Health & Nutrition Benefits of Farmed Salmon

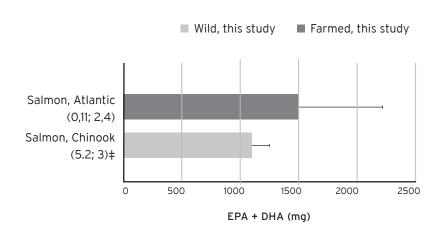


Fish, especially salmon, contain nutrients essential for overall health and wellness. The 2015-2020 Dietary Guidelines for Americans' recommends consuming about eight ounces (two to three servings) per week of a variety of seafood, including choices that are high in omega-3 fatty acids, like salmon. Most Americans eat far less seafood than recommended on a weekly basis.

According to the National Oceanic and Atmospheric Administration (NOAA), annual seafood consumption in the United States increased to 16 pounds in 2017², but dietary guidelines suggest this number should be closer to 26 pounds per year. The United States falls short on seafood consumption when compared to Japan, China, India, and the European Union.³

In addition to omega-3 fatty acids, farmed salmon is an excellent source of high-quality protein, vitamins, and nutrients such as vitamin D, vitamin B12, selenium, iron, calcium and iron.

Farmed vs. Wild Species⁹



^{*}USDA-ARS NND data is not specific to the species, but is the closest approximation.

Farmed Salmon Nutrition Snapshot

While there have been concerns around farmed salmon's wholesomeness, it is clear the avoidance of salmon in all forms due to potential contaminants, such as mercury or polychlorinated biphenyl (PCBs), is unfounded.⁴

Salmon is a good-fat food that is an excellent source of polyunsaturated fatty acids, such as the omega-3 fatty acids DHA and EPA. Docosahexaenoic acid, also known as DHA, is a type of omega-3 fatty acid that the human body cannot make in amounts that matter for health. Together with another omega-3 fatty acid called eicosapentaenoic acid (EPA), omega-3 fatty acids are beneficial throughout the lifespan and may help prevent heart disease⁵, depression⁶, dementia⁷, and arthritis.⁸

[†]There is no distinction between farmed and wild fish in the USDA-ARS NND; the number of data points from the database represents the total number for that species.



Heart Health

Heart disease is the #1 cause of death among Americans, taking almost 600,000 lives each year.¹⁰ However, eating one to two servings of fish and/or fish oil per week has been associated with a 36 percent reduction in risk of dying from heart disease.⁵

Furthermore, according to a recent advisory from the American Heart Association, evidence suggests the dietary intake of omega-3 fatty acids from seafood like salmon is associated with a lower risk of coronary heart disease and ischemic stroke.¹¹

In fact, in June 2019, the U.S. government officially awarded the qualified heart health claim to omega-3 fatty acids EPA and DHA found in salmon.¹² According to their announcement, the U.S. Food & Drug Administration determined that the current scientific evidence supports these claims, which assert that omega-3 fatty acids reduce the risk of hypertension and coronary heart disease (CHD) by lowering blood pressure.



Brain Health

Depression is one of the most common mental health conditions in the world.¹³ As such, research has shown that eating two to three weekly servings of fatty fish, like salmon, is associated with a 20 percent lower risk of depression.^{6.14}

While more research is needed, emerging evidence suggests that low fish and low DHA intake are associated with a higher risk of Alzheimer's disease (AD). Conversely, a higher intake of fish or omega-3 fatty acids appears to be associated with a decreased risk of cognitive decline, dementia or AD in the elderly.⁷



Aging

Eating fish may help you live longer. Older adults—who had the highest blood levels of omega-3 fatty acids, like those found in fish—lived, on average, 2.2 years longer after the age of 65 than those with lower levels.¹⁵



Arthritis

Research suggests people who regularly eat fish high in omega-3 fatty acids, like salmon, are less likely to develop Rheumatoid arthritis (RA). And because RA is an inflammatory condition, those who already have the disease may experience reduced joint swelling and pain when fatty fish is part of their regular diet.⁸



Eye Health

About 14 percent of adults in the United States have dry eye syndrome, a chronic condition in which decreased tear volume and quality leads to ocular surface inflammation and damage, causing discomfort and visual impairment.¹⁶ Fortunately, several studies suggest omega-3 fatty acids help protect adult eyes from dry eye syndrome.¹⁷



Prenatal & Child Health

Farmed salmon is an excellent source of omega-3 fatty acids to consume during all stages of life.

In fact, fish is extremely important for pregnant and breastfeeding moms. The Dietary Guidelines for Americans encourages women who are pregnant or breastfeeding and parents of young children to eat eight ounces of seafood each week. However, the actual amount of seafood the average mom-to-be consumes weekly in the United States is 1.8 ounces. 18

Infants and children would benefit from eating fish at least once per week. The omega-3 fatty acid DHA found in salmon is essential for development of a child's nervous system and vision¹⁹ and the World Health Organization says fish can be crucial to infant brain development.²⁰ Salmon is considered a low-mercury and high-DHA "best choice" for kids to incorporate in their diets.²¹

Farmed salmon is a great source of many nutrients. Americans are encouraged to eat more fish—two to three servings each week. The health and nutrition benefits from fish, and especially farmed salmon, are ever-evolving and beneficial to health across all life stages.

