

Dr. Nasha Winters, ND, FABNO, Executive Director & Co-Founder

# Tackling The Terrain: From Guessing To Addressing

IPM Congress  
2024 Workshop Programme



# Disclosures

All information shared is for educational purposes only. NO part of this presentation may be copied or shared with others without permission. This is copyrighted material.

I receive royalties for my book, “The Metabolic Approach to Cancer”

I receive a licensing fee for my course work for clinicians and patient advocates from MTIH

I receive a fee for service for consulting with researchers and clinicians worldwide about metabolic oncology

I receive honorariums for speaking engagements

# LEARNING OBJECTIVES:

- Understand Health as a Continuum
- Defining the Concept of Terrain
- How to Take Inventory of Your Terrain
- Implementing Top Strategies to Enhance Terrain Health and Cancer Prevention

# OUTLINE:

- Defining the Concept of Terrain
- Exploring Your Terrain
  - Drops in Your Mitochondrial Bucket
  - The Terrain Ten™ Questionnaire
  - Understand the Aspects of Your Terrain That May Impact Disease Progression *OR* Health Creation
- Test, Assess, Address™, Don't Guess!

# Health:

*(noun)*

Merriam-Webster's definition:

- The condition of being sound in body, mind, or spirit;
- The general condition of the body;
- Flourishing condition: well-being;
- A toast to someone's health or prosperity

# Terrain Tells The Story

Terrain Ten Questionnaire



# Straight out of ChatGPT--- How to explain Terrain Theory of Health to Medical Practitioners:

The terrain theory of health is a contrasting perspective to the more widely accepted germ theory of disease. It suggests that the internal condition of the body, known as the "terrain," plays a crucial role in determining whether disease-causing microbes can thrive and lead to illness.

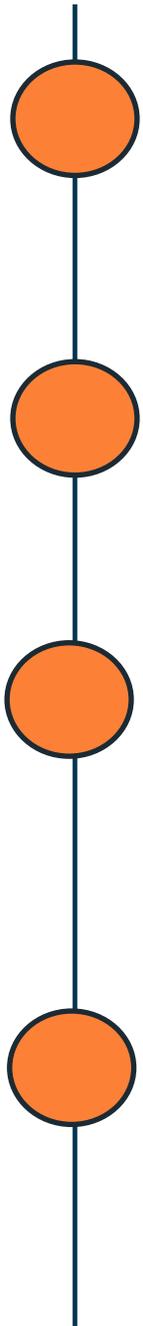
1. **Start with a brief history:** Begin by mentioning the historical context of the terrain theory. It was initially proposed by French scientist Antoine Béchamp in the 19th century, in opposition to Louis Pasteur's germ theory. Highlight that both theories have coexisted in medical discussions, but the germ theory has largely dominated modern medicine.
2. **Describe the key concept:** Explain that the terrain theory emphasizes the internal environment of the body as a determining factor in health and disease. It suggests that a strong and balanced internal terrain can resist pathogens and maintain health, while a weakened or imbalanced terrain provides a more favorable environment for pathogens to proliferate, leading to illness.
3. **Draw a comparison with germ theory:** Briefly introduce germ theory and its main premise: that diseases are primarily caused by specific microorganisms (germs) invading the body from external sources. Acknowledge that germ theory has led to significant advances in medicine, including the development of antibiotics and vaccinations.
4. **Highlight the relationship between terrain and microorganisms:** Emphasize that the terrain theory doesn't deny the existence or impact of microorganisms. Instead, it argues that the presence of microbes alone may not be sufficient to cause disease. It's the interaction between the microbes and the internal terrain that ultimately determines whether illness occurs.
5. **Factors influencing the terrain:** Explain that various factors contribute to the condition of the internal terrain, including nutrition, stress, lifestyle choices, genetics, and exposure to toxins. These factors can influence the body's pH balance, immune system function, and overall health status.
6. **Use real-world examples:** Provide some examples or scenarios to illustrate the terrain theory in action. For instance, compare the resistance to a common cold between two individuals: one with a strong immune system due to a healthy lifestyle and another with a compromised immune system due to poor nutrition and high stress levels.
7. **Acknowledge criticisms and limitations:** Be open about the criticisms of the terrain theory, such as the lack of concrete evidence supporting its claims compared to the vast body of research supporting germ theory. Address these concerns objectively while also noting that exploring alternative perspectives can lead to a broader understanding of health and disease.
8. **Encourage critical thinking:** Conclude by encouraging medical practitioners to keep an open mind and consider multiple viewpoints when approaching patient care. Remind them that a comprehensive approach to medicine involves understanding both the terrain and germ theories, as well as how they might intersect in various medical conditions.

**SOURCE:**

<https://www.sott.net/article/321987-Thanks-Big-Pharma-for-the-Mitochondrial-collateral-damage>

# MITOCHONDRIA





## HUNTER GATHERER



## NEOLITHIC FARMING



## MODERN HUMAN



## POST MODERN HUMAN



# THE EVOLUTION OF FOOD

# Carcinogens

Heavy Metals

BPA

Light Exposure

Dioxins

Fragrance

Artificial Flavoring and Coloring

Carrageenan

Mycotoxins

Tobacco

Alcohol

PCB's

Processed Meat

Engine Exhaust

Ultraviolet Rays

Partially Hydrogenated And Seed oils

Sitting

EMF's

Formaldehyde

Artificial Sweeteners

Viruses

Pesticides

Glyphosate

Benzoate (sodium benzoate)

Fried/Grilled Foods (acrylamide)

Asbestos

Coal-fired Plants (mercury)

