


BioBites

a virtual house call for
your health and wellness

Understanding Cancer's Metabolic Origins

Tuesday, September 5th,
12 noon ET


MARION
INSTITUTE

 BIOMED

with Dr. Dickson Thom, DDS, ND
The BioMed Center, Scottsdale | Providence



Dickson Thom, DDS, ND

**BIOLOGICAL
MEDICINE**

CANCER
**Is it a Metabolic
Disease?**

Restoring HEALTH,
Preventing Disease,
Optimizing Performance

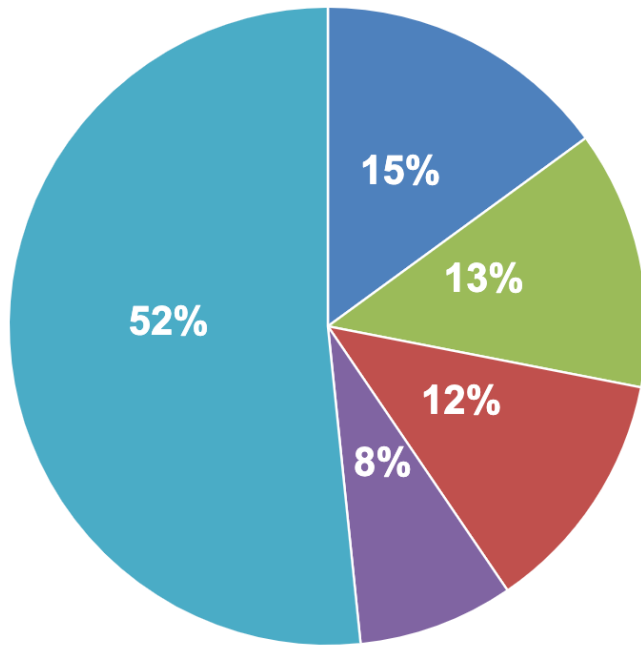


CANCER Statistics

- 37,200,000,000,000 cells (37.2 trillion)
- 330,000,000,000 new cells every day (330 billion)
- Thus, the potential for ONE cell mutation is HUGE
- **We all have potential cancer cells – every day**
- 1.96 million in U.S. diagnosed with cancer in 2023 (estimated)
- 610,000 in U.S. died in 2023 (estimated)
- **11,730 per week – 1,671 per day in 2023 (estimated)**

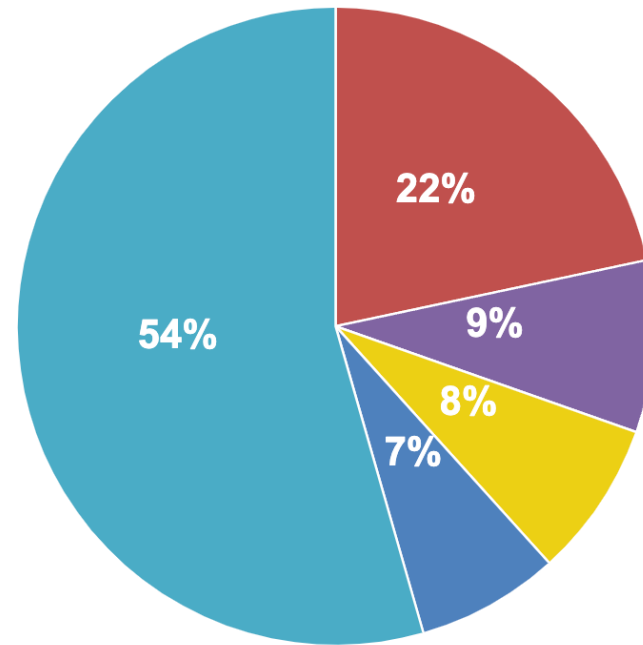


New Cancer Cases, 2021



- Breast: 284,200 (15%)
- Prostate: 248,530 (13%)
- Lung and bronchus: 235,760 (12%)
- Colon and rectum: 149,500 (8%)
- Other: 980,170 (52%)

Cancer Deaths, 2021



- Lung and bronchus: 131,880 (22%)
- Colon and rectum: 52,980 (9%)
- Pancreas: 48,220 (8%)
- Breast: 44,130 (7%)
- Other: 331,360 (54%)

Life Stages – No one is IMMUNE to CANCER



Infants

Children

Adolescents

Adults

Older Adults

**American Cancer
Society 2020**

MEN - 1 in 2

WOMEN - 1 in 3

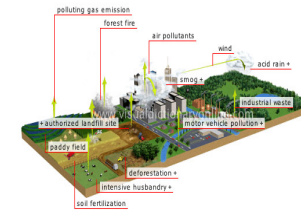
Cancer Physiology

The transformation of a normal cell to a tumor cell is linked to damaged DNA. It appears to be dependant on mutations in genes important in integrating extracellular and intracellular signals (i.e. cell growth exceeds death (apoptosis)).

