oil.

In both studies, the mice ate the human equivalent of about one tablespoon of oil a day. Pratico now would like to study corn oil and a diet richer in animal fat. He also wants to alter doses of canola oil to see how much is needed to induce brain changes and whether changes are reversible.

As to why canola might affect the brain differently than olive oil, Pratico said he is not sure. He said olive oil is richer in phenolic compounds, which “are well known to have potent anti-inflammatory and antioxidant properties.”