

Curcumin Found to Prevent Brain Degenerative Diseases Including Parkinson's and Alzheimer's

By John Phillip, Natural News.com

Curcumin, the bioactive compound found in the Indian curry spice turmeric and commonly referred to as 'holy powder', has been used for centuries in folk medicine to treat wounds, infections, and other health problems. Today researchers are using the power of the evolving science of epigenetics to reveal how curcumin is crucial in the fight against many forms of cancer, as it causes metastatic cells to undergo programmed cell death, or apoptosis.

Researchers from Michigan State University, publishing the result of a study in the *Journal of Biological Chemistry* have found that this amazing natural compound is able to prevent the destructive formation of alpha-synuclein proteins that are the hallmark presentation in many neurodegenerative disease such as Parkinson's and Alzheimer's disease. Curcumin is one a very select group of structures that is able to cross the delicate blood-brain barrier to affect biochemical and electrical activities in the brain. The turmeric derivative has demonstrated the unique capability to prevent clumping or aggregation leading to disease development.

Curcumin aids protein folding to prevent brain tangles and degeneration

The team lead researcher, Dr. Basir Ahmad and scientists conducting the study commented *"Our research shows that curcumin can rescue proteins from aggregation, the first steps of many debilitating diseases... more specifically, curcumin binds strongly to alpha-synuclein and prevents aggregation at body temperatures."*

The team used precise lasers to study the split-second formation of proteins known as 'protein folding'. Normally, proteins are folded at lightning fast speed at the direction of genes and DNA sequences. Damage to DNA caused by poor diet and lifestyle factors from epigenetic alterations results in mis-folded proteins and neurodegenerative disease.

Researchers found that when curcumin attaches to alpha-synuclein it not only stops clumping, but it also raises the protein's folding or reconfiguration rate. By slowing the speed that the proteins form, curcumin effectively inhibits abnormal protein clumping to prevent tangles and damage to the nerve synapses. Chemical and electrical communications are retained that help to help prevent the early manifestation of Parkinson's disease.

Curcumin can be added to the diet with liberal use of the Indian curry spice in meal preparation. Many people do not enjoy the taste of curry infused foods. For those individuals, nutrition advisors recommend a standardized supplement (std. to 95% total curcuminoids for maximum bioavailability) providing 300 to 500 mg daily to prevent neurodegenerative decline.

Sources for this article include:

<http://news.msu.edu>

<http://www.medicalnewstoday.com/releases/243166.php>