Gene mutations may be inherited - 5-10% (through germ-line mutations - present in egg or sperm) or somatic mutations (acquired) – 90-95%.

Acquired Genetic Mutations Are Attributable to Nine Modifiable Risk Factors

- High body mass index
- Low fruit and vegetable intake
- Physical inactivity
- Smoking
- Alcohol misuse
- Unsafe sex
- Urban air pollution
- Indoor use of solid fuels
- Contaminated injections from healthcare settings with hepatitis B or C virus.



Lancet. 2005;366:1784-1793

Trauma – underlies many of the 9 factors

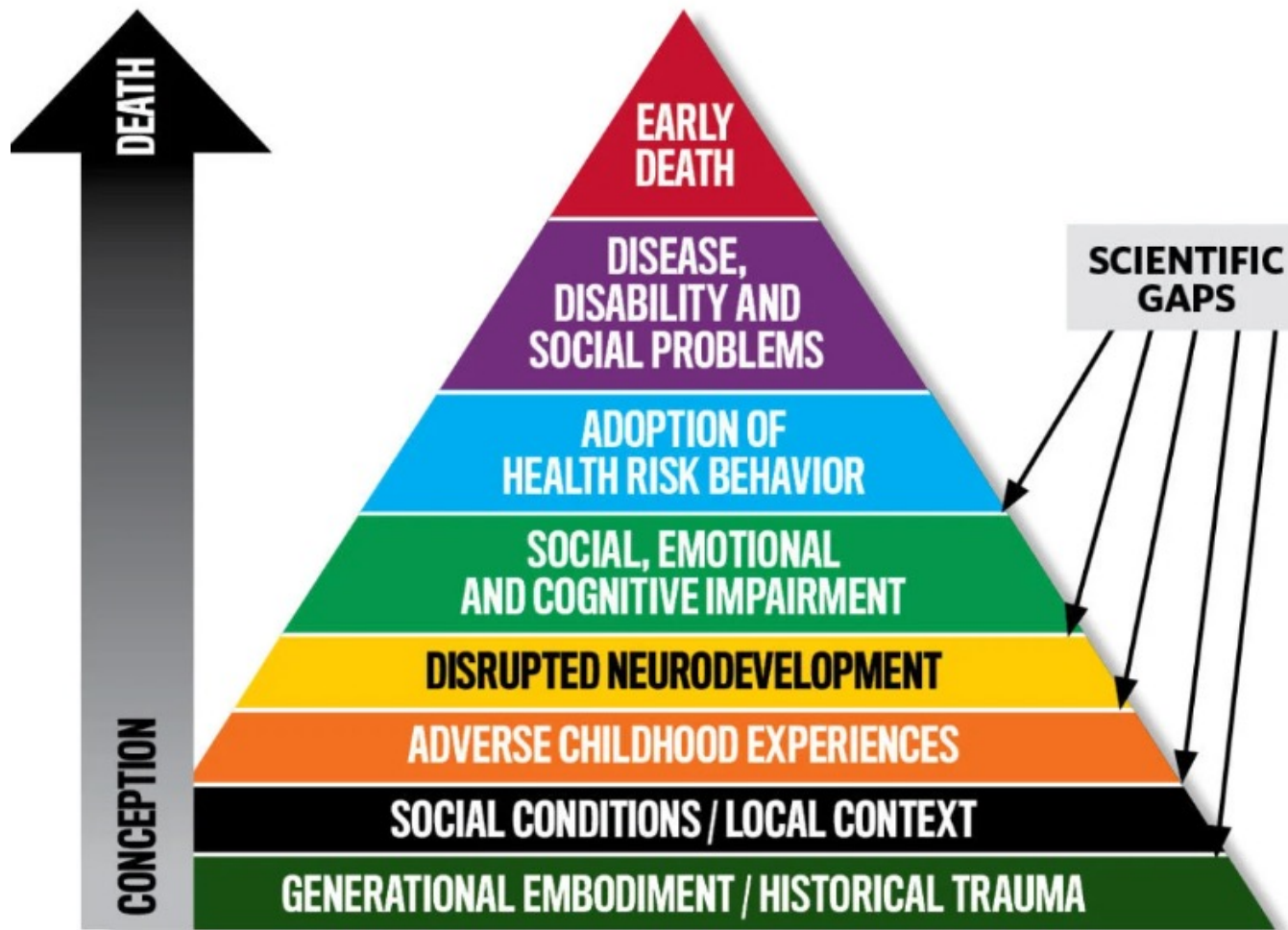
- Trauma overwhelms a person's coping capacity and has long-term effects on functioning and well-being.
- Normal, protective responses to stress (“fight, flight, or freeze”) are activated by the perception of a threat/ trauma/ stress
- Trauma is common. Between 55 and 90% of us have experienced at least one traumatic event, and on average nearly five traumatic events.
- The impact of trauma is often deep and life-shaping.
- Trauma can result in a wide range of responses including intense feelings of fear, loss of trust in others, decreased sense of personal safety, guilt, and shame.
- AND all this DOES affect DNA mutation, a recognized cause of cancer