Radon

Wood Smoke

Pollution

Chloroform

# Drivers Impacting Metabolic Health and Oncology

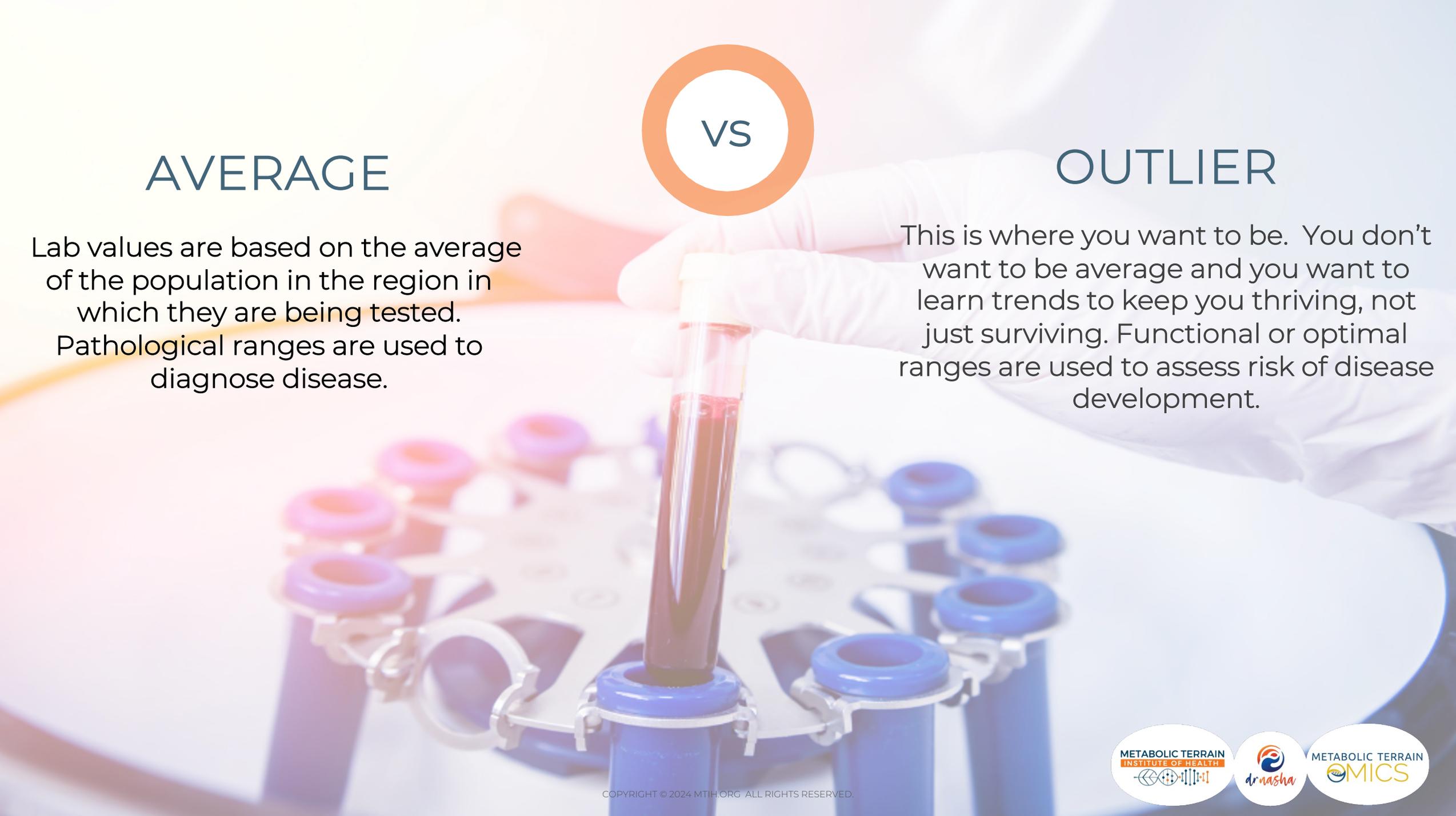




“What we do see depends mainly on what we look for...In the same field, the farmer will notice the crop, the geologists the fossils, botanists the flowers, artists the coloring, sportsmen the cover for the game. Though we may all look at the same things, it does not all follow that we should see them.”

–John Lubbock





VS

## AVERAGE

Lab values are based on the average of the population in the region in which they are being tested. Pathological ranges are used to diagnose disease.

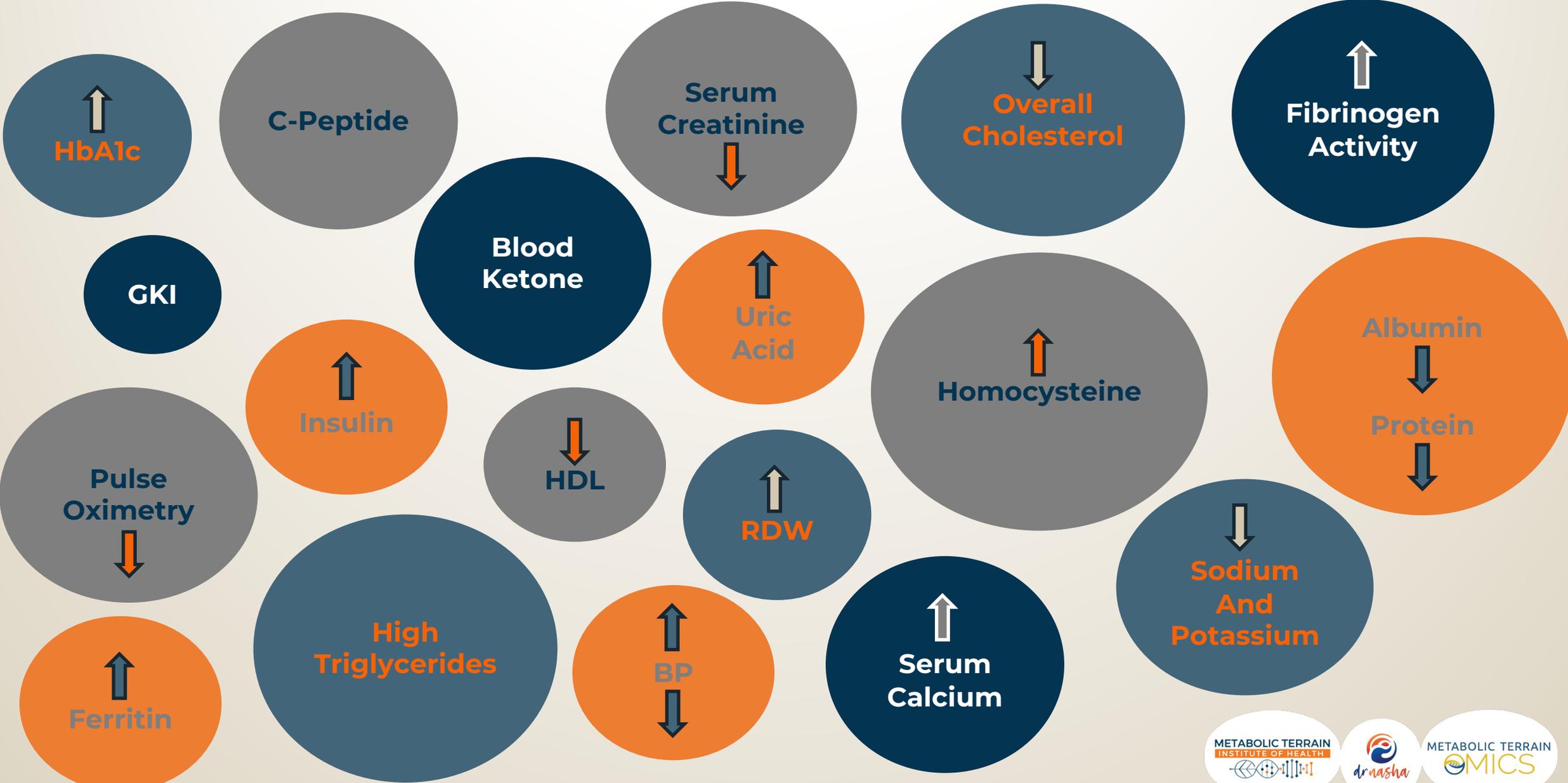
## OUTLIER

This is where you want to be. You don't want to be average and you want to learn trends to keep you thriving, not just surviving. Functional or optimal ranges are used to assess risk of disease development.

