

Omega 3 and Brain Injury Recovery

What is Omega 3?

Omega 3s are polyunsaturated fatty acids that are vital to our brains. There are three main types of Omega 3s these include ALA, DHA and EPA.

- ALA (Alpha-Linolenic Acid): This type is found in plants, such as flaxseed, chia seeds and walnuts.
- DHA: Found in fatty fish and seafood, DHA is particularly important for brain health and is a major component of the brain and the eyes.
- EPA: Also found in fatty fish, EPA plays a role in reducing inflammation and supporting heart health.

What role does Omega 3 play in brain health?

Omega 3 fatty acids play a crucial role in the structure and function of cells throughout the body. In the brain, Omega 3s are particularly concentrated in cell membranes, especially in neurons (brain cells). They are crucial for the normal development and function of the brain, and not only do they protect our brain cells from harm but also help bring them back to life if they get damaged, for example during a brain injury.

Additionally, Omega 3s help to create signals that reduce inflammation, which is an important factor in the recovery from a brain injury. They also help fight against oxidative stress caused by these injuries and enhance communication between the brain cells. Omega 3s have neuroprotective properties and have been found to reduce the secondary effects of trauma in the brain as a result of brain injury. Their amazing power to fix cell damage and prevent cell death shows just how important they are for keeping our brain healthy.

You may have also heard of Omega 6, another polyunsaturated fatty acid that must come from our diet, however in most of our diets the intake of Omega 6 is often a lot greater than our intake of Omega 3 which can cause an imbalance. Too many Omega 6s may counteract the benefits of Omega 3s which is why maintaining a balance between the two is key, this is called the Omega 3 to 6 ratio, which is ideally 2:1 Omega 6s to Omega 3s.

Tips

Balancing your Omega 3 to Omega 6 ratio

- Choose grass-fed and pasture-raised meats, eggs and dairy products.
 - Grass-fed and pasture-raised animal products have a higher amount of Omega 3s compared to grain or soy-fed animal products which have higher amounts of Omega 6s.
- Reduce your intake of refined oils.
 - Refined oils such as vegetable oil, sunflower oil, soybean oil etc. have no Omega 3s and are high in Omega 6s. Instead opt for extra virgin olive oil, coconut oil, avocado oil, ghee or grass-fed butter.
- Focus meals and snacks around whole foods
 - Omega 6s are especially high in processed and refined foods usually due to the large number of refined seed and vegetable oils found in them. Focusing our meals around whole foods can help to reduce our Omega 6 intake helping to balance out the Omega 3 to 6 ratio.

Eat seafood rich in Omega 3s at least twice a week

- Wild salmon
- Mackerel
- Sardines
- Anchovies
- Tuna
- Prawns

Add Omega 3s rich nuts and seeds to your meals

- Flax seeds
- Chia seeds
- Hemp seeds
- Walnuts

Tips

Consider taking an Omega 3 supplement

For those struggling to get enough food sources of Omega 3, a supplement can be a great option.

- Look for a supplement that contains both DHA and EPA, this can either be algae-based or fish oil-based.
- Look for a supplement with a 2:1 EPA to DHA ratio.
- Make sure the supplement is of high quality, including minimal ingredients and responsibly sourced seafood.

If you are taking medication, please consult your doctor before taking any food supplements.

About Megan

Megan is a certified health coach with a Master's of Science in Human Nutrition. She is passionate about how the foods we eat can affect our health and wellbeing, as well as finding ways to make healthy eating more delicious and convenient. She believes health and wellness should be accessible to all and needs a holistic approach that takes into consideration mind, body and spirit.

