

## Omega-3 may build grey matter

09/03/2007 - A study presented this week proposes a mechanism by which omega-3 intake could have a bearing on a person's mood and outlook.

In the past, animal studies have found that raising [omega-3](#) intake leads to structural brain changes. In humans a link between omega-3 and [mood](#) has been observed, but no mechanism for this has been identified.

Researchers from the University of Pittsburgh's Cardiovascular Behavioral Medicine Program conducted a study involving 55 healthy adults, and found that those who had high levels of omega-3 intake also had higher levels of grey matter in areas of the brain associated with emotional arousal and regulation.

The participants' average omega-3 intake was assessed through two 24-hour dietary recall interviews. Their grey matter volume was measured using high-resolution structural MRI.

Although the finding suggests that omega-3 may promote structural improvement in areas of the brain related to mood and emotions (the bilateral anterior cingulate cortex, the right amygdala and the right hippocampus), the researchers said that more research is needed to ascertain whether eating fish actually causes changes in the brain.

Researchers presented the new study this week at the annual meeting of the American Psychosomatic Society in Budapest, Hungary. It has not been published and NutraIngredients.com has not seen the full results.

It builds on a study researchers presented at the same meeting last year, in which they found that people who had lower blood levels of omega-3 were more likely to have a negative outlook and be more impulsive.

Those with higher blood levels were found to be more agreeable and less likely to report mild to moderate depression.