

Omega-3 fats do not protect against cancer: study

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Omega-3 fats do not protect against cancer—according to new research from the University of East Anglia.

Increased consumption of omega 3 fats is widely promoted globally because of a common belief that it will protect against, or even reverse, diseases such as cancer, heart attacks and stroke.

But two systematic reviews published today find that omega 3 supplements may slightly reduce coronary [heart disease](#) mortality and events, but slightly increase risk of [prostate cancer](#). Both beneficial and [harmful effects](#) are small.

If 1,000 people took omega 3 supplements for around four years, three people would avoid dying from heart disease, six people would avoid a coronary event (such as a [heart attack](#)) and three extra people would develop prostate cancer.

The sister systematic reviews are published today in the *British Journal of Cancer* and the *Cochrane Database of Systematic Reviews*.

Omega 3 is a type of fat. Small amounts are essential for [good health](#) and can be found in the food that we eat including nuts and seeds and [fatty fish](#), such as salmon.

Omega 3 fats are also readily available as over-the-counter supplements and they are widely bought and used.

The research team looked at 47 trials involving adults who didn't have cancer, who were at increased risk of cancer, or had a previous cancer diagnosis, and 86 trials with evidence on cardiovascular events or deaths.

More than 100,000 participants were randomised to consume more long-chain omega-3 fats (fish oils), or maintain their usual intake, for at least a year for each of the reviews.

They studied the number of people who died, received a new diagnosis

of cancer, heart attack or stroke and/or died of any of the diseases.

Lead author Dr. Lee Hooper, from UEA's Norwich Medical School, said: "Our previous research has shown that long-chain omega 3 supplements, including fish oils, do not protect against conditions such as anxiety, depression, stroke, diabetes or death.

"These large systematic reviews included information from many thousands of people over long periods. This large amount of information has clarified that if we take omega 3 supplements for several years we may very slightly reduce our risk of heart disease, but balance this with very slightly increasing our risk of some cancers. The overall effects on our health are minimal.

"The evidence on omega 3 mostly comes from trials of [fish oil](#) supplements, so health effects of oily fish, a rich source of long-chain omega 3, are unclear. Oily fish is a very nutritious food as part of a balanced diet, rich in protein and energy as well as important micronutrients such as selenium, iodine, vitamin D and calcium—it is much more than an omega 3 source.

"But we found that there is no demonstrable value in people taking omega 3 oil supplements for the prevention or treatment of cancer. In fact, we found that they may very slightly increase cancer risk, particularly for prostate cancer.

"However this risk is offset by a small protective effect on cardiovascular disease.

"Considering the [environmental concerns](#) about industrial fishing and the impact it is having on fish stocks and plastic pollution in the oceans, it seems unhelpful to continue to take [fish](#) oil tablets that give little or no benefit."

'Omega-3, [omega-6](#) and total dietary polyunsaturated fat on [cancer](#) incidence: systematic review and meta-analysis of randomised trials' is published in the *British Journal of Cancer* on February 29, 2020.

'Omega-3 fatty acids for the primary and secondary prevention of cardiovascular disease' is published in the *Cochrane Database of Systematic Reviews* on February 29, 2020.

More information: 'Omega-3, omega-6 and total dietary polyunsaturated fat on cancer incidence: systematic review and meta-analysis of randomised trials' is published in the *British Journal of Cancer* on February 29, 2020. [DOI: 10.1038/s41416-020-0761-6](https://doi.org/10.1038/s41416-020-0761-6)

'Omega-3 fatty acids for the primary and secondary prevention of cardiovascular disease' is published in the *Cochrane Database of Systematic Reviews* on 29th February 2020. [DOI: 10.1002/14651858.CD003177.pub5](https://doi.org/10.1002/14651858.CD003177.pub5)

Provided by University of East Anglia

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