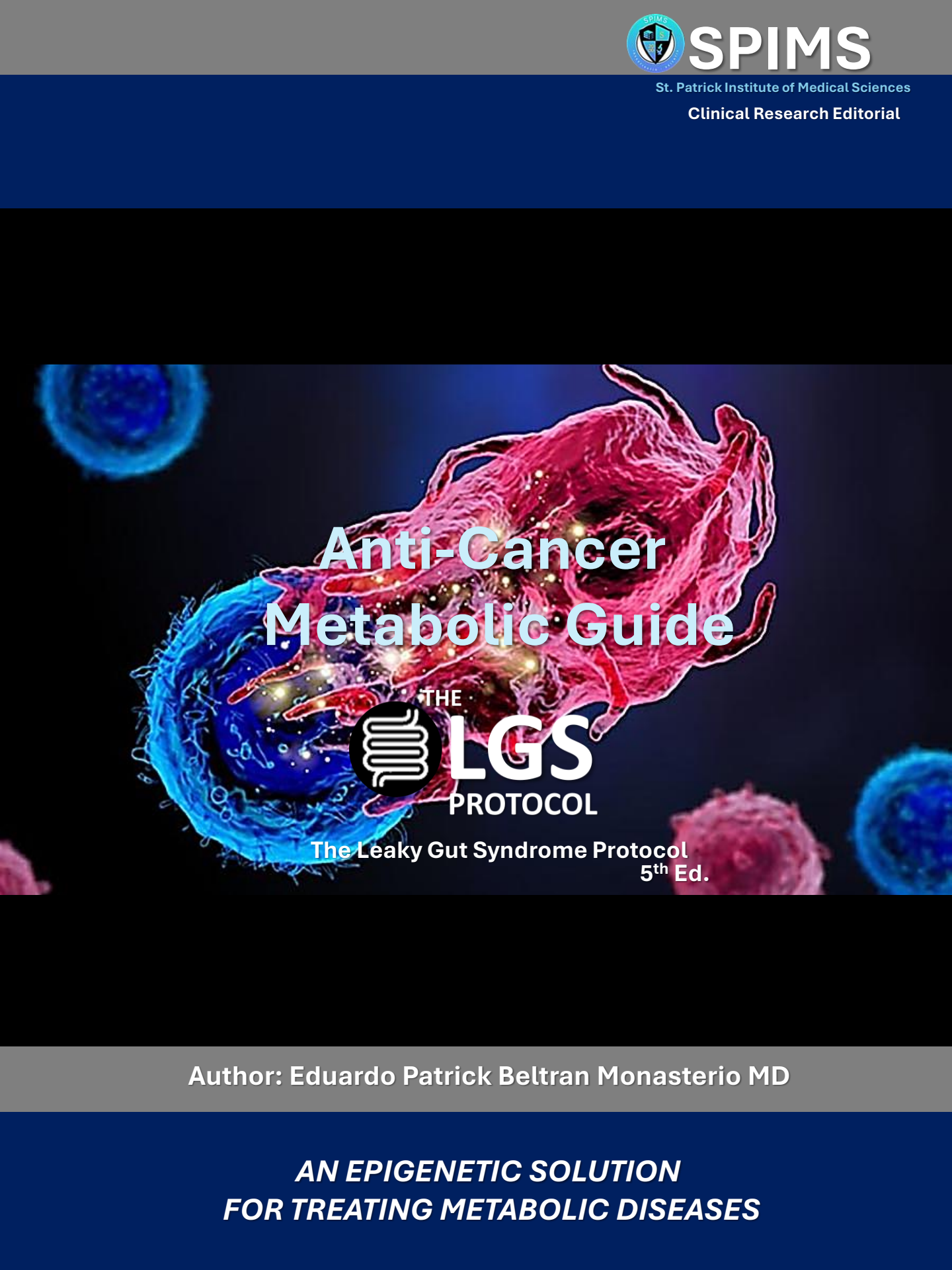




SPIMS

St. Patrick Institute of Medical Sciences

Clinical Research Editorial



**Anti-Cancer
Metabolic Guide**

THE
 **LGS**
PROTOCOL

The Leaky Gut Syndrome Protocol
5th Ed.