# ASSESSING THE TERRAIN FOR METABOLIC HEALTH AND MITOCHONDRIAL FUNCTION

- CBC with diff (with focus on NLR <2:1 and Platelet count, Mono/Eos/Baso, WBCs, Hg/Hct)
- CMP (serum calcium, electrolytes, organ health)
- “Trifecta”: HS-CRP (<1 or <.1), LDH (<175 or <450), ESR (<10) (LDH Isoenzymes where appropriate)
- GGT (<15)
- D3 (25-OH (~80-100) and 1,25-OH (WNL))
- TSH (~.8-2.0), Total T4 (~7-9), Free T3 (>3), T3 Uptake (~30), Reverse T3 (<17)
- Homocysteine (~7)
- Uric Acid (<4)
- HbA1C (<5), Insulin (~3), IGF-1 (~100 higher in peds), c-peptide (<2)
- Urine, blood, breath ketones, CGM, macronutrient counters, nutritional and physical exam, HRV, GKI <3
- Ferritin (~35-75)
- OAT, buccal swab, TG (Tiglylglycine), 8-OHdG, AMA
- Single Nucleotide Polymorphisms (SNPs)
- Body FAT composition <25% (particular focus on hip to waist ratio)
- Terrain Ten™ Questionnaire, signs and symptoms, personal/family med Hx

