

Casual Friday Series

# **Anti-inflammatory diets: how do you pick? Part 2.**

A Biogenetix Clinical Presentation

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# Disclaimer

- *Information in this presentation is not intended, in itself, to diagnose, treat, reverse, cure, or prevent any disease. While this presentation is based on medical literature, findings, and text, The following statements have not been evaluated by the FDA.*
- *The information provided in this presentation is for your consideration only as a practicing health care provider. Ultimately you are responsible for exercising professional judgment in the care of your own patients.*



# Back in the Day: TH1 vs TH2

Intracellular

TH1

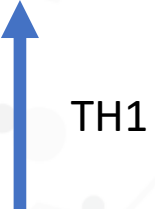
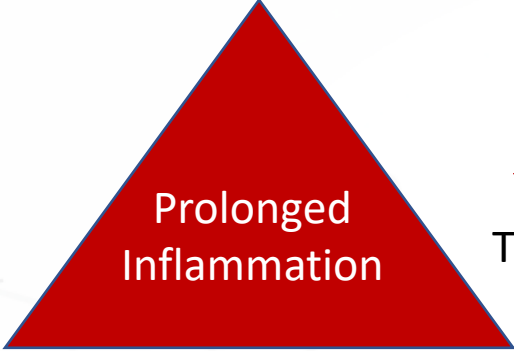
- Multiple sclerosis
- Hashimoto's
- Grave's
- Rheumatoid arthritis
- Lyme arthritis
- Psoriatic arthritis
- Contact dermatitis
- Type 1/1.5 diabetes
- Erythema nodosum
- Frequent spontaneous abortion
- Psoriasis
- Primary biliary cirrhosis
- Pulmonary sarcoidosis
- Crohn's disease
- Inflammatory bowel disease
- Etc.

Extracellular

TH2

- Asthma
- Atopic dermatitis
- Conjunctivitis
- Hyper eosinophilia
- Allergies
- Normal pregnancy
- Systemic lupus erythematosus
- Sclera derma
- Etc.





- Lifestyle:
- Food allergies
- mold
- LPS
- Blood Sugar Balance
- Alcohol
- Infections, etc.

