

Fish oil may help curb seizure frequency in epilepsy

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Low doses of fish oil may help to curb the frequency of epileptic seizures when drug treatment no longer works, suggests a small study published online in the *Journal of Neurology Neurosurgery & Psychiatry*.

But high doses were no better than dummy (placebo treatment), the findings indicated.

The omega-3 fatty acids found in [fish oil](#) are able to cross over from the bloodstream into heart cells where they work to stabilise heart rhythm and protect against heart attacks.

This is particularly important for people with epilepsy because they have a significantly higher risk of having a heart attack than those without the condition.

And experimental research indicates that omega 3 fatty acids can also cross over into the central nervous system, where they reduce the excitability of brain cells which trigger seizures.

But previous research looking at the impact of [high dose](#) fish oil on seizure frequency in people whose epilepsy no longer responded to treatment, found that it didn't affect seizure frequency.

The researchers in the current study wanted to know what difference, if any, low dose fish oil made to seizure frequency and/or cardiovascular health.

Twenty four people, whose epilepsy was no longer responsive to drugs were therefore given three separate treatments, each lasting 10 weeks, and separated by a period of 6 weeks.

These comprised: 3 capsules of fish oil daily (low dose) equivalent to 1080 mg omega-3 [fatty acids](#) every day, plus 3 capsules of corn oil (placebo); 6 capsules of fish oil daily, equivalent to 2160 mg every day; and 3 capsules of corn oil twice a day.

The average number of seizures among those taking low dose fish oil was around 12 a month. This compares with just over 17 for the high dose, and just over 18 for the placebo, equivalent to a fall of a third (33.6%) in the number of seizures while on the low dose.

Two people on the low dose were completely seizure free during the 10 week trial. No one taking the high dose fish oil or the placebo was seizure free.

Low dose fish oil was also associated with a modest fall in blood pressure of 1.95 mm Hg over the 10 week period, unlike high dose fish oil which was associated with an average increase of 1.84 mm Hg.

But fish oil was not associated with any changes in heart rate or blood fat levels, or severity of seizures.

The researchers caution that a much larger study is needed to confirm or refute these findings before any firm conclusions can be drawn, and recommendations made.

But they write: "Low dose fish oil is a safe and low cost intervention that may reduce [seizures](#) and improve cardiovascular health in people with epilepsy."

Provided by British Medical Journal

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