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Intelligence

Study finds Chicago parents lack omega-3s in their diets, raising risks for children's health

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By Responsible Seafood Advocate

Consuming insufficient levels of omega-3s can raise preterm birth risk, researchers warn

A recent Northwestern University study found that parents are consuming too few omega-3 fatty acids, nutrients essential for brain and heart health.

The research, which examined diets across every Chicago neighborhood, showed that parental intake falls below recommended levels, with women consuming even less than men – a gap that could have direct consequences for children's health. The study's findings, **published in *Nutrients* (https://www.mdpi.com/2072-6643/17/20/3277)**, focused on Chicago but are likely representative of parents nationwide.

Omega-3 fatty acids, particularly eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), are most abundant in seafood and found in smaller amounts in eggs, poultry and other foods. They are critical for brain and eye development, immune regulation and cardiovascular health.

A recent Northwestern University study found that parents are consuming too few omega-3 fatty acids, nutrients essential for brain and heart health. Photo by Ksenia Chernaya (https://www.pexels.com/photo/raw-fish-with-vegetables-put-on-cutting-board-near-apron-3952052/).

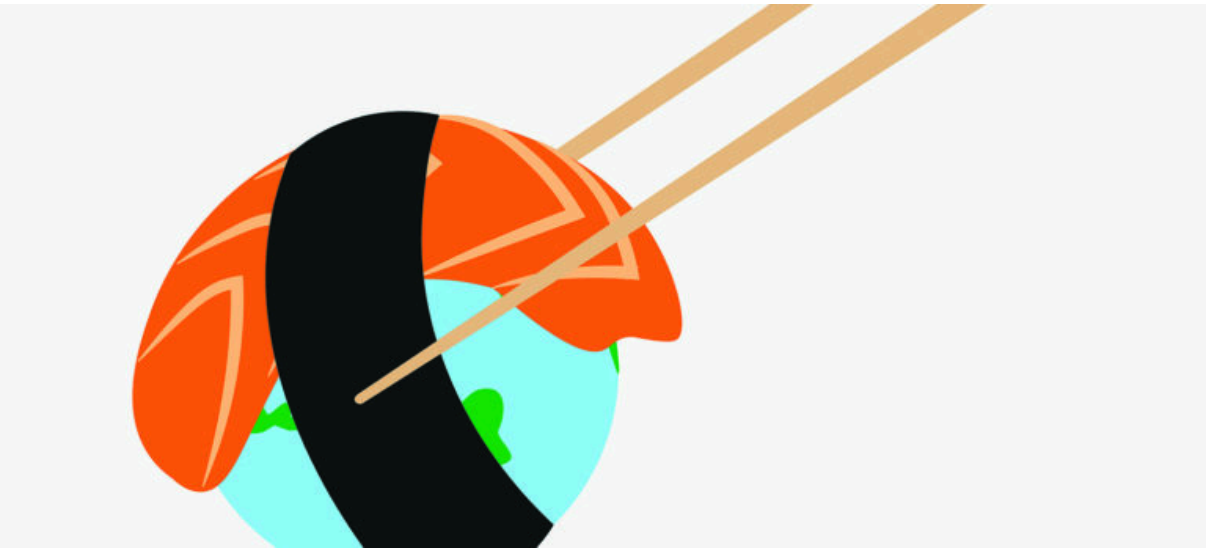
"As our children grow from infancy to early childhood, they are developing their own dietary habits, and a lot of that comes from our parents and what's happening in the household," said Dr. Daniel Robinson, corresponding author and associate professor of pediatrics at Northwestern University Feinberg School of Medicine. "Later, it becomes influenced by advertising and their peers, but our parents are an important early influence."

The study included 1,057 Chicago parents, each with at least one child at home, who completed a seven-question survey estimating their intake of EPA and DHA and use of DHA supplements between May and July 2022. Researchers drew participants from the ongoing Voices of Child Health in Chicago

Panel Survey and linked their addresses to the Childhood Opportunity Index, which measures neighborhood resources tied to children's health. Women were also asked whether they had ever experienced a preterm birth.

On average, parents consumed well below the 250 milligrams per day of EPA and DHA recommended by the Dietary Guidelines for Americans. Mothers reported an average intake of just over 130 mg per day, while fathers averaged just over 160 mg. The study did not assess children's diets.

"If we have parents whose general eating habits are that they consume lower-than-recommended amounts of omega-3 fatty acids, I expect that their child's eating habits probably wouldn't include higher amounts of seafood," said Robinson.



A wider view: Consensus on seafood's planetary and human health benefits

Several recent reports echo the message that eating sustainable seafood can help save the planet while making significant gains in public health.

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Parents with lower household incomes, certain self-reported racial and ethnic backgrounds, and those not taking DHA supplements were more likely to fall short of recommended levels. Women who had experienced premature births also reported consuming less omega-3 than those who had not — a finding the team described as especially relevant for child and maternal health.

Previous research has linked low omega-3 intake in mothers to a higher risk of premature birth. In this study, women who reported lower current consumption of EPA and DHA were more likely to have had a preterm birth in a past pregnancy, even after accounting for age, income and other demographic factors.

"We didn't measure this directly in our study, but if someone who has had a preterm birth in the past is now eating even less omega-3s, and they become pregnant again, they could be at increased risk of another preterm birth due to their diet," Robinson said. "Has anyone ever said, 'You've had a preterm birth before. One way to help prevent that might be to eat more seafood.'?"

Encouraging parents to increase their omega-3 intake could bring significant public health benefits, including lowering the risk of preterm birth, the researchers concluded. They noted that effective strategies should consider the "personal, social and cultural factors" that shape family diets and include tailored dietary guidance at both national and local levels, along with consistent nutrition counseling from health care providers.

"Health care providers should think about this problem longitudinally and not in our own silos of expertise," Robinson said. "The whole timeline – from before a woman becomes pregnant through when that child becomes an adult – needs to be considered."

Seafood, especially oily fish such as salmon, tuna, sardines, mackerel and trout, provides the "biggest bang for your buck," Robinson said. While DHA supplements can help increase levels, he added that the best way to consume it is along with other nutrients such as protein, vitamins and micronutrients found in whole foods.

Read the full study here (https://www.mdpi.com/2072-6643/17/20/3277).

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