



Role of DHA in Mental Health

Advika Gupta [#], Ashmita Nautiyal [#], Merin Lawrence [#], Sakshi Vashisth [#], Garima Mathur ^{*}

Department of Biotechnology, Jaypee Institute of Information Technology, A-10, Sec-62, Noida- 201307, Uttar Pradesh, India

[#]: Equal Contribution

Address for Correspondance: Garima Mathur, garima.mathur@jiit.ac.in; advika.gupta27@gmail.com; nautiyalashmita96@gmail.com; merinlawrence95@gmail.com; sakshivashisth96@gmail.com

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ABSTRACT: Essential polyunsaturated fatty acids (PUFAs) are critical nutritional lipids that must be obtained from the diet to sustain homeostasis. Omega-3 PUFAs are key components of bio membranes and play an important role in cell integrity, development, maintenance and function. DHA or Docosahexanoic acid is an essential omega-3 long chain polyunsaturated fatty acid (LCPUFA) which is avidly retained and uniquely concentrated in the nervous system, particularly in photoreceptors and synaptic membranes. Scientific and technological advancements have led to a significant rise in the life expectancy and thereby an increase in the number of people above the age of 65. Epidemiological evidences suggest that DHA and other PUFAs such as EPA have been having a neuroprotective effect on various neurological and neurodegenerative disorders (such as Alzheimer's and Parkinson's Diseases)¹. DHA has found to enhance the growth of neurons by increasing the neuron lengths of projecting neurons and increasing the number of dendrites in the neurons. DHA specifically, has been studied for its positive effects on depression because of its anti-inflammatory properties. Depression symptoms are often associated with differences in omega-3 FA intake particularly DHA and EPA and inflammation. Reports have shown significant improvement in depressive systems and their severity in Parkinson's patients taking DHA (and EPA) as supplements². DHA have also found to have positive impact on patients with MDD (Major Depressive Disorder) and Bipolar Disorder¹. This abstract highlights aging and the evolving studies on the significance of DHA in Alzheimer's disease, Parkinson's disease, and other brain disorders. DHA in the nervous system offers emerging targets for pharmaceutical intervention and clinical translation. © 2016 iGlobal Research and Publishing Foundation. All rights reserved.

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