Health & Nutrition Benefits of Farmed Salmon, continued

2015-2020 Dietary Guidelines. (2015, December). Retrieved July, 2019, from https://health.gov/dietaryguidelines/2015/guidelines/

²Fisheries of the United States, 2017 Report. (2018, December 12). Retrieved July, 2019, from https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2017-report

3 Guillen, J., Natale, F., Carvalho, N., Casey, J., Hofherr, J., Druon, J., . . . Martinsohn, J. T. (2018). Global seafood consumption footprint. Ambio, 48(2), 111-122. doi:10.1007/s13280-018-1060-9

4Rembold;, C. M. (2004). The Health Benefits of Eating Salmon. Science, 305(5683). doi:10.1126/science.305.5683.475b

Mozaffarian, D., & Rimm, E. B. (2006). Fish Intake, Contaminants, and Human Health, Jama, 296(15), 1885, doi:10.1001/jama,296.15.1885

Grosso, G., Micek, A., Marventano, S., Castellano, S., Mistretta, A., Pajak, A., & Galvano, F. (2016). Dietary n-3 PUFA, fish consumption and depression: A systematic review and meta-analysis of observational studies. Journal of Affective Disorders, 205, 269-281. doi:10.1016/j.jad.2016.08.011

Cunnane, S., Plourde, M., Pifferi, E., Bégin, M., Féart, C., & Barberger-Gateau, P. (2009). Fish, docosahexaenoic acid and Alzheimer's disease, Progress in Lipid Research, 48(5), 239-256, doi:10.1016/j.plipres.2009.04.001

eTedeschi, S. K., Bathon, J. M., Giles, J. T., Lin, T., Yoshida, K., & Solomon, D. H. (2018). Relationship Between Fish Consumption and Disease Activity in Rheumatoid Arthritis. Arthritis Care & Research, 70(3),

9Cladis, D. P., Kleiner, A. C., Freiser, H. H., & Santerre, C. R. (2014). Fatty Acid Profiles of Commercially Available Finfish Fillets in the United States. Lipids, 49(10), 1005-1018. doi:10.1007/s11745-014-3932-5 1ºProducts - National Vital Statistics Reports - Homepage. (n.d.). Retrieved July 24, 2019, from https://www.cdc.gov/nchs/products/nvsr.htm

"Rimm, E. B., Appel, L. J., Chiuve, S. E., Dioussé, L., Engler, M. B., Kris-Etherton, P. M., Lichtenstein, A. H. (2018), Seafood Long-Chain n-3 Polyunsaturated Fatty Acids and Cardiovascular Disease; A Science Advisory From the American Heart Association. Circulation, 138(1). doi:10.1161/cir.00000000000574

¹²Center for Food Safety and Applied Nutrition. (n.d.). New Qualified Health Claims for EPA and DHA Omega-3. Retrieved from https://www.fda.gov/food/cfsan-constituent-updates/fda-announces-new-quali $fied\hbox{-}health\hbox{-}claims\hbox{-}epa\hbox{-}and\hbox{-}dha\hbox{-}omega\hbox{-}3\hbox{-}consumption\hbox{-}and\hbox{-}risk\hbox{-}hypertension\hbox{-}and$

¹³U.S Department of Health and Human Services. Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings. SAMHSA. Retrieved July, 2019, from https://www.samhsa. gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf

¹⁴Sanchez-Villegas, A., Henríquez, P., Figueiras, A., Ortuño, F., Lahortiga, F., & Martínez-González, M. A. (2007). Long chain omega-3 fatty acids intake, fish consumption and mental disorders in the SUN cohort study. European Journal of Nutrition, 46(6), 337-346, doi:10.1007/s00394-007-0671-x

15Mozaffarian, D., Lemaitre, R. N., King, I. B., Song, X., Huang, H., Sacks, F. M., . . . Siscovick, D. S. (2013). Plasma Phospholipid Long-Chain ω-3 Fatty Acids and Total and Cause-Specific Mortality in Older Adults. Annals of Internal Medicine, 158(7), 515. doi:10.7326/0003-4819-158-7-201304020-00003

16N-3 Fatty Acid Supplementation for the Treatment of Dry Eye Disease. (2018). New England Journal of Medicine, 378(18), 1681-1690. doi:10.1056/nejmoa1709691

¹⁷Ji, J. (2014). Omega-3 Essential Fatty Acids Therapy for Dry Eye Syndrome: A Meta-Analysis of Randomized Controlled Studies. Medical Science Monitor, 20, 1583-1589. doi:10.12659/msm.891364

18Lando, A. M., Fein, S. B., & Choinière, C. J. (2012). Awareness of methylmercury in fish and fish consumption among pregnant and postpartum women and women of childbearing age in the United States. Environmental Research, 116, 85-92. doi:10.1016/j.envres.2012.04.002

¹⁹Coletta, J. M., Bell, S. J., & Roman, A. S. (2010). Omega-3 Fatty acids and pregnancy. Reviews in obstetrics & gynecology, 3(4), 163-171.

20Report of the Joint FAO/WHO Expert Consultation on the Risks and Benefits of Fish Consumption. (2011). Food And Agriculture Organization Of The United Nations World Health Organization. Retrieved June 5, 2015, from http://www.fao.org/3/ba0136e/ba0136e00

²¹FDA Advice about Eating Fish and Shellfish. (2019, May 21). Retrieved May, 2019, from https://www.epa.gov/fish-tech/2017-epa-fda-advice-about-eating-fish-and-shellfish

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