# Metabolic Markers



Final	Lab	LAB LEARNING: DIAGNOSIS CODE (NOTE: Many of us use "cancer" for diagnosis code for the lab successfully, talk with your doctor. DIAGNOSIS code determines many times if the covered by insurance or not and frequency like VED, IGF1, etc. etc.)	LABS & Notes IOR = If Out Of Range - (every 3 months if range)	Dr. Nisha's optimal RANGE	Low	High	1st Month	Lab	Lab	Lab
IOR = If out of range	Triecta	Triecta is a set of 3 labs that Dr. Nisha Winter uses with patients to show if the cancer is in the advanced state of its form.	TRIFECTA (is cancer in the advanced stage)				Date of labs	Date of labs	Date of labs	Date of labs
Monthly IOR	Triecta	HIGH CRP: marker for inflammation & can be indicator for prognosis for any cancer. Can also indicate drug resistance and more side-effects from treatment. HIGH LDH + High CRP + high sedimentation rate (ESR) can be indicator of disease progression & prognosis. Depending on the lab, the upper limit for low risk may be 0.2 and 2.0. Enter the lab's upper limit in column c.	CRP, C Reactive Protein - Cardiac, High sensitivity (mg/L)	< 1 or < 1 (Depends on lab)	0	1.00	2.00			
Monthly IOR	Triecta	HIGH LDH: indicates poor mitochondrial function, bone breakdown, liver issues, sugar issues, kidney issues or general inflammation, and is a marker for many cancer processes. LDH is the first lab to go up when metabolism goes from respiration to fermentation. It's an early warning light. If LDH is UP, then Mitochondrial function is OFF. LOW LDH: severe malnourishment and some epigenetic/genetic issues. HIGH LDH + High CRP + high sedimentation rate (ESR) can be indicator of disease progression & prognosis. The higher the LDH is above 175, (i.e. 600) the more we need to be concerned about consuming glutamine as it can fuel the cancer. This "Reverse Warburg Effect" indicates late stage cancer, massive tumor burden and indicates that the cancer is getting creative to find its fuel source. Stage 3 and below are usually glucose, not glutamine, dependent.	LDH, Lactate Dehydrogenase (IU/L)	140 to 175 sweet spot or 300 to 450, depending on lab	Enter comes pending low value from column c	Enter comes pending high value from column c				
Monthly IOR	Triecta	Isobutyrates show details of where the inflammation is happening in the body since the overall LDH is an average (and can look normal) and can mask if a specific organ is inflamed. Also look for trends over time in an isoenzyme. Which isoenzyme is high can also help determine if there is over treatment by standard of care (ex. LDH & 2) or if it's tumor progression (ex. LDH & 4). Enzyme ranges vary by lab but should be within 3 points of the upper limit listed for that lab. Refer to your lab's report and enter the low range in column f and then subtract 3 points from the listed high range and enter it in	LDH - Isoenzymes (check with lab that it is done correctly, it is very sensitive)							
Monthly IOR	Triecta	LDH in heart, red blood cells and kidney	(Heart, Red blood cells, Kidney) LDH 1	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value - 3				
Monthly IOR	Triecta	LDH in white blood cells. Also in heart, red blood cells and kidney, but less than LDH1.	(Heart, red blood cells, Kidney (less or amounts than LDH) LDH 2	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value - 3				
Monthly IOR	Triecta	LDH mainly in lung tissue but other tissues, too.	(Lungs and other tissues) LDH 3	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value - 3				
Monthly IOR	Triecta	LDH in white blood cells, kidney cells, pancreas cells, and lymph nodes. Also in liver and muscle but less than LDH5.	(White blood cells, lymph nodes, kidney, pancreas (muscle, liver, but less than LDH 5) LDH 4	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value - 3				
Monthly IOR	Triecta	LDH in the liver and skeletal muscles.	(Liver, Skeletal, Muscle) LDH 5	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value - 3				
Monthly IOR	Triecta	HIGH SedRate: a measure of how fast blood cells fall out of solution. Thicker, clumpy blood is a marker for fatty autoimmune issues and general inflammation. HIGH LDH + High CRP + high sedimentation rate (ESR) can be indicator of disease progression & prognosis (high can also be allergic reaction and autoimmune flare). High levels can be due to bad lab sample, so if other triecta look fine and there are no symptoms, resist. Creates more hypoxia due to poor perfusion and can be an indirect activator of growth factors (VEGF) and other drivers of angiogenesis.	ESR, Sedimentation Rate, SEDRATE, Erythrocyte Sedimentation Rate (mm/hr)	< 10	0	10				
Monthly	CBC		CBC - Complete Blood Cell Count with Differential							
Monthly part of a CBC Panel	CBC	Normal WBC: intact immune system & bone marrow function. LOW WBC: immunocompromised, poor adrenal/HPA, possible chronic infection, immunosuppression. Can be a clue to a chronic infection or metal burden. HIGH WBC: acute infection, medication induced (neutropenic, Neutras), spleen dysfunction or removal.	WBC, White Blood Cell Count (x10 <sup>3</sup> /uL)	sweet spot 5 - 7	5	7				
Monthly part of a CBC Panel	CBC	LOW RBC - Low Hct + Low Hg + Low Platelets: indicates bone marrow suppression.	RBC, Red Blood Cell Count (x10 <sup>12</sup> /uL)	4 - 4.5	4	4.5				
Monthly part of a CBC Panel	CBC	Hemoglobin - Carries oxygen in red blood cells. Low would be around 11. Some doctors want to do transfusions around 7 but transfusions are never a good idea because it highly activates ROS. Hyperbaric oxygen is a better choice. Low Hg - indicates damage to marrow (most often secondary to cancer treatment) and poor perfusion (so need to rest and take it easy) but low Hg can also give an erroneous low HbA1c reading. Low Hg, RBC, Hct & platelets: indicates major bone marrow suppression and patient needs a break from chemo, radiation, treatment, etc. Low Hg & RBC are rarely caused by low iron in cancer patients and more often indicate high ferritin/iron storage and yet these folks are given iron which is a lovely fuel source for cancer cells.	Hemoglobin (g) (g/dL)	13 - 15	13	14.5				
Monthly part of a CBC Panel	CBC	LOW Hematocrit: indicates bone marrow suppression and can be prognostic for higher mortality and progression of disease. Low Hg & RBC are rarely caused by low iron in cancer patients and more often than not indicate high ferritin/iron storage.	Hematocrit (Hct) (%)	40 - 45	40	43				
Monthly part of a CBC Panel	CBC	High MCV (90-110): shows B12 deficiency, anemia (can be related to MTHFR, methylation issues, drug induced (such as Methotrexate). LOW MCV (85-99): leaky gut and/or stress causing low B6, low zinc, low magnesium. MCV (off) (85, >100) indicates overall B-complex deficiency. High MCV/MCH/MCHC: are clues to problems with methylation and overall B-complex deficiencies.	MCV, Mean Corpuscular Volume (fL)	~90	90	90				
Monthly part of a CBC Panel	CBC	HIGH MCH: shows B12 deficiency, anemia. LOW MCH: leaky gut and/or stress causing low B6, low zinc, low magnesium. High MCV/MCH/MCHC: (>90, >30, >30) are clues to problems with methylation and B12/B6 and folate deficiencies.	MCH, Mean Corpuscular Hemoglobin (pg)	~30	30	30				
Monthly part of a CBC Panel	CBC	HIGH MCHC: shows B12 deficiency, anemia. LOW MCHC: leaky gut and/or stress causing low B6, low zinc, low magnesium. High MCV/MCH/MCHC: (>90, >30, >30) are clues to problems with methylation and B12/B6 and folate deficiencies.	MCHC, Mean Corpuscular Hemoglobin Concentration (g/dL)	~32	32	32				
Monthly part of a CBC Panel	CBC	HIGH RDW: big marker of oxidative stress and bone marrow trying to reboot.	RDW, Red Cell Distribution Width (%)	12.3 - 14.5	12.3	14.5				
Monthly part of a CBC Panel	CBC	HIGH Platelets: Major early warning signs of cancerous process, may be first sign. Indicate inflammation, rapid blood loss, potential virus, thick/sticky blood. LOW Platelets: show clotting disorder, easy to bleed, bone marrow suppression, autoimmune issues. LOW RBC - Low Hct + Low Hg + low Platelets: indicates bone marrow suppression.	Platelets (x10 <sup>3</sup> /uL)	175 - 250	175	250				
Monthly part of a CBC Panel	CBC	Interpreted with other values like platelets and blood cell markers; usually not significant on it's own.	MPV, Mean Platelet Value, average size of platelets	Refer to your lab's report and enter the specified range in columns E and F	Enter lab's specific low value	Enter lab's specific high value				
Monthly part of a CBC Panel	CBC	RISING Neutrophils: indicates loss of immune function and can cause a poor response to immune therapies and increased mortality.	Neutrophils %	N.I. ratio = 2:1 (2:0)						
Monthly part of a CBC Panel	CBC		Lymphocytes %	N.I. ratio = 2:1 (2:0)						
Monthly part of a CBC Panel	CBC	Looking for a 2 to 3 ratio with 2 Neut to 1 Lymph. Prognostic for all cause mortality and response to standard of care immune treatments. If ratio is far off because lymphocytes are high and neutrophils are low, you have a "switched NLR" which is often a symptom of overtreatment, blood dyscrasia or blood cancers. Over treatment can lead to complete bone marrow failure or a new bone marrow/blood based cancer. If the ratio is far off because lymphocytes are low and neutrophils are high, prognosis is worse. This can also mean that treatment is overtone and patient needs a break if other signs are promising. Treatments like radiation can impact ratio and it can take years to normalize, but trending towards the 2:1 ratio is progress. Standard ranges may list a 4:1 or 3:1 ratio, but 2:1 is optimum. (Excel cells should populate with ratio and values are listed in the Neut/Lymph cells)	Neutrophil to Lymphocyte Ratio % Ideally 2:1 ratio 'NLR Ratio' Ideally you want a 2 in the box	Divide Neut/Lymph	1.95	2.05				
Monthly part of a CBC Panel	CBC	HIGH Monocytes: indicates macrophages shifting, poor NK cell function, or a viral infection. LOW Monocytes: indicates a non-functioning immune system.	Monocytes %	< 7	0	7.00				
Monthly part of a CBC Panel	CBC	HIGH Eosinophils: caused by some allergic reaction or irritation in the epithelial tissue from the environment or food. If on misoprostol (M) therapy and eosinophils rise above 5, important to test IL8 to see if stopping treatment is warranted.	Eosinophils %	< 2	0	2.00				
Monthly part of a CBC Panel	CBC	HIGH Basophils + high monocytes + high eosinophils: poor man's parasitic test, and indicates gut dysbiosis, and/or leaky gut.	Basophils %	= 0	0	0				
				Refer to your lab's report and						

# Lab Spreadsheet

# SNP Impact on Nutritional Status and DNA Repair

PPAR alpha

FTO

LCT

HLA

SHBG

MDN2

TP53

APOA2

PEMT

GATA3

ACAT

ATM

MTHFR

MSH2/6

FADS 1&2

APOE

ESR2

BHMT

MLH1

TCF7L2

ALDH2

SIRT1

SLC22A5

ACSL

# Nutritional Physical Exam

## OBSERVATIONAL NUTRITIONAL PHYSICAL EXAM

“You are not separate from the whole. You are one with the sun,  
the earth, the air. You don't have a life. You are life.”