TH17



Lupus



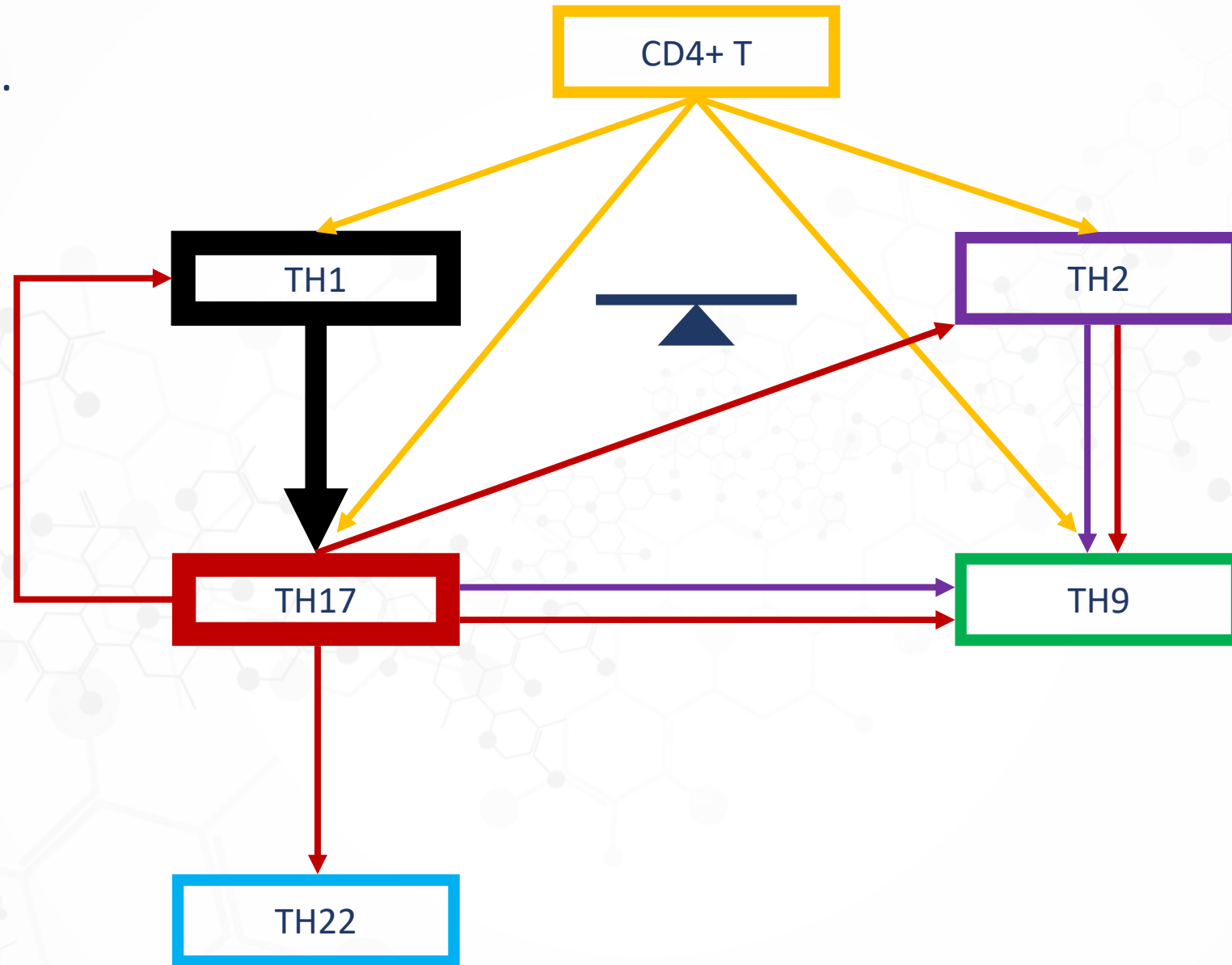
diabetes



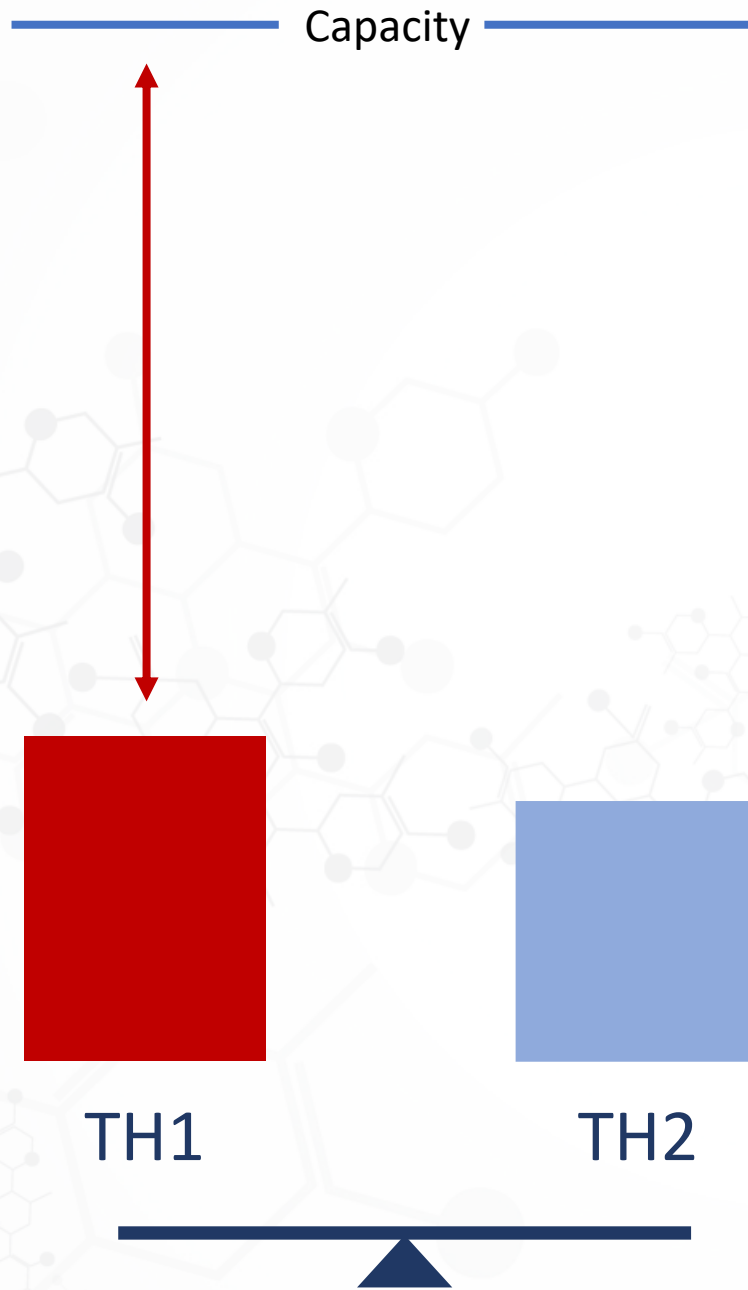
AI thyroid



An up-to-date understanding...



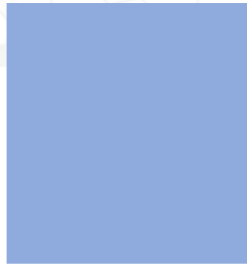
Concept of Elasticity...



Concept of Elasticity...

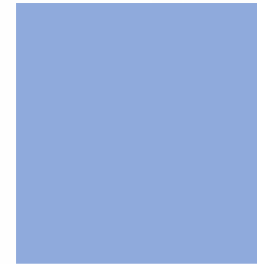
Capacity

Capacity



TH1

TH2



TH1

TH2





# Paleo diet: What is it and why is it so popular?

**Is the Paleo diet, an eating plan modeled on prehistoric human diets, right for modern humans?**

A paleo diet is a dietary plan based on foods similar to what might have been eaten during the Paleolithic era, which dates from approximately 2.5 million to 10,000 years ago.

A paleo diet typically includes lean meats, fish, fruits, vegetables, nuts and seeds — foods that in the past could be obtained by hunting and gathering. A paleo diet limits foods that became common when farming emerged about 10,000 years ago. These foods include dairy products, legumes and grains.

Other names for a paleo diet include Paleolithic diet, Stone Age diet, hunter-gatherer diet and caveman diet.





## What to eat

- Fruits
- Vegetables
- Nuts and seeds
- Lean meats, especially grass-fed animals or wild game
- Fish, especially those rich in omega-3 fatty acids, such as salmon, mackerel and albacore tuna
- Oils from fruits and nuts, such as olive oil or walnut oil

## What to avoid

- Grains, such as wheat, oats and barley
- Legumes, such as beans, lentils, peanuts and peas
- Dairy products
- Refined sugar
- Salt
- Potatoes
- Highly processed foods in general



