

Let's talk about food and health of the mind

OMEGA-3 FATTY ACIDS & THE BRAIN



WHAT'S THE MECHANISM BEHIND OMEGA-3's?

- These benefits may be related to increased efficacy of serotonin in the brain or anti-inflammatory effects.
- Serotonin recognised as a 'happy chemical' as it contributes to wellbeing and happiness as a neurotransmitter that impacts levels of mood, anxiety and happiness.

WHAT DOES RESEARCH SAY?

- An omega-3 deficient diet tends to lower learning and memory function.
- Studies have found links between omega-3 consumption and anti-depressant effects, more significantly so in those already taking anti-depressant medications.
- Lower levels of serotonin have been associated with poor memory and low mood, which may lead to anxiety, aggression and low self-esteem.

WHAT ARE OMEGA-3 FATTY ACIDS?

- These are important polyunsaturated fats that can only be obtained from the diet.
- They form components of cell membranes that help preserve cell health via anti-inflammatory effects and facilitate communication between brain cells.
- They are essential components for brain function and development.



WHERE CAN THEY BE FOUND?

Foods rich with these fatty acids include, fatty fish, flaxseed oil, chia seeds, flaxseeds & walnuts.

WHAT ARE SOME RECIPE IDEAS?

Tuna Salad: Serves 4

- 425g tin of tuna (*canned tuna has comparable omega-3 content to fresh tuna)
- 400g can chickpeas
- 2 avocados
- 2 large tomatoes, cut into wedges
- A handful of cherry tomatoes
- 1 cucumber
- 1/2 red onion
- Drizzle with olive oil and lemon juice

Mix ingredients into a bowl and season with salt and pepper

HOW TO MEET THE RECOMMENDATIONS?

- Eat plenty of omega-3 rich sea animals at least once or twice a week
- Buy omega-3 enriched eggs if possible
- Use oils that contain low levels of omega-6, such as olive oil, to improve your omega 3: 6 ratio
- If needed, supplement with fish oil tablets

WHERE DO I GO FOR FURTHER INFORMATION?

- <https://www.blackdoginstitute.org.au/docs/default-source/factsheets/omega-3.pdf?sfvrsn=4>
- <https://www.healthline.com/nutrition/omega-3-fish-oil-for-brain-health>
- Hegde, M., Zanwar, A., & Adekar, S. (2016). Omega-3 Fatty Acids Keys to Nutritional Health (1st ed. 2016. ed.). Cham: Springer International Publishing : Imprint: Springer.
- Suominen-Taipale, A., Partonen, T., Turunen, A., Männistö, S., Jula, A., Verkasalo, P., & Chêne, G. (2010). Fish Consumption and Omega-3 Polyunsaturated Fatty Acids in Relation to Depressive Episodes: A Cross-Sectional Analysis (Fish and Depression). PLoS ONE, 5(5), E10530.
- Thesing, Carisha S., Bot, Mariska, Milaneschi, Yuri, Giltay, Erik J., Penninx, Brenda W.J.H., Psychiatry. Amsterdam Neuroscience - Mood, Anxiety & Psychosis. (2018). Omega-3 and omega-6 fatty acid levels in depressive and anxiety disorders. Psychoneuroendocrinology, 87, 53-62.

