

New Supplement Cuts Aggression by 28%: Study Reveals

Description

Maintain composure and consider integrating <u>omega-3</u> fatty acids into your regimen. These essential nutrients, available in dietary supplement form through fish oil capsules, are reputed to bolster both mental and physical health, and intriguingly, may also mitigate aggressive behavior, as suggested by a meta-analysis conducted in 2024.

Such assertions are not without precedent: omega-3 has been previously associated with the prophylaxis of schizophrenia, while displays of aggression and antisocial conduct are hypothesized to partially arise from nutritional deficiencies, as explored in a <u>recent study</u>. The interplay between our dietary choices and brain chemistry is increasingly gaining prominence in contemporary research.

A team of researchers at the University of Pennsylvania has expanded upon earlier, more limited investigations regarding omega-3 supplementation's impact on aggression. Their comprehensive metaanalysis scrutinized 29 randomized controlled trials encompassing a cumulative total of 3,918 participants.

Notably, across these trials, a discernible short-term reduction in aggression emerged, indicating a potential decrease of up to 28 percent across various demographic factors such as age, gender, and health status, in conjunction with treatment duration and dosage.

Flage diagram detailing steps of review process. Flow diagram of literature search leading to 28 suitable papers. (Raine & Brodrick, Aggression and Violent Behavior, 2024)

As stated by neurocriminologist Adrian Raine, upon the meta-analysis's release, "The time has come to implement omega-3 supplementation to reduce aggression, irrespective of whether the setting is the community, the clinic, or the criminal justice system."

The trials encompassed within this study, conducted from 1996 to 2024, had an average duration of 16 weeks and examined a broad spectrum of demographic groups, ranging from <u>children under the age of 16</u> to <u>older adults aged 50 to 60</u>.

Moreover, the observed reductions in aggression encompassed both reactive aggression (prompted by provocation) and proactive aggression (premeditated behavior). Prior to this analysis, the capability of omega-3 to influence these distinct forms of aggression was uncertain.



While additional large-scale studies extending over longer durations are imperative to further substantiate these findings, they nevertheless enrich our understanding of the cognitive benefits that omega-3 fatty acids may confer.

"At the very least," Raine posited, "parents in pursuit of treatment for an aggressive child should realize that, alongside any prescribed treatments, a weekly intake of additional fish could also contribute positively."



One Dietary Supplement Found to Reduce Aggression by Up to 28%



Natural sources of omega-3 in foods. (Ekaterina Kapranova/iStock/Getty Images Plus)

The research team postulates that omega-3's inherent properties, particularly its anti-inflammatory effects and its role in sustaining essential brain functions, may underlie its potential to modulate aggression. Despite lingering inquiries, they suggest a compelling case to pursue further investigation into this relationship.

Couple this data with <u>evidence</u> indicating that fish oil-derived medications can diminish the incidence of fatal cardiovascular events and other health complications, and the rationale for incorporating omega-3 into one's diet becomes notably compelling.

"Omega-3 is not a panacea that will entirely eradicate societal violence," Raine cautioned. "However, can it assist? Based on these enlightening findings, we firmly contend that it can, and we ought to commence action based on this newfound knowledge."

This research has been disseminated in Aggression and Violent Behavior.

An earlier version of this article was published in June 2024.

Vocabulary List:

- 1. **Prophylaxis** /,profi'læksis/ (noun): The action taken to prevent disease especially by specific means.
- Meta-analysis /'mɛtə ə'nælɪsɪs/ (noun): A statistical analysis that combines the results of multiple scientific studies.
- 3. Bolster /'boolstar/ (verb): To support or strengthen.
- 4. **Inherent** /In'hIərənt/ (adjective): Existing in something as a permanent essential or characteristic attribute.
- 5. Antisocial /,ænti'soʊʃəl/ (adjective): Contrary to the laws and customs of society; behavior that harms or lacks consideration for others.
- 6. **Modulate** /'mpd3vleit/ (verb): To adjust or adapt to a certain level or proportion.

Comprehension Questions

Multiple Choice



1. What type of nutrients are omega-3 fatty acids?

Option: Carbohydrates Option: Proteins Option: Fats Option: Vitamins

2. In what form are omega-3 fatty acids available as dietary supplements?

Option: Tablets Option: Capsules Option: Powder Option: Liquid

3. Who suggested that omega-3 fatty acids may help mitigate aggressive behavior?

Option: Adrian Raine Option: University of Pennsylvania researchers Option: Nutritionists Option: Children under 16

4. What is the average duration of the trials conducted regarding omega-3 supplementation's impact on aggression?

Option: 4 weeks Option: 8 weeks Option: 12 weeks Option: 16 weeks

5. Which distinct forms of aggression did the observed reductions encompass?

Option: Physical and Verbal Option: Reactive and Proactive Option: Impulsive and Planned Option: External and Internal

6. What is one cited property of omega-3 fatty acids that may underlie its potential to modulate aggression?

Option: Anti-microbial effects Option: Anti-inflammatory effects Option: Metabolic effects Option: Neurological effects



True-False

7. Omega-3 fatty acids have no association with mental and physical health.

8. The University of Pennsylvania researchers concluded that further investigation into omega-3 supplementation's impact on aggression is unnecessary.

