

# Omega-3s reduce stroke severity

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A diet rich in omega-3s reduces the severity of brain damage after a stroke, according to a study conducted by Université Laval researchers. The team, co-directed by professors Jasna Kriz and Frédéric Calon, showed that the extent of brain damage following a stroke was reduced by 25% in mice that consumed DHA type omega-3s daily. Details of the study can be found on the website of the journal *Stroke*.

Researchers observed that the effects of [stroke](#) were less [severe](#) in mice that had been fed a diet rich in DHA for three months than in mice fed a control [diet](#). In mice from the DHA group, they saw a reduction in the concentrations of molecules that stimulate tissue inflammation and, conversely, a larger quantity of molecules that prevent the activation of cell death.

"This is the first convincing demonstration of the powerful anti-inflammatory effect of DHA in the [brain](#)," underscored Frédéric Calon of Université Laval's Faculty of Pharmacy. This protective effect results from the substitution of molecules in the neuronal membrane: DHA partially replaces arachidonic acid, an omega-6 fatty acid known for its inflammatory properties.

"The consumption of omega-3s creates an anti-inflammatory and neuroprotective environment in the brain that mitigates damage following a stroke," summarized Jasna Kriz, of Université Laval's Faculty of Medicine. "It prevents an acute inflammatory response that, if not controlled, is harmful to brain tissue."

Professor Calon believes that this anti-inflammatory effect is likely transferable to humans. "Since DHA is readily available, inexpensive, and reduces the risk of a number of health problems without causing significant side effects, the risk–benefit ratio tends to favor the regular consumption of fish or DHA," he concluded.

Provided by University Laval

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