-Eckhart Tolle

### Assessing the Terrain: Where Do You Begin?

#### Observation

- Seeing (feeling into it, and nutritional assessment)
  - Questionnaire
  - Intuition
    - Some have this naturally, others must cultivate
  - Laboratory assessment
  - Current symptoms and treatment
  - Personal goals for wellness
- Do they get dizzy on standing? Consider blood sugar issues, low BP, adrenal issues, over medicated with BP meds.
  - Tender scalp, especially if hair is gently pulled  
Vitamin D deficiency and thyroid issues.
  - Flaky dandruff - Selenium, EFAs and B vitamin issues.
  - Dull/lifeless hair - Check Essential Fatty Acids
  - Thinning hair - Poor circulation, thyroid, medication-induced, HCl deficiency, parasites, heavy metals, biotin deficiency.
  - Cataracts in older patients is usually blood sugar related and in younger, the same but also steroid-induced and deficiency in the usual suspects of A, C, Zinc, selenium and magnesium
  - Floaters in the visual field  
Choline deficiency, adrenal exhaustion, liver issues (Traditional Chinese Medicine), vitamin A deficiency
  - Dark circles under eyes  
Allergies, fatigue/adrenals, emotional imbalance, hormone imbalance and in TCM kidney dysfunction
  - In kids--dilated pupils  
*Is almost always a dairy allergy and in both kids and adults could also suggest drug response and/or adrenal insufficiency*
  - Nasal polyps - Allergies, including to salicylates, mold exposure
  - Loss of smell - Zinc, A deficiency
  - Excess ear wax - EFA issues and food allergies
  - Cracking behind ears - Zinc deficiency
  - Ear lobe creases  
Cardiovascular disease, vitamin E deficiency
  - Fluid behind the TM - Allergies, mostly dairy
  - Tinnitus - Allergies, aspirin toxicity and cardiovascular disease
  - Mouth sores/tongue sores, cracks at corner of mouth - B12 deficiency
  - Loss of taste - Zinc
  - Enlarged tonsils in kids - Allergies to foods
  - Periodontal disease  
Deficiency of CoQ10, methylfolate, vitamin C
  - Teeth grinding - Allergies or stress, sleep apnea, heavy metals, parasites
  - Pale tongue and buccal membrane and inner surface of eyelid - Anemia
  - Geographic/mapped tongue  
Deficiency in methylfolate, B12 and zinc

Copyright © MTIH.org All Rights Reserved.



# Common Drug Induced Nutrient Deficiencies:

Magnesium: is made deficient with steroids, antibiotics, hormones, pesticides, acid blocking meds, anti-viral meds, ACE inhibitors like lisinopril, SERMS, immunosuppressant drugs (chemo, especially Platins), coffee and alcohol, malabsorption/leaky gut in general. It is nature's calcium channel blocker and in charge of hundreds of biochemical pathways

B12: is made deficient by antibiotics, antacids, cholestyramine, diabetes drugs like metformin, hormones, H.Pylori infection, SERMS, K-Dur potassium supplementation, low acid in the stomach, poor microbiome diversity and is critical to our neurological function, RBC health and methylation

Zinc: is made deficient by acid blockers, ACE inhibitors, diuretics, cadmium toxicity, BCP and HRT, psychiatric meds, casein, Rifampin, cholesterol meds, SERMS, coffee and tea, high copper or high calcium, sleep meds, general leaky gut and is critical for wound healing, immune function, mental stability and hormone regulation

D3 and K2 (and vitamin A): any issues with thyroid, obesity, most medications, NSAIDS, statins, acid blockers, sleep meds and act like epigenetic switches in all Terrain10 Patterns

Selenium: statins, acid blockers, anti-depressants, HRT, oral contraceptives and estrogen dominance in general, SERMS, Arimidex, cadmium and mercury toxicity, alcohol, gluten free diet (interesting, didn't know that!)---so supplementing and/or taking Brazil nuts is helpful, leaky gut/malabsorption and is known as birth control to viral infections, supports methylation and proper thyroid function

[Evidence of Drug-Nutrient Interactions with Chronic Use of Commonly Prescribed Medications: An Update](#)

- Toxins (countless!)
- High sugar/insulin/IGF-1 (loss of metabolic flexibility)
- Micro and macronutrient deficiencies (in particular-- B12, magnesium, zinc, selenium, D3, K2)
- Estrogen dominance and hormone imbalance

VS

NON-PERMISSIVE  
TERRAIN

PERMISSIVE  
TERRAIN

- Balance of hormones
- Exercise/movement
- Meditation/stress reduction/emotional resilience
- Metabolic flexibility
- Micro and macronutrient-rich
- Botanicals like curcumin and polyphenols in veggie-rich diet