9. Raine proposed that omega-3 supplementation should be implemented to reduce aggression in various settings.

10. The trials examining omega-3 supplementation were conducted over a 10-year period from 2014 to 2024.

11. Fish oil-derived medications have no impact on cardiovascular events according to the evidence presented.

12. Raine believes omega-3 fatty acids are a complete solution to eliminating societal violence. ESL-NEWS

Gap-Fill

13. The trials conducted from 1996 to 2024 had an average duration of ______ weeks.

14. The research team suggests further investigation into the relationship between omega-3 and

behavior.

15. Based on the findings, it is recommended to incorporate omega-3 into one's _____

16. Parents of aggressive children are advised to consider adding additional fish _____

to their diet.

17. The capability of omega-3 to influence distinct forms of aggression was previously

18. The rationale for incorporating omega-3 into one's diet becomes notably ______



Answer

Multiple Choice: 1. Fats 2. Capsules 3. University of Pennsylvania researchers 4. 16 weeks 5. Reactive and Proactive 6. Anti-inflammatory effects True-False: 7. False 8. False 9. True 10. False 11. False 12. False Gap-Fill: 13. 16 14. aggression 15. diet 16. intake 17. uncertain 18. compelling

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What term is used to describe something that has been explained in a clear and detailed manner?

Option: Absorption Option: Degeneration Option: Elucidated Option: Therapeutic

2. Which term refers to the origin and development of a disease?

Option: Mitigating Option: Pathogenesis Option: Intercellular Option: Taxonomic

3. Which term means inspiring fear or respect through being impressively large powerful intense or capable?

- Option: Formidable Option: Ecological Option: Phenotypic Option: Modulate
- 4. Which term relates to the healing of a disease or the treatment of a disorder?
 - Option: Intrinsic Option: Therapeutic Option: Delineate Option: Antisocial

5. What is the term used to describe a statistical analysis that combines the results of multiple scientific studies?

Option: Meta-analysis Option: Prophylaxis



Option: Mitigating Option: Inherent

6. Which term means to support strengthen or reinforce something?

Option: Obscured Option: Bolster Option: Emblematic Option: Augmented

7. What term describes a pattern of behavior that is harmful or disruptive to others in society?

Option: Exquisite Option: Antisocial Option: Artistry Option: Mortality

8. Which term means to regulate adjust or control something?

- Option: Discern Option: Modulate Option: Acquity Option: Vital
- 9. What term is used to describe something that is not clear or hidden from view?

Option: Inherent Option: Obscured Option: Delineate Option: Degeneration

10. Which term means to make something greater by adding to it?

Option: Augmented Option: Acquity Option: Vital Option: Mortality

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11	is the sharpness or keenness of thought vision or hearing.
12	refers to the deterioration or weakening of something especially over time.
13. Proper nutrition is	for maintaining good health.



14. Her ______ talent for music became evident at a very young age. 15. The scientist studied the ______ impact of deforestation on local wildlife. 16. The government introduced new policies to reduce infant ______ rates. 17. The study focused on the ______ characteristics displayed by the new species. 18. The artist was able to ______ the intricate details of the landscape in his painting. 19. The hiker was saved by the timely administration of ______ after being bitten by a snake. 20. Regular hand washing is a simple form of against the spread of infectious diseases. Matching Sentences (Match each definition to the correct word from the vocabulary list.) 21. The professor the complex theory to the students in a way that was easy to understand. 22. Communication between cells occurs through signaling molecules. 23. The bald eagle is of strength and freedom in the United States. 24. The researchers conducted a of existing studies to draw comprehensive conclusions. 25. Her talent for storytelling was and had been evident since she was a child. 26. The ability to subtle differences in color is essential for a painter. 27. The chef's culinary was evident in the beautifully presented dishes. 28. Planting more trees is a factor in reducing air pollution. 29. The jewelry was crafted with detail and precision. 30. The scientist carefully outlined the experimental before conducting the research.



Answer

Multiple Choice: 1. Elucidated 2. Pathogenesis 3. Formidable 4. Therapeutic 5. Meta-analysis 6. Bolster 7. Antisocial 8. Modulate 9. Obscured 10. Augmented

Gap-Fill: 11. Acquity 12. Degeneration 13. Vital 14. Intrinsic 15. Ecological 16. Mortality 17. Phenotypic 18. Delineate 19. Antivenom 20. Prophylaxis

Matching sentence: 1. Elucidated 2. Intercellular 3. Emblematic 4. Meta-analysis 5. Inherent 6. Discern 7. Artistry 8. Mitigating 9. Exquisite 10. Methodology

CATEGORY

1. Health - LEVEL6

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