## Some "Issues..."

### How Hunter-Gatherer Diets Vary by Geography

Percentage of Different Foods in Diet

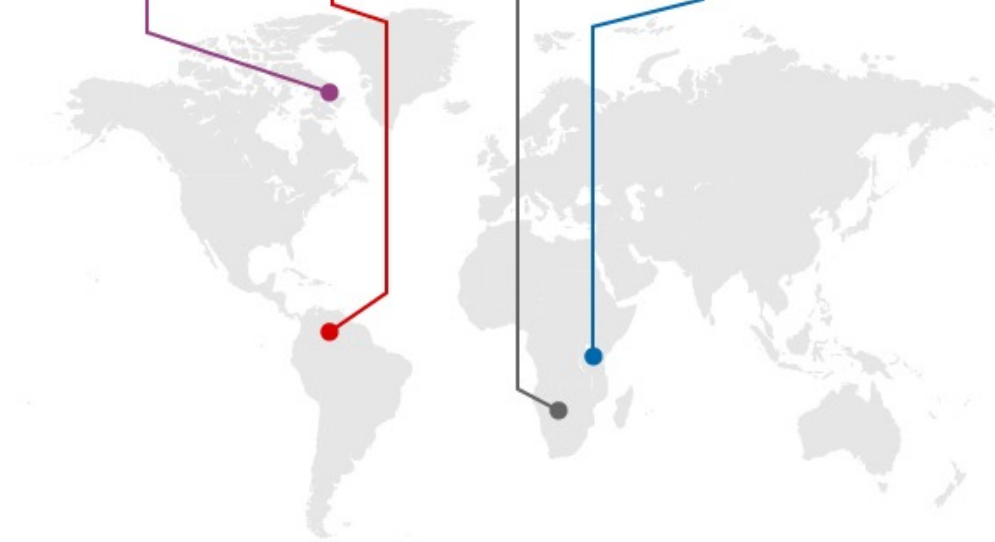
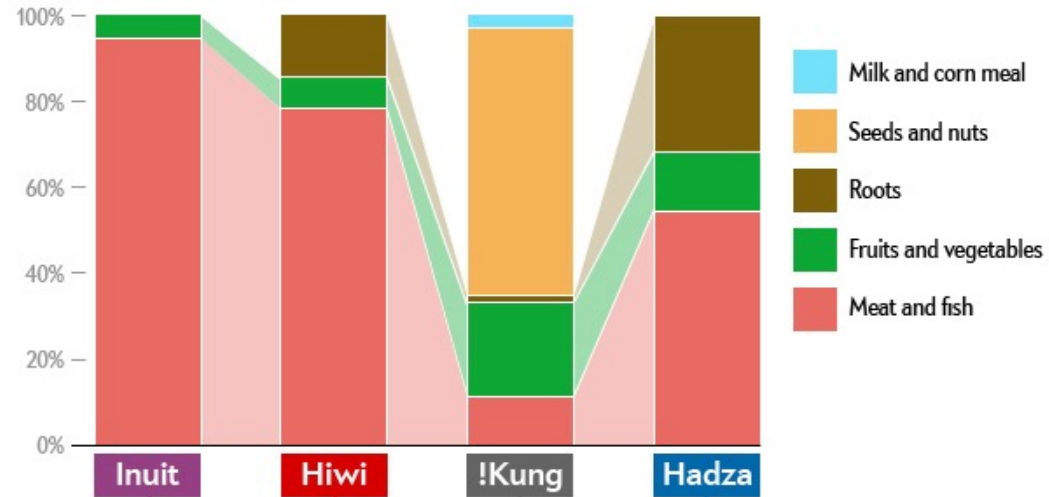


Image source: Jen Christiansen (Scientific American)



> [Lancet](#). 2013 Apr 6;381(9873):1211-22. doi: 10.1016/S0140-6736(13)60598-X.

Epub 2013 Mar 12.

## Atherosclerosis across 4000 years of human history: the Horus study of four ancient populations

[Randall C Thompson](#)<sup>1</sup>, [Adel H Allam](#), [Guido P Lombardi](#), [J Samuel Wann](#), [M Linda Sutherland](#),

**Findings:** Probable or definite atherosclerosis was noted in 47 (34%) of 137 mummies and in all four geographical populations: 29 (38%) of 76 ancient Egyptians, 13 (25%) of 51 ancient Peruvians, two (40%) of five Ancestral Puebloans, and three (60%) of five Unangan hunter gatherers (p=NS). Atherosclerosis was present in the aorta in 28 (20%) mummies, iliac or femoral arteries in 25 (18%), popliteal or tibial arteries in 25 (18%), carotid arteries in 17 (12%), and coronary arteries in six (4%). Of the five vascular beds examined, atherosclerosis was present in one to two beds in 34 (25%) mummies, in three to four beds in 11 (8%), and in all five vascular beds in two (1%). Age at time of death was positively correlated with atherosclerosis (mean age at death was 43 [SD 10] years for mummies with atherosclerosis vs 32 [15] years for those without;  $p < 0.0001$ ) and with the number of arterial beds involved (mean age was 32 [SD 15] years for mummies with no atherosclerosis, 42 [10] years for those with atherosclerosis in one or two beds, and 44 [8] years for those with atherosclerosis in three to five beds;  $p < 0.0001$ ).