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***AN EPIGENETIC SOLUTION
FOR TREATING METABOLIC DISEASES***

Introduction to the Metabolic Perspective on Cancer:

The article "Cancer as a Metabolic Disease: Implications for Novel Therapeutics" written by Dr. Thomas N. Seyfried, challenges the conventional view of cancer as a purely genetic disorder. Instead, it posits that cancer is fundamentally a disease of cellular energy metabolism. This perspective shifts the focus from genetic mutations to disruptions in how cells produce and use energy, offering new insights into cancer development and treatment.

Metabolic Dysfunction and Cancer Development:

The central thesis is that cancer arises primarily from disturbances in cellular energy metabolism rather than from genetic mutations. Authors argue that the core issue is not the genetic alterations themselves but rather the metabolic abnormalities that result from these alterations. Specifically, they highlight problems with cellular respiration and fermentation processes. When cells undergo metabolic dysfunction, it can lead to uncontrolled growth and tumor formation.

Genomic Instability as a Secondary Effect:

Traditionally, genomic instability and mutations have been considered primary drivers of cancer. However, recent studies suggest that these genetic changes might actually be consequences of the underlying metabolic dysfunction. In other words, metabolic disturbances precede and potentially cause genomic instability, challenging the conventional genetic mutation-focused view of cancer.

Mitochondrial Dysfunction and the Warburg Effect:

One of the key arguments in this guide is the role of mitochondrial dysfunction in cancer. As we revisit Otto Warburg's theory, which posits that cancer cells have impaired cellular respiration and instead rely on fermentation (glycolysis) for energy, even when oxygen is available. This phenomenon, known as the "Warburg effect," reflects a shift from efficient aerobic respiration to less efficient anaerobic fermentation. Studies suggest that this shift is a central feature of cancer metabolism and points to mitochondrial dysfunction as a critical factor in cancer development.

Evidence from Nuclear Transfer Experiments:

To support their metabolic theory, the authors present evidence from nuclear transfer experiments. These experiments involved transferring normal mitochondria into cancer cells. The results showed that the introduction of normal mitochondria into cancer cells suppressed tumor formation. This finding supports the idea that mitochondrial health and function play a crucial role in cancer and reinforces the metabolic perspective.

Implications for Cancer Treatment:

This guide proposes that cancer treatment could be significantly improved by focusing on the metabolic needs of the individual. Specifically, we must help in the transitioning of the body's metabolism from relying on fermentable metabolites, such as glucose and glutamine, to utilizing respiratory metabolites, primarily ketone bodies. This metabolic shift could help manage cancer growth and progression more effectively in patients.

Personalized Metabolic Therapy:

In line with this perspective, when treating our patient we must advocate always for a personalized metabolic therapy. This approach involves tailoring treatment strategies to an individual's unique metabolic profile. By customizing therapies based on a person's specific metabolic needs, it may be possible to develop more targeted and effective treatments for cancer.

Improving Gut Health and Modulating the Microbiome:

A crucial aspect of cancer management from a metabolic perspective involves improving gut health and modulating the microbiome. Recent research highlights the role of diet, particularly ketogenic diets, in supporting metabolic health and potentially influencing cancer outcomes. A ketogenic diet, which emphasizes high-fat and low-carbohydrate intake, can shift the body's metabolism to utilize ketone bodies, supporting the metabolic approach to cancer treatment.

Additionally, the use of herbal antimicrobials can help in balancing the gut microbiome, addressing dysbiosis, and enhancing overall metabolic health. This approach not only targets cancer cells but also supports a healthier gut environment that can positively influence immune function and overall well-being.

Modulating the Immune System and Compensating Epigenetics:

Beyond dietary interventions, modulating the immune system plays a vital role in managing cancer. A well-regulated immune response can help target and destroy cancer cells more effectively. Integrative approaches that include herbal supplements, anti-inflammatory diets, and lifestyle changes can support immune health and optimize the body's ability to combat cancer.