# DIET & LIFESTYLE THAT SUPPORTS METABOLIC FLEXIBILITY

**TIMING OF MEALS**

- TRE
- KD
- IF
- FMD

EATING WITHIN DAYLIGHT HOURS

**C** (circadian rhythm)  
**D** (diet)  
**C** (community)

METABOLIC SUPPLEMENTAL SUPPORT

SUGAR

STRESS

SEX

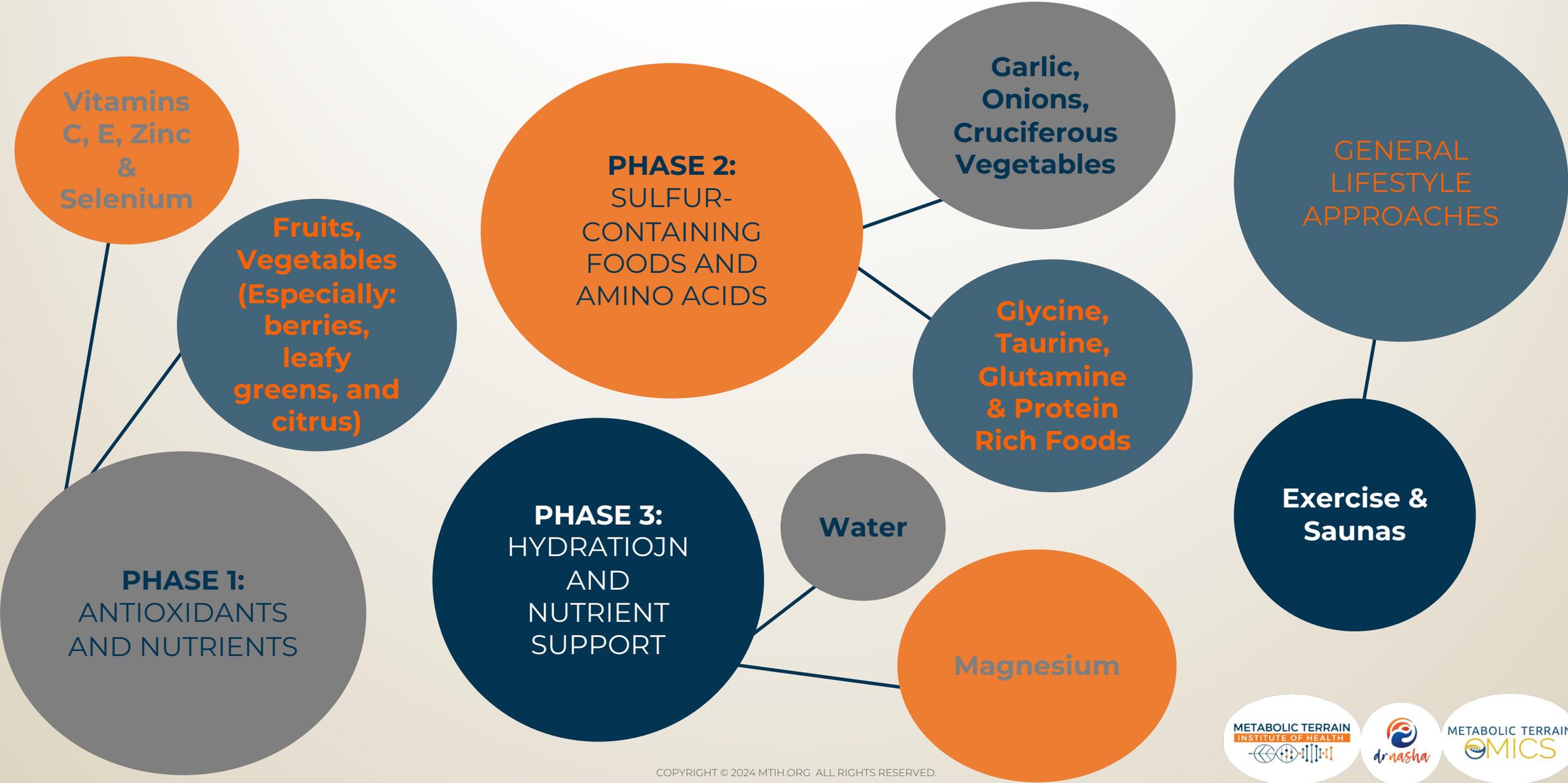
**THE 3 S's**

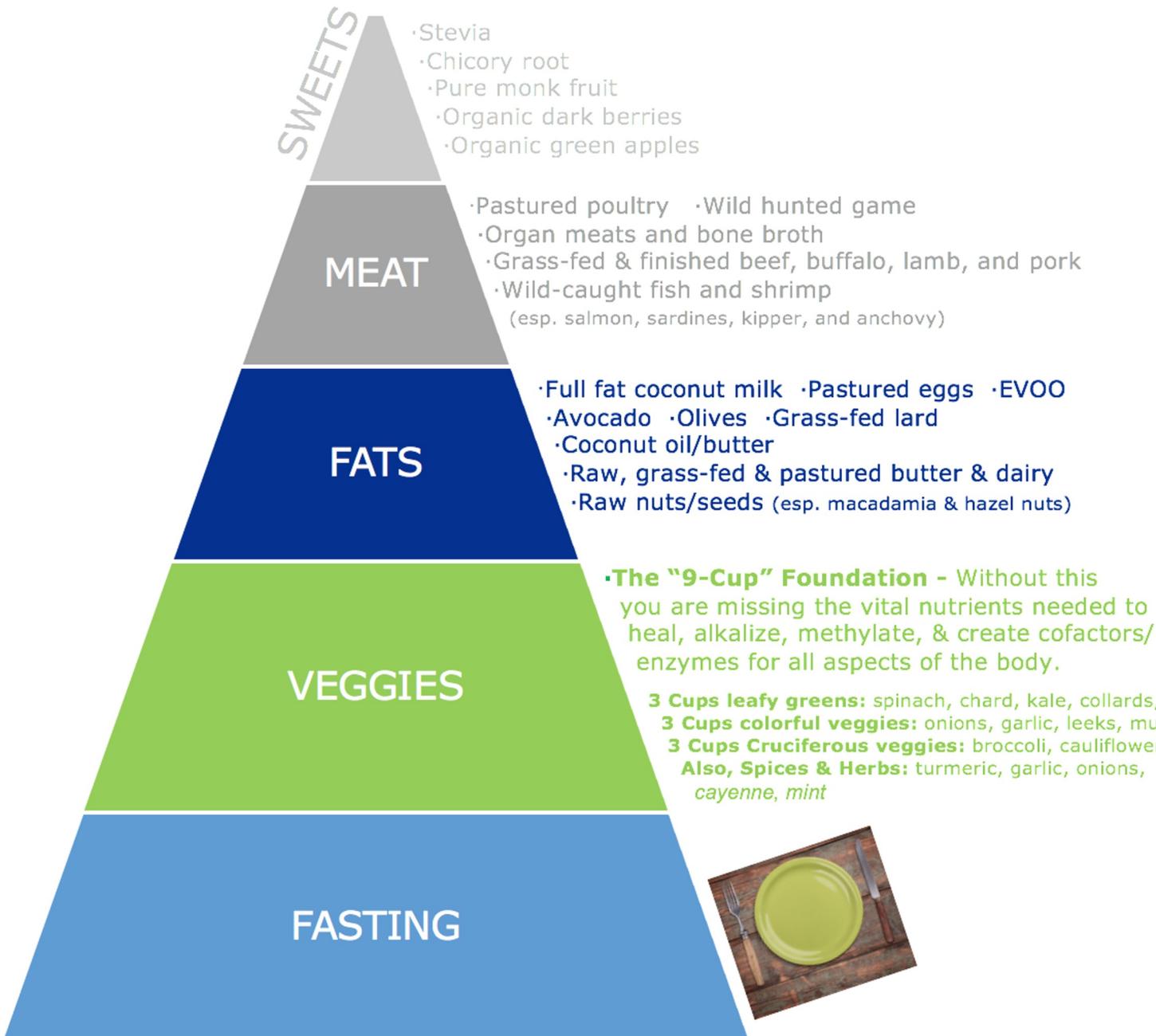
**EAT**

- SEASONAL
- LOCAL/REGIONAL
- NUTRIENT DENSE
- W/O HORMONES
- W/O ANTIBIOTICS
- W/O CHEMICALS

....and  
**W/O ENDOCRINE DISRUPTING PESTICIDE & GLYPHOSATE RESIDUES**

# Strategies to Impact Detox Pathways





# A Diet That Supports Metabolic Flexibility

\*Thanks to Dr. Terry Wahls for coining the 9-cup foundation  
 \*Thanks to Dr. Dale Bredesen for his fasting pyramid contribution

