

Th1/Th2 Balance --- Do the quacks have you confused?

1. Doing the LabCorp or Quest blood levels of the cytokines is an exercise in futility, frustration, and confusion since the cytokines are not active at the systemic level and do not show up in the blood with any consistency, even in the most severe inflammatory conditions such as rheumatoid arthritis and Crohn's.

There are many ways to estimate Th1/Th2 balance by inference. The white blood cell differential gives many clues. So does body temperature. So does the vitamin D 25-OH to 1, 25 di-OH ratio. Also your Dermographics test.

Many of the Th1 inflammatory cytokines will elevate body temperature. Patients with low Th1 reactivity almost always show low body temperature. [Side Note: That does not necessarily mean that a slightly elevated body temperature corresponds with excess Th1 reactivity, since some of the prostaglandins, when elevated, will raise body temperature even though they may be associated with a Th2 reactivity. --- In summary --- low body temperature very often means low Th1; elevated body temperature gives no specific information.]

In the blood chemistries, C-reactive protein is a direct indication of the Th2 cytokine interleukin 6. A high eosinophil to neutrophil ratio is another clue to a Th2 dominance, especially if accompanied by consistently low body temperature.

2. The 4 Immunoglobulin G subclasses, IgG1, IgG2, IgG3, and IgG4 are probably the most direct indicators of Th1 & Th2 reactivity, but these are not routine tests and can be a bit pricey.

Elevated IgG1 is associated with low IgE, low eosinophils, low Th2 cytokines IL-4, IL-5, and IL-13, and high Th1 IFN- γ . Elevated IgG2 means high IgE, high eosinophils, high Th2 cytokines IL-4, IL-5, and IL-13, along with low Th1 IFN- γ .

3. This Th1/Th2 business is "soooooo confusing" only because talking about Th1/Th2 ratio has become popular among all the monkey brains practicing alternative health care. They tend to want to label every patient as either Th1 dominant or Th2 dominant, when such dominance is not really all that common. The only consistently Th2 dominant conditions are postpartum symptoms, cancer in its relatively early stages, and the yeasty/allergy/asthma (true asthma, not what is commonly misdiagnosed as asthma)/IgE/IL-5/IL-13 types. The only consistently purely Th1 dominant

people are those with the Th1 autoimmune conditions such as rheumatoid arthritis, MS, and Type I diabetes.

Most other people who are sick have a combination of excess inflammatory cytokines from both the Th1 and Th2 group --- particularly Interleukin 6 (Th2) combined with TNF- α and Interleukin 1 or 2 (Th1).

A much better way to read immune system imbalances is by monitoring changes in your Dermographics and Edema (and perhaps our new topical niacin test), along with Anaerobic/Dysaerobic and Sympathetic/Parasympathetic Imbalances. ----- At some point in the not too distant future (--- sometime between 10 months and 10 years) NUTRI-SPEC will be coming out with a sixth Metabolic Imbalance, "Prostaglandin Imbalance". We have been talking about prostaglandins for over 30 years and we might be to the point where we can finally make it our sixth Imbalance. Excesses and deficiencies of PGE2, PGD2, thromboxane, PGI2, PGE1, and leukotrienes explain an awful lot of people's symptoms. We are working on a way to evaluate those with a combination of Dermographics, Edema, Body Temperature, and Topical Niacin, integrated with the findings on Sympathetic/Parasympathetic and Anaerobic/Dysaerobic Imbalance.