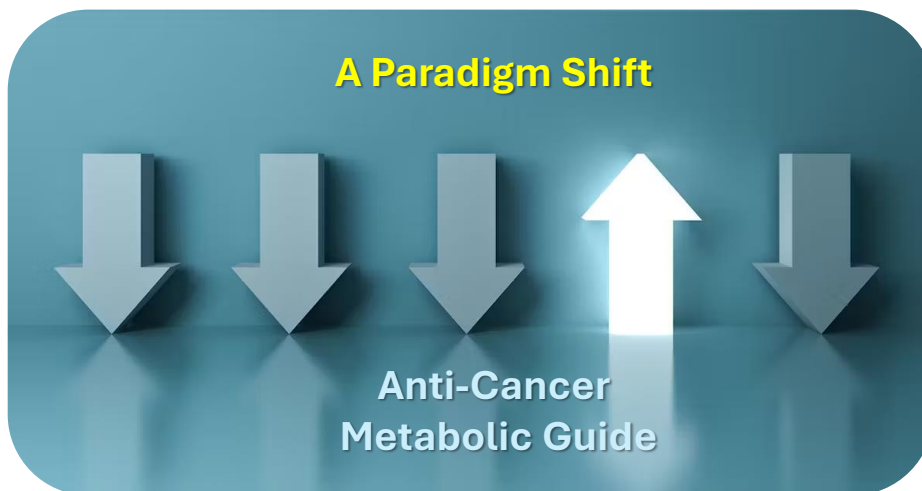
Compensating for epigenetic changes is another important aspect of cancer management. Epigenetic modifications can influence gene expression and contribute to cancer progression. By incorporating strategies such as diet, supplementation, and lifestyle changes, it is possible to positively influence epigenetic regulation and potentially counteract cancer-related changes in gene expression.

Broader Implications for Cancer Research and Prevention:

Adopting a metabolic perspective on cancer has significant implications for both research and clinical practice. It could lead to new strategies for cancer prevention, focusing on metabolic health and mitochondrial function. Additionally, this perspective might inspire novel therapeutic approaches that target the metabolic pathways involved in cancer, offering new hope for more effective treatments.

Conclusion:

This “Anti-Cancer Metabolic Guide” presents a compelling argument for rethinking cancer’s origins and treatment. By focusing on metabolic dysfunction and mitochondrial health, it offers a fresh perspective that could transform our understanding of cancer and lead to innovative prevention and treatment strategies. This paradigm shift highlights the importance of exploring metabolic factors in cancer research and opens new avenues for developing effective, personalized therapies.



Diet & Cancer

When embarking on a cancer treatment journey, starting with Level One therapies is crucial. Among these therapies, a radical diet change can be incredibly effective. The most impactful change for patients is adopting a keto vegan diet—plant-based, no carbs, and no sugar. One must avoid fruit, candy, and bread, committing fully to this dietary shift. This lifestyle change has been consistently associated with no evidence of disease and remission in many cancer survivors.

Key Components of the Diet

Level One Therapy

Plant-Based Diet

A plant-based diet is a foundational aspect of cancer treatment. Studies and anecdotal evidence from the cancer survivor community strongly support the effectiveness of plant-based diets. Whether it's plant-based keto or juicing, both approaches offer significant benefits. For those with digestive cancers, a juicing diet may be preferable initially, while those with hard tumors might benefit more from a plant-based keto diet.

Ketosis

Ketosis involves consuming whole foods. The state of ketosis is characterized by low glucose and high ketone levels, measured using the Glucose Ketosis Index (GKI). A GKI of 5 or lower, ideally 3 or lower, indicates that the body is actively combating cancer. Resources such as "A Metabolic Approach to Cancer" and "Keto for Cancer" by Miriam Kalam provide valuable insights into implementing a keto diet. Additionally, the Keto Mojo device is essential for monitoring ketosis.

