## The Brain-Gut Connection for Mental Well-being

Have you ever wondered the reason behind feeling butterflies in your stomach? Or that sinking premonition feeling around your stomach when something unexpected happens? Several studies over the years have established the fact that the condition of the gut influences one's mental health. Human body consists of two brains. One is located in our head and the second one – in our guts. Both of these brains begin forming from the point an egg gets fertilized.

They develop from the same cluster of tissue wherein one section evolves into a central nervous system (brain) and another one into enteric nervous system (gut). Vagus Nerve, longest of all the cranial nerves, connects both these nervous system. Chemicals (hormones, neurotransmitters) that control the brain in the head are found in the gut brain as well. Due to this linkage between the brain and gut, researchers have concluded that a healthy gut helps in maintaining good mental and emotional health.

Human gut has a gut microbiota, which basically are clusters of several microorganisms living in our intestine. It contains tens of trillions of microorganisms, including at least 1000 different species of known bacteria with more than 3 million genes (150 times more than human genes). According to studies, presence or absence of gut microbiota affects the development of behaviour that causes neurochemical changes in the brain.

Gut microbiota execute the communication-function with the brain. Their presence or absence influences the central nervous system and its behaviour. Hence, it is necessary that a healthy communication between gut and brain be ensured for avoiding psychiatric illness. Additionally, about 70% of the cells that make up the body's immune system are found in the gut. Therefore, it is highly advisable to keep your gut in check.

Researchers at the University of California, Los Angeles (UCLA) assigned 45 women to receive either daily probiotic yoghurt, non-probiotic yoghurt or no yoghurt at all. When the women were examined after 4 weeks, it was found that the women in the probiotic yoghurt group had a more stable emotional response when exposed to a stressful situation.

Kirsten Tillisch who led the Californian researchers noted, "By changing the environment in the gut, we can actually change what happens in the brain".

Along with feeding your mind, feed your gut as well. There are innumerable ways to keep a healthy mind and gut simultaneously.

1) Include prebiotics and probiotics in your diet each day. Prebiotics are hard to digest carbohydrates that increase the number of gut bacteria in your intestine. Like raw oats, garlic, onions, bananas, unrefined wheat and barley etc. Probiotics are often called "good" or "helpful" bacteria because they help keep your gut healthy. Probiotics can be found in yoghurt and other fermented foods.

- 2) Don't skip breakfast. When you wake up in the morning, your blood sugar level is low due to which you feel lethargic and lazy. To boost up your energy, have breakfast daily. Messing up with your sugar level is messing up with your body and mind energy.
- 3) Lack of variety in the diet means lack of variety in our gut bacteria. Work on having a wholesome nutritious meal.
- 4) Avoid acidic foods. Keep a check on your coffee and alcohol consumption.
- 5) Eat fruits. Fruits are the best source of enzymes and vitamins.
- 6) Several herbs like Cinnamon, cardamom, coriander etc. come handy in feeding the good bacteria in the gut. They also eradicate the presence of unfriendly bacteria in your gut.
- 7) Decrease the level of stress hormones. Indulge in activities that you enjoy, sing, draw, dance.
- 8) Yoga and meditation are excellent ways to relax. Working out regularly boosts the presence of healthy hormones required for maintaining a healthy mind. It turns out they keep the gut happy too.
- 9) Keep your body and mind energy balanced by having several small meals throughout the day. A good metabolism is the key to excellent fitness of the being.
- 10) Keep a check on your digestion system. Have lots of water. Dehydration leads to several problems.

Sources Gut feelings: the future of psychiatry may be inside your stomach; Gut Brain; Gut Health http://fractalenlightenment.com/28429/life/the-brain-gut-connection-for-mental-well-being