

# Support Your T-Regs Cells

“Reinforcing the principles that support T-Regs will not only prolong life but will enable patients to enjoy life. This is true prevention.”

In an odd way “T Regulatory Cells” or T-Regs are one of the most powerful forces in our body. Because the main function of “T-Regs” is to stop or suppress our own immune system from killing us as a result of inflammation and or tissue destruction. So, whether we are talking about a cytokine storm from viral infections, immune dysregulation from vaccines or autoimmunity, T-Regs are essential.

Autoimmune disease is considered the third leading cause of death, but some researchers consider Type II diabetes, many forms of vascular disease and some cancers, autoimmune conditions as well. Many researchers believe we are all marching toward autoimmunity due to the toxicity of our planet and as a natural part of aging. Which is one more reason to pay attention and support T-Reg cells. So let’s consider how to take care of our T regulatory cells or Tregs.

White blood cells are broken into two basic categories: the



innate immune system cells and the adaptive immune system cells. Innate cells include mast cells, natural killer cells, monocytes, macrophages, dendritic cells, neutrophils, eosinophils and basophils. The adaptive or acquired system has a group of cells called T cells or T lymphocytes which are a subset of lymphocytes.

T lymphocytes are produced in the bone marrow and then migrate and mature in the thymus. Newer research suggests that a significant number of undifferentiated T cells migrate to the gut. Undifferentiated cells are cells that can be modified or

changed by their environment. As such these undifferentiated cells are programmed by the cytokine environment of the gut to either become T regulatory cells (Tregs) or pro-inflammatory T cells like Th17. T- regulatory cells regulate the amount of inflammation and ultimately will assist or down regulate our immune system.

As a reminder, the old name for T regulatory cells was suppressor T cells. The undifferentiated cell programming process takes place in the mucosal lining of the gut, specifically in the gut associated lymphoid tissue or GALT for short. A healthy gut means healthy programming.

Once programmed, these T cells migrate throughout the body and are responsible for creating inflammation and tissue damage via Th17 cells or suppressing inflammation via the Treg cells. Let me say this another way because it's really important. T- regulatory cells or T-Regs dampen immune responses and are an active part in the prevention and suppression of autoimmune diseases or modify the effects of a potential "cytokine storm". Th17 cells are active in the promotion of autoimmunity and tissue destruction.

The goal then is to enhance T-Regs performance and dampen Th17 expression. How do we avoid Th17 expression? We want to make sure our patients are not deficient in vitamins A and D. Also, we need to make sure they are not suffering from dysbiosis or obesity. Dysbiosis and obesity are commonly understood as pro-inflammatory conditions. Interestingly both Obesity and Diabetes were major variables for COVID infections and mortality. Remember, adipose tissue is a precipitator of IL-6 which is pro-inflammatory. Obesity then is a pro-inflammatory marker.

How do we support our T-Reg cells? For starters, make sure we have adequate levels of vitamin D. Vitamin D down regulates the cytokine IL-6. As IL-6 goes up, so does Th17. The balance of Tregs and Th17 is determined in part by the amount of IL-6. A deficiency of vitamin D will cause IL-6 to increase; thereby decreasing Treg cells.

Vitamin A is also essential. Several studies show significant increases in T-Regs with vitamin A supplementation. This is the pre-formed vitamin A, not beta carotene. A healthy gut is the next step, so that means a hypoallergenic diet, the right fatty acids and probiotics. We also want to add nutrients that support inflammatory inhibition of NF-kappa B. So, things like green tea, selenium, zinc, vitamin E, etc. are important. Interestingly, these are some of the nutrients Dr. Vasquez suggests in his Anti-Viral Protocol. I love those kinds of collateral benefits: Patients

T-Regs are supported or enhanced, and viruses are reduced by 4 different mechanisms. You can see a link to his antiviral summary to the right. For the last 14 years, Dr. Vasquez has been promoting this 5-part protocol: a Paleo Mediterranean-type diet, a combination fatty acid supplement like Optimal EFAs, a comprehensive multiple like ProMulti-Plus, sufficient levels of vitamin D and probiotics.

The more I review research and listen to the biochemical gurus of today, the more I realize how profound his recommendations have been. Reinforcing the principles that support T-Regs will not only prolong life but will enable patients to enjoy life. This is true prevention. Thanks for watching, I look forward to being with you again next Tuesday.