Fasting for Cancer

Fasting, alongside dietary changes, is another powerful strategy against cancer. Cancer is a metabolic disease, not primarily genetic, and fasting can trigger autophagy, where the body consumes fat and dead cells, including cancer cells. Dr. Alan Goldhamer of the True North Health Clinic and Dr. Eric Berg are notable experts in fasting for cancer. Various fasting methods, including intermittent fasting, 24-hour fasts, and extended fasts, can significantly impact cancer treatment and overall health.

Intermittent Fasting

Intermittent fasting, typically 14-16 hours per night, has shown a 77% reduction in cancer recurrence in some studies. This method involves taking long breaks between meals, reducing caloric intake, and enhancing ketone production. Daily intermittent fasting and a weekly 24-hour fast were particularly effective for patients, leading to significant symptom reduction and overall health improvement.

Extended Fasting

Extended fasting, such as three-day fasts monthly and seven-day fasts annually, further enhances the benefits of ketosis and autophagy. These fasts should be followed by careful refeeding with nutrient-dense foods to support the body's recovery.

Detox Therapy: Infrared Sauna

Using an infrared sauna is another crucial component of cancer therapy. The sauna helps detoxify the body, stimulate natural killer cells, and promote heat shock proteins. Spending 15-25 minutes in an infrared sauna daily, combined with proper hydration, can significantly aid in the elimination of toxins. The sauna routine should include activities like reading, journaling, and reflecting, creating a holistic healing environment.

Level Two Therapy

Hyperbaric Oxygen Therapy (HBOT)

Hyperbaric oxygen therapy (HBOT) involves breathing pure oxygen in a pressurized environment, which hypercharges the blood, brain, and bones with oxygen. This therapy is particularly beneficial as cancer cells cannot thrive in oxygen-rich environments. HBOT should ideally be done for 70 minutes a day, five days a week, though practical constraints may limit frequency.

Implementing these strategies—radical diet changes, fasting, and detox therapy—requires determination and commitment. Each component works synergistically to combat cancer and improve overall health. Remember, staying alive for your loved ones is the ultimate motivation, and adopting these therapies can make a significant difference in your cancer treatment journey.

Genetic Mutations and Detoxification

Genetic mutations, such as MTHFR (Methylenetetrahydrofolate reductase) and COMT (Catechol-O-methyltransferase) and Vitamin D gene mutations, can impair the body's methylation cycle and detoxification processes. These mutations hinder the body's ability to eliminate toxins effectively, which can accumulate and cause various health problems.

Key Resource:

• *Dirty Genes* by Dr. Ben Lynch: This book explores the concept of epigenetics and how environmental factors can influence gene expression. Dr. Lynch explains how to manage genetic mutations through lifestyle and dietary changes, effectively "cleaning up" your genes.

Supplementation Strategy:

• **Personalized Supplementation:** Based on genetic testing and understanding of one's unique genetic makeup, supplementation should be customized. For instance, individuals with MTHFR mutations might benefit from B12 and other B vitamins to support detoxification.

•**High dose Vitamin D therapy** is also an important strategy that aids in the modulating the immune system and microbiome by reducing intestinal permeability and improving tight junctions

•**Strategic Supplementation:** Initially, a broad approach can be taken with supplements known for their anti-cancer and anti-tumoral properties. Over time, as knowledge about personal health improves, some supplements can be replaced with nutrient-rich foods.

Off-Label Drug Protocols

Off-label drug protocols involve using pharmaceutical drugs for purposes other than their original indication. This approach has gained traction in the treatment of cancer, where certain drugs, known to target cancer cells, are repurposed (Naltrexone (LDN), Merformin, Atorvastatin and Mebebdazole). I personally do not work with these medications and have found alternatives to them.

Key Resource:

•*How to Starve Cancer* by Jane McLelland: This book outlines an off-label drug protocol, providing a strategic approach to repurposing drugs to combat cancer. McLelland's work highlights the potential of using a combination of drugs and supplements to inhibit cancer growth.

Nervous System Regulation

Vagal Nerve Toning

The vagal nerve plays a crucial role in the body's fight-or-flight response. Regulation of the vagal nerve through various techniques can significantly impact overall health and recovery from illnesses like cancer.