# Therapeutic Diets: Food (or lack thereof) as Medicine:

FMD

ELIMINATION/  
ROTATION

FODMAPS

KETOGENIC  
DIET

INTERMITTANT  
FASTING

CARNIVORE

CARBOHYDRATE  
RESTRICTION

MEDITERRANEAN



CRYOTHERAPY,  
HYPERTHERMIA



SUPPLEMENTS,  
NUTRIENTS

- D3
- Magnesium
- Zinc
- Berberine
- Sodium Selenite
- Melatonin
- Boswellia



BLUE LIGHT  
MITIGATION

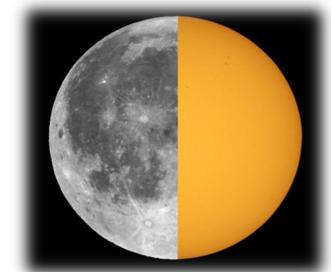


MITOCHONDRIAL  
POISONS REMOVAL



HAPPY CELLS

CIRCADIAN  
RHYTHM



EXERCISE



HOLD BREAD, VEG OUT



INTERMITTENT FASTING



BREATH



MENTAL HEALTH



# Dr. Nasha's "TOP 10" Resource Guide

## Top 10 Lifestyle Choices to Create an Optimal Terrain:

1. Eating organic, non-GMO, local whole foods that are seasonal, nutrient dense and very low glycemic and weave in regular fasting
2. 9 cups of veggies/day---3 cups leafy greens, 3 cups cruciferous vegetables, 3 cups colorful veggies (thank you, Dr. Terry Wahls!)
3. Daily mindfulness/meditation/prayer practice (GPS for the Soul, HRV monitor, Headspace, MBSR)
4. Time in nature daily, laying on the earth, walking barefoot on the dewy grass each morning, Forest Bathing, beach walking
5. Cultivating a nurturing support network (and avoiding toxic relationships)
6. Clean air, purified water
7. Earthing, avoidance or moderation of EMFs, limiting screen time
8. Grow a garden and/or indoor plants, get your hands in soil!
9. In bed by 10 pm in complete darkness, turn off router, no electronics in bedroom
10. Run all body care products and household products through Environmental Working Group or similar organization in your own country

## Top 10 Healing Foods

1. Bone Broth
2. Greens (acidified, low oxalate)
3. Cruciferous Vegetables (with mustard powder to increase bioavailability)
4. Ghee
5. Coconut Oil
6. Sardines, Anchovies
7. Berries
8. Hazelnuts, Macadamia and Pili nuts
9. Fermented Foods
10. Olives and olive oil

## Top 10 Healing Spices

- |             |              |
|-------------|--------------|
| 1. Turmeric | 6. Cumin     |
| 2. Parsley  | 7. Ginger    |
| 3. Cinnamon | 8. Cacao     |
| 4. Cayenne  | 9. Sea salt  |
| 5. Rosemary | 10. Cilantro |



# RESOURCES:

- [EWG Tap Water Data Base](#)
- [Berkey Water Filter Data Base](#)
- [WHO Air Quality Database 2022](#)
- [EPA Air Pollution Data Base](#)
- [WHO Air Pollution Data Portal](#)
- [EPA Super Fund Site Zipcode Data Base](#)

# REFERENCES:

1. Does Environment Affect Cancer Risk?  
[file:///Users/deniseslinger/Desktop/Does%20Environment%20Affect%20Cancer%20Risk\\_%20\\_%20Fight%20Colorectal%20Cancer.html](file:///Users/deniseslinger/Desktop/Does%20Environment%20Affect%20Cancer%20Risk_%20_%20Fight%20Colorectal%20Cancer.html)
2. Clinical Environmental Medicine: Identification and Natural Treatment of Diseases Caused by Common Pollutants Book, by Walter J. Crinnion and Joseph E. Pizzorno Jr., ND <https://www.amazon.com/Clinical-Environmental-Medicine-Identification-Pollutants/dp/0323480861>
3. Mitochondria as a Target of Environmental Toxicants  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693132/>
4. ARC Monographs on the Identification of Carcinogenic Hazards to Humans  
[https://monographs.iarc.who.int/cards\\_page/publications-monographs/](https://monographs.iarc.who.int/cards_page/publications-monographs/)
5. Expert Panel Confirms that Fragrance Ingredient Can Cause Cancer <https://www.ewg.org/news-insights/news/expert-panel-confirms-fragrance-ingredient-can-cause-cancer>
6. In Glyphosate Review, WHO cancer agency edited out “Non-Carcinogenic” Findings  
<https://www.reuters.com/investigates/special-report/who-iarc-glyphosate/>

# REFERENCES:

7. Light-at-night Induced Circadian Disruption, Cancer and Aging  
<https://pubmed.ncbi.nlm.nih.gov/23237593/>
8. Case-Control Study About Magnitude of Exposure to Wood Smoke and Risk of Developing Lung Cancer  
<https://pubmed.ncbi.nlm.nih.gov/34115693/>
9. What Are Obesogens, and Should We Be Concerned? <https://www.healthline.com/nutrition/what-are-obesogens>
10. Obesogens in Foods <https://pubmed.ncbi.nlm.nih.gov/35625608/>
11. The Metabolic Approach To Cancer Book <https://www.drnasha.com/matcbook/>
12. Airly Air Pollution Site <https://airly.org/map/en/>
13. Air Pollution and Your Health <https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm>
14. A Comprehensive Review on Indoor Air Quality Monitoring Systems For Enhanced Public Health  
<https://sustainenvironres.biomedcentral.com/articles/10.1186/s42834-020-0047-y>

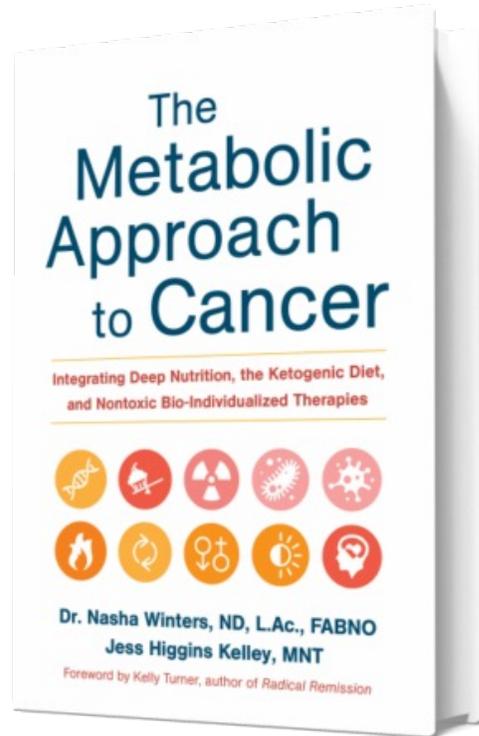
# REFERENCES:

