

# Green Tea and Autoimmune Disease

Green tea health benefits have attracted wide interest from scientists and many of the studies show amazing results. This study, done by Linus Pauling Institute at Oregon State University, discovered green tea has a powerful ability to increase the number of "regulatory T cells" that play a key role in immune function and suppression of autoimmune disease.

Their study suggests that this may be one of the underlying mechanisms of the versatile health benefits of green tea. Also scientists say that pharmaceutical drugs are available for the same roles but they have problems with toxicity. On the other hand, green tea can provide a long-term, sustainable way to achieve the goal without toxicity.

The same scientific news from the institute continues:

"There are many types of cells that have different roles in the immune system, which is a delicate balancing act of attacking unwanted invaders without damaging normal cells. In autoimmune diseases, which can range from simple allergies to juvenile diabetes or even terminal conditions such as Lou Gehrig's disease, this process goes awry and the body mistakenly attacks itself.

Some cells exist primarily to help control that problem and dampen or 'turn off' the immune system, including regulatory T cells. The number and proper function of those regulatory T cells, in turn, is regulated by other biological processes such as transcription factors and DNA methylation.

In this study, OSU scientists did experiments with a compound in green tea, a polyphenol called EGCG, which is believed to be responsible for much of its health benefits and has both anti-inflammatory and anti-cancer characteristics. They found it could cause a higher production of regulatory T cells. Its effects were not as potent as some of those produced by prescription drugs, but it also had few concerns about long-term use or toxicity."

The laboratory studies showed that treatment with green tea EGCG significantly increased the numbers and frequencies of regulatory T cells found in spleen and lymph nodes, and in the process helped to control the immune response.

## reference:

*"Mechanism discovered for health benefit of green tea, new approach to autoimmune disease." News and Research Communications Oregon State University*