Therapies and Techniques:

•**Cold Plunges:** Immersion in cold water can enhance vagal nerve function and improve stress response. Regular cold plunges (about 11 minutes per week) can regulate the nervous system effectively.

•**Breathing Techniques:** Techniques like Wim Hof breathing and box breathing can help manage stress and improve nervous system regulation. These methods are essential in managing the emotional and physiological responses to cancer treatment.

•**Heart Rate Variability (HRV):** Monitoring HRV provides insights into the body's ability to switch between fight-or-flight and rest-and-digest modes. Higher HRV indicates better adaptability and resilience.

Key Resource:

•*Braving the Storm* by Megan Van Zile: This book delves into the relationship between trauma, nervous system regulation, and cancer. Van Zile's personal and professional experiences provide a comprehensive guide to using nervous system regulation as part of a holistic cancer treatment plan.

Level Three Therapies: Advanced Therapies

Intravenous Vitamin C (IVC)

IVC involves administering high doses of vitamin C directly into the bloodstream, which can trigger apoptosis (programmed cell death) in cancer cells and enhance immune function. This therapy is typically administered once or twice a week and can be a critical component of an integrative oncology plan.

Dichloroacetate (DCA) and Poly MVA

•**DCA:** This natural compound induces apoptosis by interfering with cancer cell metabolism, promoting natural cell death.

•**Poly MVA:** A combination of minerals, vitamins, and alpha-lipoic acid, Poly MVA provides potent antioxidant support and can enhance the body's anti-cancer defenses.

Mistletoe (*Viscum album*) Injections SC

•**Mistletoe Injections:** Mistletoe extract, administered subcutaneously, can stimulate the immune system and induce apoptosis in cancer cells.

Craniosacral Therapy

This gentle, non-invasive therapy focuses on the cranial bones and the sacrum. It aims to relieve pressure and improve the function of the central nervous system, providing relaxation and potentially enhancing overall health.

Cannabis and Rick Simpson Oil (RSO)

Cannabis, particularly in the form of Rick Simpson Oil, has been reported to alleviate the side effects of cancer treatments such as chemotherapy and radiation. RSO can improve appetite, reduce pain, and enhance overall well-being during cancer therapy.

LEVEL 1 & 2

Supplements	Dosage: Morning	Dosage: Afternoon	Dosage: Evening	Lab to monitor
Vitamin D3 (Softgel)	High Dose Vitamin D			Calcifediol/ calcitriol/PTH & Ca+, 24 hr Ca+
Magnesium Glycinate (Capsules)	500 mg	500 mg	500 mg	Mg+ Serum RBC Mg+
Omega 3 (Softgel)	4200 mg EPA:DHA (1200/900 mg)			
Nattokinase (Capsule)	200 mg (4000 FU)			Coagulogram
Curcumin + Piperine (Capsule)	2000/10 mg		2000/10 mg	
Digestive Enzymes (Now) + Ox bile & HCL Betaine	With every meal			
Vitamin K2 (MK7) (Capsule)		400 mcg		
Artemisia Annua (Capsule)	430 mg			Liver Enzymes
Thorne Active B complex (Capsule)	1 capsule			
Methylcobalamin Sublingual drops	5000 mcg			
Vitamin A (Softgel)	25.000 IU			
Alpha Lipoic Acid-R	600 mg		600mg	
LDN			4.5 mg before sleep	
Melatonin			20 mg	
Chromium Picolinate	1000 mcg			

LEVEL 1 & 2

Supplements	Dosage: Morning	Dosage: Afternoon	Dosage: Evening	Lab to monitor
Mushroom Immune Review	200 mg		200 mg	
EGCG extract	1000 mg		1000 mg	
Ursolic Acid (Rosemary)	200 mg			
Resveratrol		400 mg		
Pomegranite (Elagic Acid)		250 mg		
Berberine (capsule)	1000 mg		1000 mg	
Oregano Oil (80% Cavrecrol) (Softgel)	500 mg		500 mg	
Garlic Oil (Allicin) Softgel		1500 mg		
Quercitina		800 mg	800 mg	
Indole 3 carbinol		400 mg	400 mg	
Mebendazol (pill)	112 mg		112 mg	Liver enzymes

