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Intelligence

Can omega-3 fatty acids from fish eggs improve recovery and aging? Scientists aim to find out.

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By Responsible Seafood Advocate

Scientists to explore if omega-3 fatty acids derived from fish eggs can boost recovery and healthy aging, especially for women and older adults

Scientists from Anglia Ruskin University and Norwegian biotechnology company Arctic Bioscience are studying how omega-3 from herring fish eggs can help with exercise recovery and healthy aging, especially for women and older adults.

Omega-3 fatty acids are essential nutrients that can play an important role in maintaining overall health. However, the general population typically consumes few foods that are rich in omega-3, such as oily fish.

“Some studies suggest better absorption and improved health outcomes from marine-based phospholipids, although research is still in its infancy,” said Dr. Sanjoy Deb, lead researcher and Associate Professor in Exercise and Nutritional Science at Anglia Ruskin University (ARU). “Our Active Romega project should contribute significantly to this area of research.”

Scientists are exploring if omega-3 fatty acids derived from fish eggs can boost recovery and healthy aging, especially for women and older adults. Wikimedia Commons image.

The new three-year project, called Active Romega, is investigating the benefits of omega-3 phospholipid fish oil and proteins derived from herring roe, which are the eggs of the fish. Unlike other omega-3 supplements, herring roe omega-3 contains a higher concentration of docosahexaenoic acid (DHA) and specialized pro-resolving mediators (SPMs).

“One of the reasons herring roe omega-3 is unique is its higher concentration of DHA [docosahexaenoic acid] compared to EPA [eicosapentaenoic acid] – most fish oils have more EPA than DHA,” said Dr. Sanjoy Deb, lead researcher and Associate Professor in Exercise and Nutritional Science at Anglia Ruskin University (ARU). “And the oil is naturally rich in the metabolites of DHA and EPA, namely specialized pro-resolving mediators such as resolvins, protectins and maresins. Herring roe omega-3 also has a phospholipid chemical structure, rather than a more typical triglyceride structure.”

Can omega-3s slow down the aging process?

Study suggests omega-3s, vitamin D and strength training can slow biological aging and boost health in older adults.

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DHA and SPMs have been shown to have potent anti-inflammatory effects and are also believed to benefit muscle function, metabolism and cognitive function, which are all key to supporting a healthy lifestyle.

As part of the Active Romega project, researchers are focused on two key areas of study: one examining how herring roe omega-3 influences exercise metabolism and recovery in active women, and the other investigating its potential role in promoting healthy aging among older adults.

“The use of fish oils has shown promise across various health parameters, with emerging research indicating particular benefits for women and in supporting healthy aging,” said Deb. “This new partnership with Arctic Bioscience allows us to undertake robust research to explore the public health benefits of herring-derived omega-3, alongside exercise. This will be the first time this specific type of omega-3 has been tested to investigate its benefits in these areas.”

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