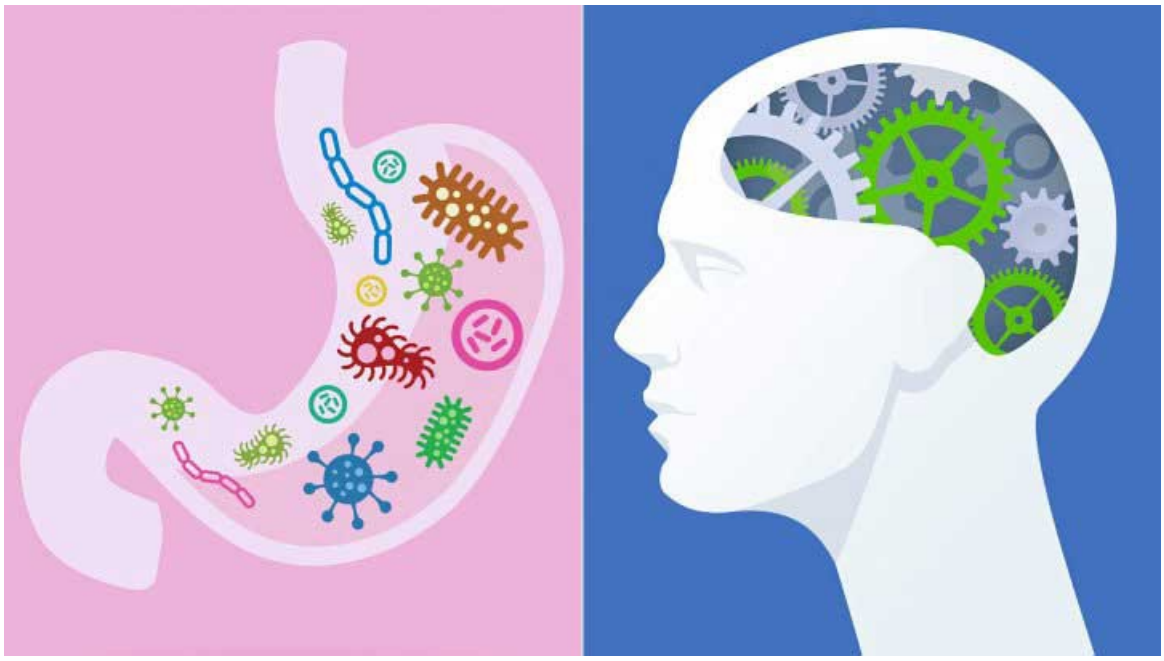
New research: gut bacteria and multiple sclerosis



Researchers at Harvard University Medical School, have published an exciting new scientific paper[1], showing a possible link between the gut microbiome (see Probiotics Learning Lab for more glossaryterms) and the rate of progression of multiple sclerosis symptoms in MS .sufferers

In MS the immune system attacks a protein called myelin, that ordinarily covers the nerve cells in the brain and spinal cord allowing for smooth transmission of electrical signals. Inflammation and damage to this protective myelin sheath results in degeneration of the nervous system and an .interruption of nerve impulses, resulting in a wide range of different symptoms

Impact of gut bacteria on inflammation of the central nervous system

The research has found that two proteins are responsible for either promoting or inhibiting inflammation within the Central Nervous System .(CNS), which leads to either the protection of, or damage to, nerve cells in the brain and spinal cord

These proteins (TGF alpha and VEGF-B) were found to be produced in response to the breakdown of dietary tryptophan by our gut bacteria. TGF alpha appears to have a protective effect on the CNS whereas VEGF-B increases inflammation and creates damage to the CNS. When .VEGF-B protein is elevated there is excessive inflammation and damage promoting a worsening of MS symptoms

Tryptophan is an essential amino acid that is present in many different protein foods, with good sources being: turkey, cottage cheese, eggs and .various nuts and seeds

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