SAUNA

Level 1

Saunas and cold baths can stimulate the production of heat shock proteins (HSPs), which are crucial for cellular protection and repair mechanisms. When the body is exposed to the stress of high heat in a sauna or the extreme cold of an ice bath, it triggers a stress response that increases the expression of HSPs. These proteins help in stabilizing and refolding damaged proteins, protecting cells from stress-induced damage, and enhancing the immune system's ability to target and eliminate cancer cells. By bolstering cellular defense mechanisms, the use of saunas and cold baths may support the body's natural ability to combat cancer.

HBOT

Level 1

Hyperbaric Oxygen Therapy (HBOT) helps fight cancer by increasing the oxygen levels in the body, which creates an inhospitable environment for cancer cells that typically thrive in low-oxygen (anaerobic) conditions. Cancer cells often adapt to and prefer hypoxic environments to sustain their growth and survival. By exposing the body to high-pressure oxygen, HBOT enhances oxygen delivery to tissues, thereby reducing hypoxia. This increased oxygenation can inhibit the growth of anaerobic cancer cells, enhance the effectiveness of certain chemotherapy and radiation therapies, and promote the overall health of normal cells, making it a supportive treatment in the fight against cancer.

LEVEL 3

IV Supplements	Dosage:			Lab to monitor
High Dose Vitamin C IV	30 gr – 50 gr – 100 gr	Twice a week	2 hour Infusion	Kidney & Liver Function
Alpha Lipoic Acid + Multivitamins IV	600 mg	Twice a week	2 hour Infusion	Kidney & Liver Function
Dichloroacetate (DCA) IV	10 to 25 mg/kg/day	Twice a week	2 hour Infusion	Kidney & Liver Function



Ketogenic Diet Without Lectins

General Guidelines:

- **Carbohydrate Intake:** Less than 20-30 grams of net carbs per day.
- **Protein:** Moderate, about 1.2-2.0 grams per kilogram of body weight.
- **Fats:** High, making up the remaining calories.
- **Avoid Lectins:** Eliminate lectin-rich foods like beans, legumes, grains, nightshades (tomatoes, potatoes, peppers, eggplants), peanuts, and soy.

Foods to Include:

- **Proteins:** Wild-caught fish, organic chicken, pasture-raised eggs.
- **Fats:** Avocado, olive oil, coconut oil, ghee, grass-fed butter, MCT oil, nuts, and seeds.
- **Vegetables:** Leafy greens (spinach, kale, Swiss chard), cruciferous vegetables (broccoli, cauliflower, Brussels sprouts), asparagus, mushrooms, zucchini.
- **Beverages:** Water, herbal teas, coffee (without sugar or milk), bone broth.
- **Others:** Avocado, coconut, olives, small portions of berries.

Foods to Avoid:

- **Grains:** Wheat, rice, corn, oats, barley.
- **Legumes:** Beans, lentils, peanuts, soy.
- **Nightshades:** Tomatoes, potatoes, eggplants, peppers.
- **Sugars and High-Carb Foods:** Sugary foods, most fruits (except small portions of berries), starchy vegetables (sweet potatoes, carrots), All processed foods.

Meal Plan

Daily Meals:

Breakfast:

- Spinach and mushroom omelet cooked in coconut oil.
- Avocado slices.
- Coffee with MCT oil.

Lunch:

- Salad with leafy greens (arugula, spinach, kale), avocado, pecans, olives, and grilled fish fillet, dressed with olive oil and lemon juice.

Dinner:

- Baked chicken breast with a mix of steamed broccoli and cauliflower.
- Zucchini stuffed with mushrooms and coconut cream.

Snacks:

- Celery sticks with almond butter.
- Small portion of mixed nuts (macadamia, pecans, walnuts).
- Some berries with coconut cream.

Intermittent Fasting Schedule:

Daily 14-16 Hour Fast:

- **Fasting Period:** 7 PM to 9 AM (adjust as needed).
- **Eating Period:** 9 AM to 7 PM.