**Interpretation:** Atherosclerosis was common in four preindustrial populations including preagricultural hunter-gatherers. Although commonly assumed to be a modern disease, the presence of atherosclerosis in premodern human beings raises the possibility of a more basic predisposition to the disease.



## Longevity Considerations....

- Chemicals
- Wild plant integrity
- Grittiness of mammals
- Fishes
- Hunt% vs gather%
- Oral Hygiene





Randomized Controlled Trial > *Diabetologia*. 2007 Sep;50(9):1795-1807.

doi: 10.1007/s00125-007-0716-y. Epub 2007 Jun 22.

## A Palaeolithic diet improves glucose tolerance more than a Mediterranean-like diet in individuals with ischaemic heart disease

S Lindeberg <sup>1</sup>, T Jönsson <sup>2</sup>, Y Granfeldt <sup>3</sup>, E Borgstrand <sup>2</sup>, J Soffman <sup>2</sup>, K Sjöström <sup>2</sup>, B Ahrén <sup>2</sup>

**Methods:** Twenty-nine patients with ischaemic heart disease plus either glucose intolerance or type 2 diabetes were randomised to receive (1) a Palaeolithic ('Old Stone Age') diet (n = 14), based on lean meat, fish, fruits, vegetables, root vegetables, eggs and nuts; or (2) a Consensus (Mediterranean-like) diet (n = 15), based on whole grains, low-fat dairy products, vegetables, fruits, fish, oils and margarines. Primary outcome variables were changes in weight, waist circumference and plasma glucose AUC (AUC Glucose(0-120)) and plasma insulin AUC (AUC Insulin(0-120)) in OGTTs.

Read: "Scientists shoot themselves in both feet"



## The Beneficial Effects of a Paleolithic Diet on Type 2 Diabetes and Other Risk Factors for Cardiovascular Disease

[David C. Klonoff, M.D., FACP](#)

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The Jönsson study was the first to assess the potential benefit of the Paleolithic diet compared to a diabetes diet for patients with T2DM.<sup>1</sup> This pilot crossover study evaluated 13 subjects with T2DM on oral agent therapy. Subjects consumed, for three months each, either a Paleolithic diet followed by a diabetes diet or the same two diets in the opposite order for three months each. Compared to the diabetes diet, the Paleolithic diet resulted in statistically significant lower mean values of hemoglobin A1c, triglycerides, diastolic blood pressure, weight, body mass index, and waist circumference, while mean values for high-density lipoprotein were higher. The larger decrease of fasting plasma glucose following the Paleolithic diet nearly reached statistical significance, and systolic blood pressure also tended to decrease more following the Paleolithic diet. Ingestion of a Paleolithic diet (compared to a diabetes diet) did not result in a significant reduction in the area under the curve between 0 and 120 min for glucose during a 75 g oral glucose tolerance test, and that measure had been a prespecified endpoint.

