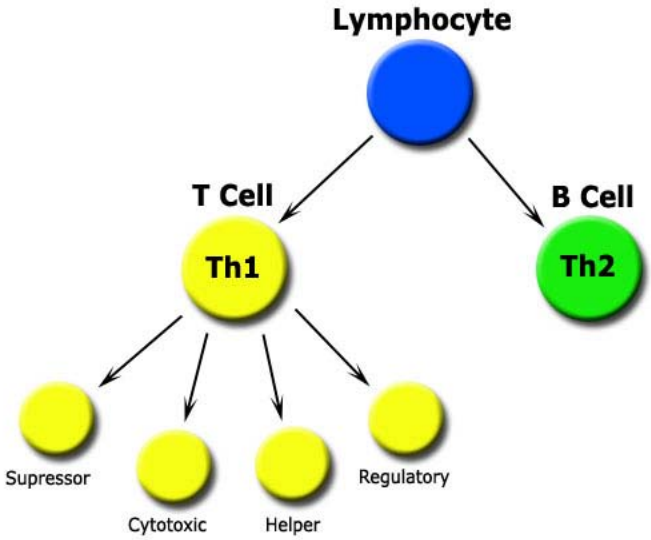
Hashimoto's

The Immune System

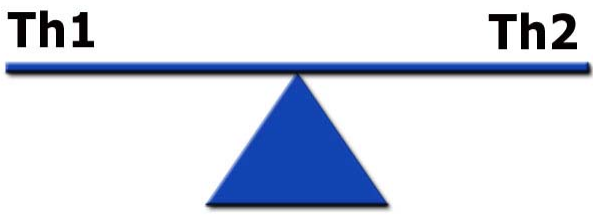
The immune system is composed of white blood cells, which are then differentiated into five types of immune cells. One of those is a group of cells called lymphocytes. Lymphocytes are then broken down even further into B cells, as well as T cells, which have their own subset of cells called T Helper cells, T Regulatory cells, Cytotoxic T cells and T Suppressor cells.



But here's what you really need to know:

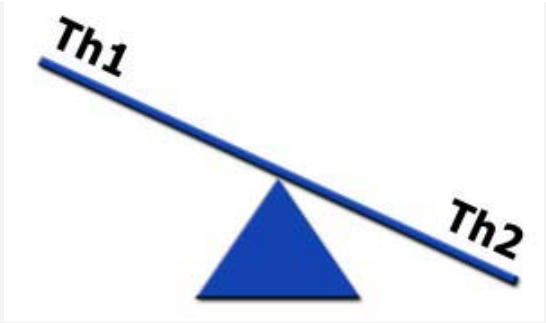
1. The initial T cell response is called a "Th1 response".
2. The secondary B cell antibody response is called a "Th2 response".

In a healthy body, there is balance between the Th1 (T cell) and Th2 (B cell) parts of our immune system.

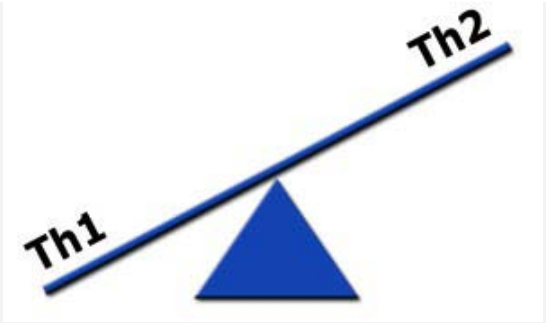


Autoimmune disease: An immune system out of balance

Virtually all autoimmune diseases -– conditions where the immune system begins to attack self-tissue –- have either Th1 or Th2 dominance. Autoimmune conditions generally have either a T cell upregulation and B cell suppression (Th1 dominant) or the opposite (Th2 dominant).



Th1 dominant: T cells up; B cells down



Th2 dominant: T cells down; B cells up

It's important for people with autoimmune disorders maintain Th1/Th2 balance. When the immune system is dysregulated and starts attacking body tissues, the more out of balance the immune system is, the more voraciously it will attack those tissues. For example, in someone with rheumatoid arthritis, an autoimmune condition where the immune system attacks cartilage, the more out of balance the Th1/Th2 system is, the more cartilage destruction will take place.

Hashimoto's

The number one cause of hypothyroidism in the United States is an autoimmune condition called Hashimoto's syndrome (Thyroiditis).

According to research, a number of natural compounds have a tendency to push either side of the Th1/Th2 balance:

Common TH1 Dominance Disorders

Organ-specific autoimmune disorders

Multiple Sclerosis
IBD/Crohn's Disease
Type 1 diabetes
Hashimoto's disease (Thyroiditis)
Graves disease
Psoriasis
Rheumatoid arthritis
Heliobacter Pylori- induced peptic ulcer

Common TH2 Dominance Disorders

Systemic autoimmune disorders

Allergies
Asthma
Chronic Sinusitis
Many Cancers
Hepatitis B and C
Ulcerative Colitis
Viral Infections
Systemic Lupus Erythematosus
Helminth infections

TH2 Stimulating Compounds

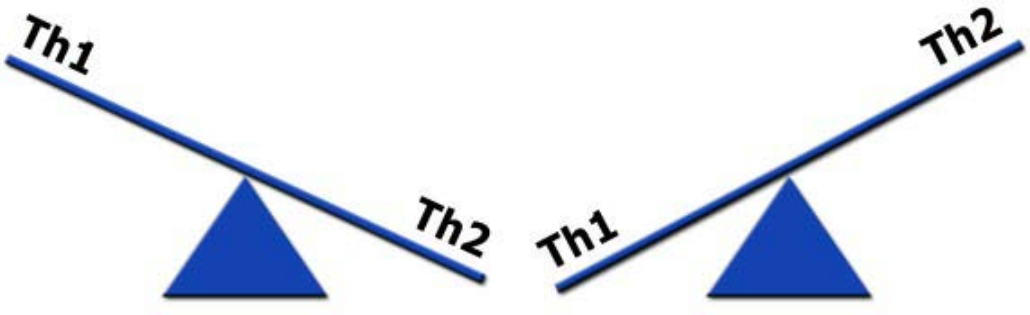
Green Tea, Resveratrol, Pycnogenol, Curcumin, Genistein, Quercitin.

Boost Th2

TH1 Stimulating Compounds

Echinacea, Astragalus, Licorice Root, Beta-Sitosterol, Ashwaganda, Panax Ginseng Mushrooms (Maitake, Reishi, Shiitake), Chlorella, Grape Seed Extract.

Boost Th1



There is a lot we still don't know about autoimmune conditions. If you see yourself on this list, don't jump to any conclusions or self-diagnose. You may take the wrong supplement and make yourself worse (i.e. a Th2 dominant MS patient who demyelinates themselves by taking green tea). Always check with a qualified practitioner as some people may have an atypical pattern.