Weekly 24-Hour Fast:

- Choose one day of the week (e.g., Monday).
- **Last Meal:** Dinner at 7 PM on Sunday.
- **Next Meal:** Dinner at 7 PM on Monday.

Tips for Success:

- 1.Stay Hydrated:** Drink plenty of water throughout the day.
- 2.Electrolytes:** Ensure adequate intake of sodium, potassium, and magnesium, especially during fasting.
- 3.Meal Preparation:** Prepare meals in advance to stay on track.
- 4.Listen to Your Body:** Adjust fasting times if needed to fit your energy levels and overall well-being.
- 5.Monitor Ketosis and GKI:** Use ketone test strips or a blood ketone meter to ensure you are in ketosis and maintain a GKI below 3.

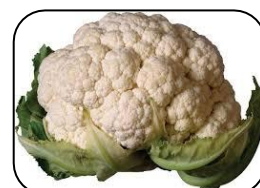
By following this plan, you should be able to maintain a ketogenic state, avoid lectins, incorporate a fasting period of 14-16 hours, and keep the GKI below 3 for your patients. If you have any specific preferences or dietary restrictions, we can further customize this plan.



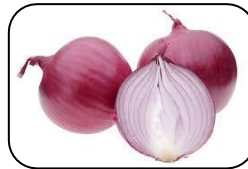
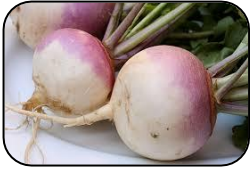
Proteins: Wild-caught fish (Salmon included), organic chicken, pasture-raised eggs.



Fats: Avocado, olive oil, coconut oil, ghee, grass-fed butter, MCT oil.



Vegetables: Leafy greens (spinach, kale, Swiss chard), cruciferous vegetables (broccoli, cauliflower, Brussels sprouts), asparagus, mushrooms, zucchini, Celery,



Vegetables Turnips, Garlic, Onions, Brussel Sprouts, Bok Choy, Okra.



Nuts and Seeds: Macadamia nuts, pecans, walnuts, chia seeds, Almonds nuts, Brazil nuts, flaxseeds, coconut (all in moderation).

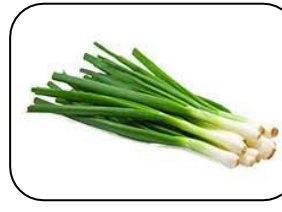


- **Beverages:** Water, herbal teas, coffee (without sugar or milk), bone or chicken broth.

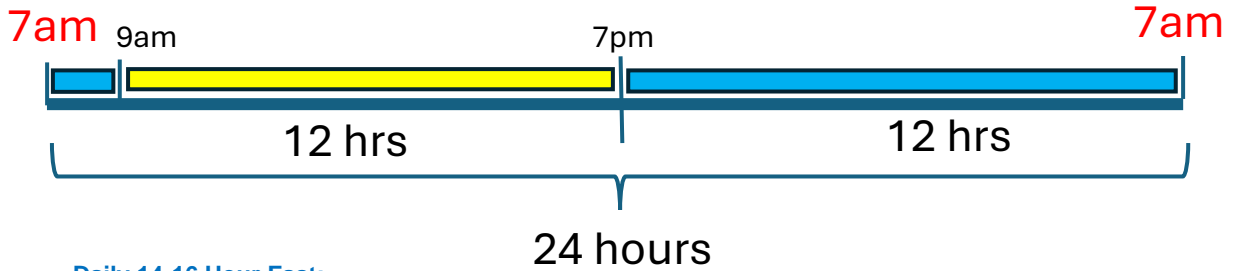
Fruit: Lemons, Blue Berry, Black berry Raspberry, Strawberry



Spices, Condiments: Curcumin (Turmeric), Paprika, Cayenne powder, Ginger, Basil, Spring Onion, Cilantro, Parsley, Oregano.



