

ZUZANNA GOLUCH-KONIUSZY, JOANNA FUGIEL

Department of Human Nutrition Physiology, Faculty of Food Science and Fisheries, West Pomeranian University of Technology in Szczecin, Papieża Pawła VI nr 3, 71-459 Szczecin, e-mail: Zuzanna.Goluch-Koniuszy@zut.edu.pl, Joanna.Fugiel@zut.edu.pl

THE ROLE OF DIET COMPONENTS IN SYNTHESIS OF SELECTED NEUROTRANSMITTERS

Summary

Neurotransmitters are chemical compounds, released from axon at the neuron ending upon appearance of depolarization wave, which have the ability to transmit impulses in nervous system. Disturbed synthesis of neurotransmitters in brain underlies one of the hypothesis concerning etiopathogenesis of mental disorders. Classical neurotransmitters are acetylcholine, amino acids (glutamic acid, gamma-aminobutyric acid) and biogenic amines (dopamine, adrenalin, serotonin and histamine). In their synthesis in brain significant role play: the amount and kind of consumed proteins being the source of some key amino acids (L-tyrosine, phenylalanine, tryptophan, glutamic acid, histidine), coal hydrates, fatty acids, vitamins (B1, B6, B9, B12, C, E), mineral components (Ca, Na, Mg, Fe, Mn, Zn, J) and choline.