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# Review Article on Microbiota Gut Brain Axis

**Miss. Apurva R. Mandlik, Mr. Pramod N. Sanap, Prof. Durgesh Pavle, Dr Panga Shyam Muthaiah**
N.J. Paulbudhe College of Pharmacy, Ahilyanagar

**Abstract**: *It has long been understood how crucial the gut-brain axis is to preserving homeostasis. However, the microbiota—the trillions of bacteria on and within our bodies—has emerged in the last 15 years as one of the major regulators of gut-brain function, which has led to an understanding of the significance of a unique microbiota-gut-brain axis.and psychiatric illnesses are increasingly adopting this axis. Through a variety of pathways, including the immune system, tryptophan metabolism, the vagus nerve, and the enteric nervous system, the microbiota and the brain can interact. These pathways involve microbial metabolites such peptidoglycans, short-chain fatty acids, and branched chain amino acids.Numerous factors, such as illness, the way a is born, the use of antibiotics, the type of nourishment that is given, environmental stressors, and host genetics, can affect the composition of the microbiota in the early stages of life. On the other hand, as people age, their microbial diversity decreases. Throughout life, stress in particular can have a major effect on the gut-brain-microbiota axis. Recent research has linked a wide range of illnesses, including schizophrenia, Parkinson's myelination, animal models have proved crucial. Furthermore, the field will be substantially improved by continuing translational human investigations. Future research will try to clarify microbial-based intervention and therapy approaches for neuropsychiatric illnesses, as well as the mechanisms behind the microbiota-gut-brain axis.*

**Keywords:** brain-gut; microbiome; neurogastroenterology; second brain; stress



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