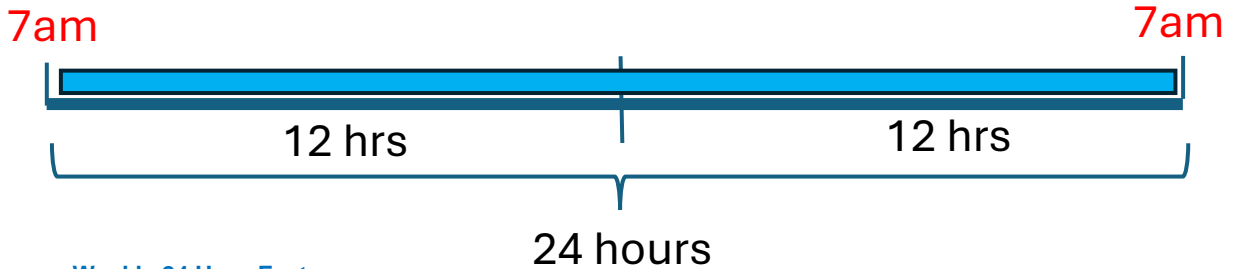
14 HOUR FASTING



Daily 14-16 Hour Fast:

- Eating Period: 9 AM to 7 PM.
- Fasting Period: 7 PM to 9 AM (adjust as needed).

24 HOUR FASTING



Weekly 24 Hour Fast:

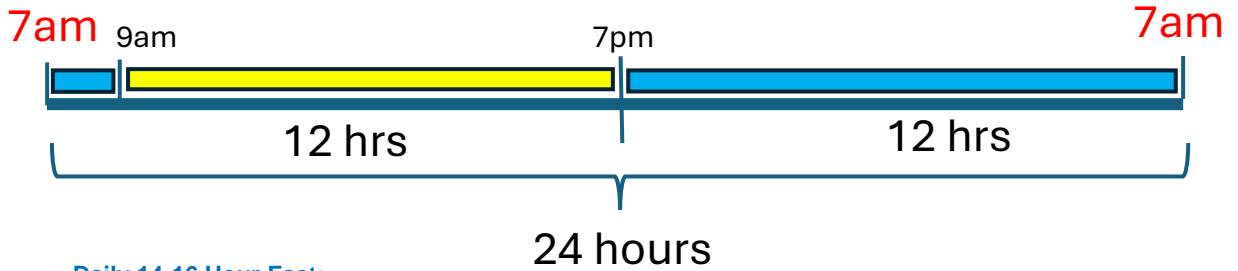
- Fasting Period: 7 PM to 7 PM (only water & tea).

AUGUST

2024

MON	TUE	WED	THU	FRI	SAT	SUN
14	14	14	14	14	14	24
5 14	6 14	7 14	8 14	9 14	10 14	11 24
12 14	13 14	14 14	15 14	16 14	17 14	18 24
19 14	20 14	21 14	22 14	23 14	24 14	25 24
26 14	27 14	28 14	29 14	30 14	31 14	24

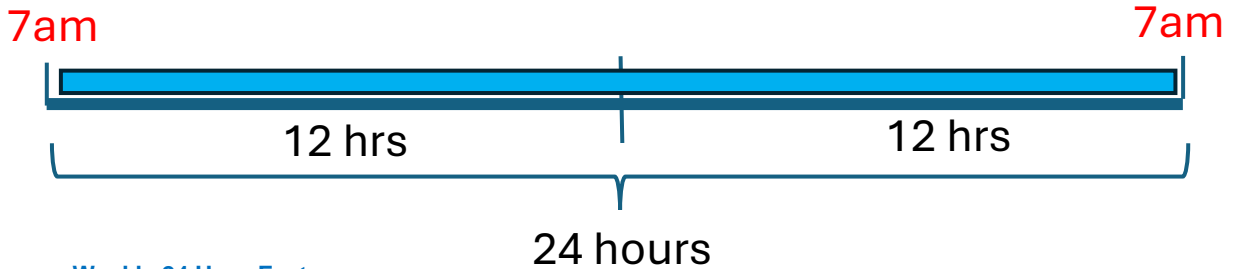
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19 14	20 14	21 14	22 14	23 14	24 14	25 24
26 14	27 14	28 14	29 14	30 24	31 24	24