15. Drinking Water Contaminants <https://dceg.cancer.gov/research/what-we-study/drinking-water-contaminants>
16. EWG's Tap Water Database <https://www.ewg.org/tapwater/>
17. Water Quality Search <https://www.berkeyfilters.com/pages/water-quality-search>
18. Bottled Water Quality Investigation <https://www.ewg.org/research/bottled-water-quality-investigation>
19. Most Popular Water Tests [USWaterSystems.com](https://www.uswatersystems.com)
20. What Are the 14 Signs of Dehydration?  
[https://www.medicinenet.com/how\\_can\\_you\\_tell\\_if\\_you\\_are\\_dehydrated/article.htm](https://www.medicinenet.com/how_can_you_tell_if_you_are_dehydrated/article.htm)
21. Circadian Rhythms and Cancers: The Intrinsic Links and Therapeutic Potentials  
<https://pubmed.ncbi.nlm.nih.gov/35246220/>
22. Interplay Between Circadian Clock and Cancer: New Frontiers for Cancer Treatment  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7120250/>

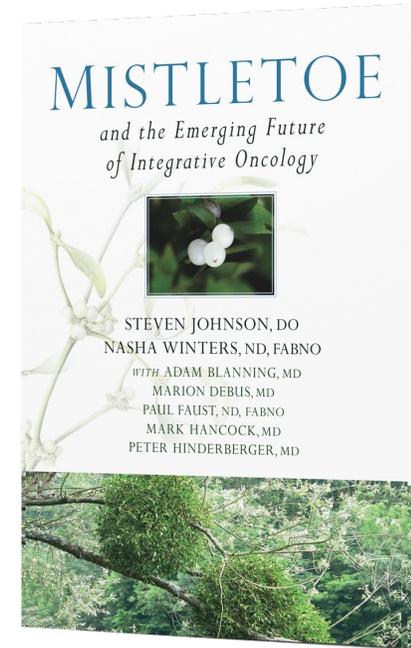
# REFERENCES:

23. How to Choose Your Food Zoomers <https://www.vibrant-wellness.com/how-to-choose-your-food-zoomers/>
24. Exercise Linked With Lower Risk of 13 Types of Cancer <https://www.cancer.org/latest-news/exercise-linked-with-lower-risk-of-13-types-of-cancer.html>
25. Exercise and Cancer: From "Healthy" to "Therapeutic"? <https://pubmed.ncbi.nlm.nih.gov/28324125/>
26. Overtraining Syndrome <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3435910/>
27. Why Sleep is Essential for Health <https://www.medicalnewstoday.com/articles/325353#performance-and-memory>
28. The Hidden Health Hazards of Toxic Relationships <https://www.psychologytoday.com/us/blog/high-octane-women/201108/the-hidden-health-hazards-toxic-relationships>
29. Only 12% of Americans are Metabolically Healthy <https://pubmed.ncbi.nlm.nih.gov/30484738>
30. Trends and Disparities in Cardiometabolic Health Among U.S. Adults, 1999-2018 <https://www.sciencedirect.com/science/article/abs/pii/S0735109722049944>

# Books

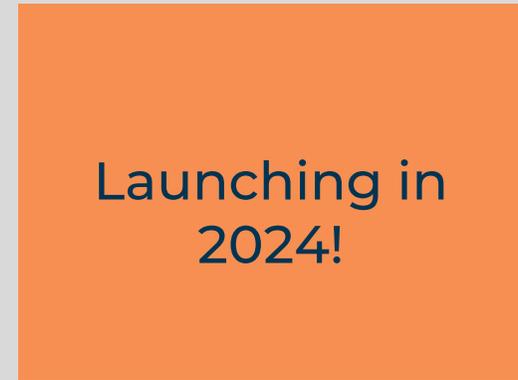


The Metabolic Approach To Cancer



Mistletoe and the Emerging Future of Integrative Oncology

# EDUCATION



POWERED BY 

[Terrain Advocate Program \(TAP\)](#)

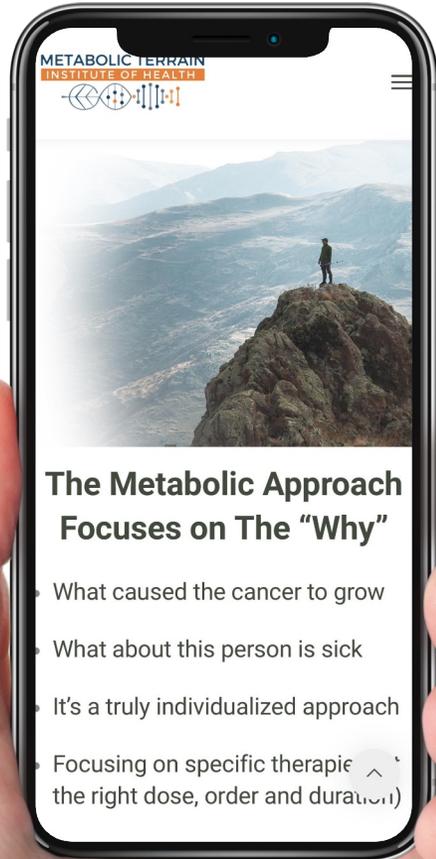
[Metabolic Approach to Cancer Practitioner Master Course](#)

Metabolic Approach to Life Evergreen Course



# FIND & FOLLOW US ON SOCIAL

Use the links below to get referrals to vetted and trained metabolic-centric practitioners and learn more.



**METABOLIC TERRAIN**  
**INSTITUTE OF HEALTH**



[www.MTIH.org](http://www.MTIH.org)



[metabolic matters podcast](http://metabolic matters podcast)



*dr nasha*

[www.drnasha.com](http://www.drnasha.com)



# METABOLIC MATTERS

MASTERING  
METABOLIC  
HEALTH

with *Dr. Nasha Winters*



## RECENT INTERVIEWS FEATURING:

- *Dr. Georgia Ede, MD*
- *Beth Lambert*
- *Dr. Paul S. Anderson, NMD*
- *Travis Christofferson*
- *Dr. Zach Bush, MD*
- *Dr. Kelly A. Turner, PhD*
- *Raj Jana*
- *Brad and Maggie Jones*
- *Dr. Lyn Patrick, ND*
- *Dr. Vineet Datta, MD*
- *James Maskell*
- *Dr. Devra Davis, PhD*

# CONTACT ME

## Dr. Nasha Winters, ND, FABNO

Speaking and Consulting: [denise@mtih.org](mailto:denise@mtih.org)  
Education (MATC Master Course, TAP): [janet@mtih.org](mailto:janet@mtih.org)  
Metabolic Terrain Institute Of Health: [info@mtih.org](mailto:info@mtih.org)  
Partnerships: [cindy@mtih.org](mailto:cindy@mtih.org)

[Subscribe to my Newsletter](#)

<http://www.MTIH.org/> [www.metabolichealthday.life](http://www.metabolichealthday.life) [www.drnasha.com](http://www.drnasha.com) [www.metabolicmatters.org](http://www.metabolicmatters.org)