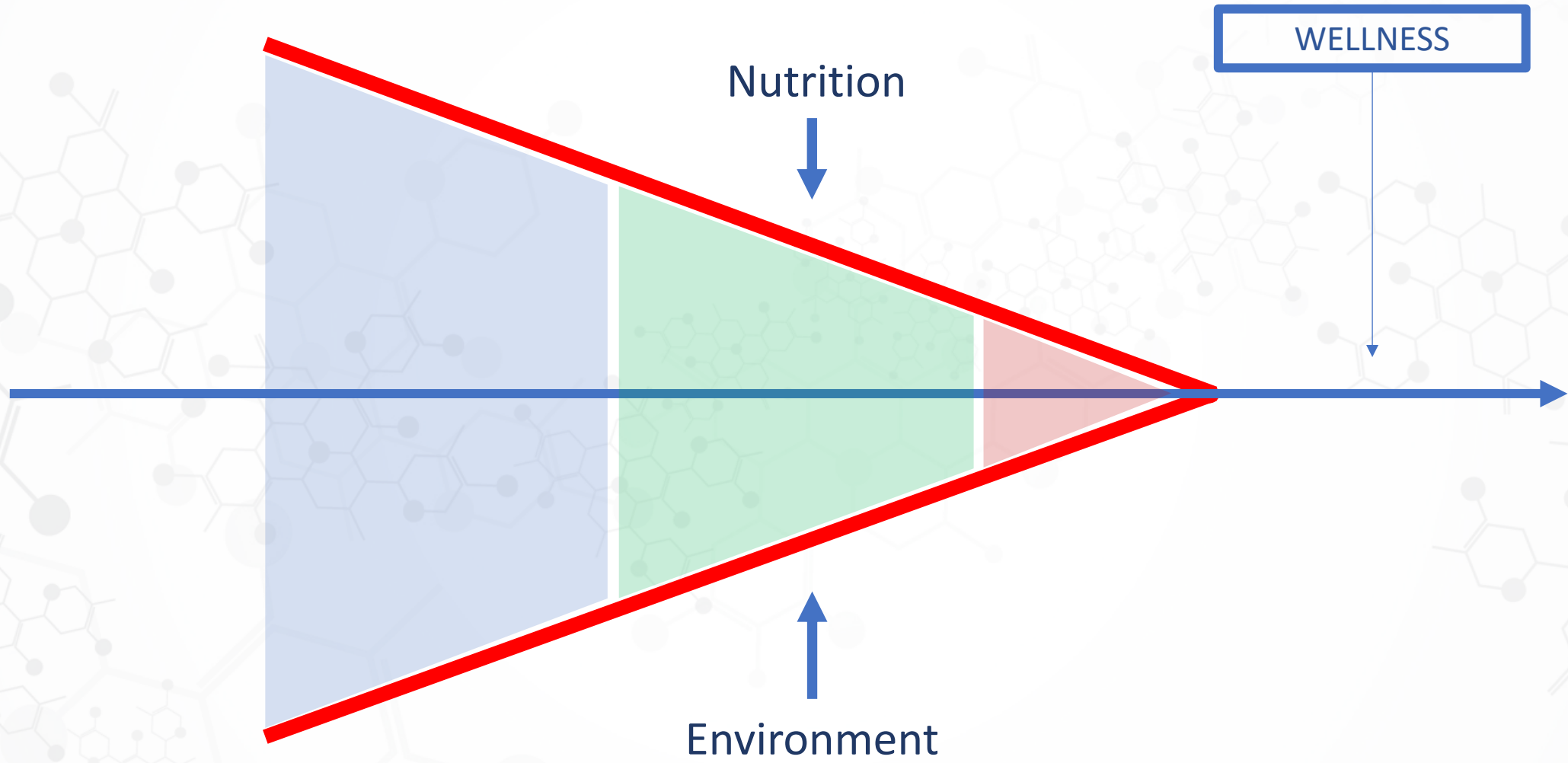




Progress for chronic disease patients comes down to this one question: What are we asking the “Diet” to do?



# Protocols

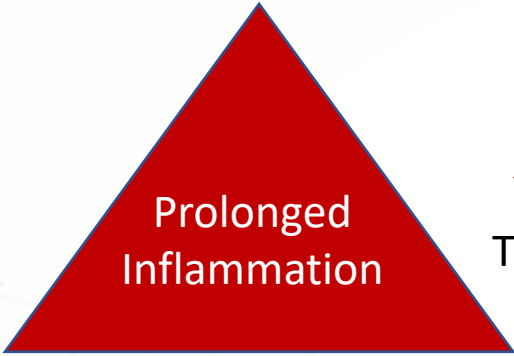


WELLNESS

Nutrition

Environment





TH17

Lupus

diabetes

AI thyroid

TH1

- Lifestyle:
- Food allergies
- mold
- LPS
- Blood Sugar Balance
- Alcohol
- Infections, etc.



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