An iceberg is shown floating in the ocean. The top part of the iceberg is visible above the water surface, while a much larger, jagged portion is submerged below. The sky is blue with light clouds, and the water is a deep blue. A red-bordered box is superimposed on the upper right part of the image, containing text.

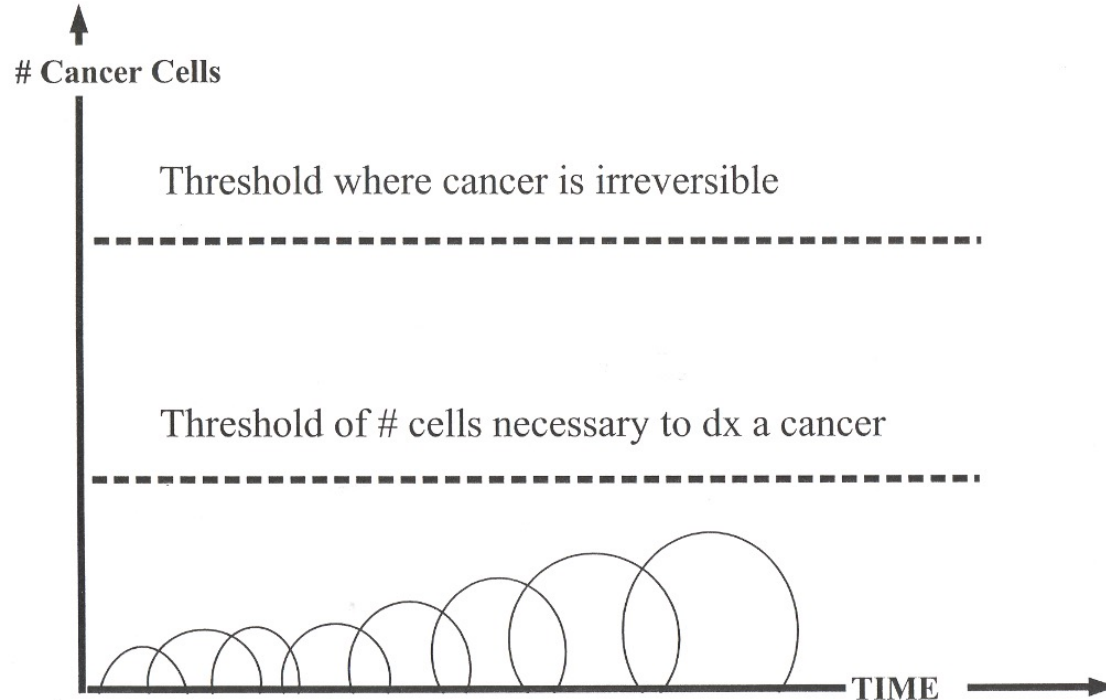
These are the obvious traumas people are aware of that have a negative impact

But the BIGGER issues are the MANY traumas the brain is not capable of interpreting and remembering at the time of the trauma event

How ACEs influence health and well-being throughout life



Cancers develop from initial mutations in a single cell, they are by nature monoclonal. The growth from that single mutated cell in adult-onset cancers is typically very slow with a latency of **20-30 years**. During this time a succession of genetic and epigenetic events is required for cancer to develop.



Cancer Triggers

1. Molecular Mechanisms

A genetic disease resulting from mutations affecting genes that control normal cell function.

2. HOST FACTORS

1. Heredity
2. Hormones
3. Immune mechanisms

3. ENVIRONMENTAL CAUSES

Chemicals
Radiation
Infectious agents

4. LIFESTYLE ENVIRONMENT

Tobacco
Dietary
Sexual

5. GENERAL ENVIRONMENT

Occupational
Health Care exposures
Air, Water, Soil Exposures

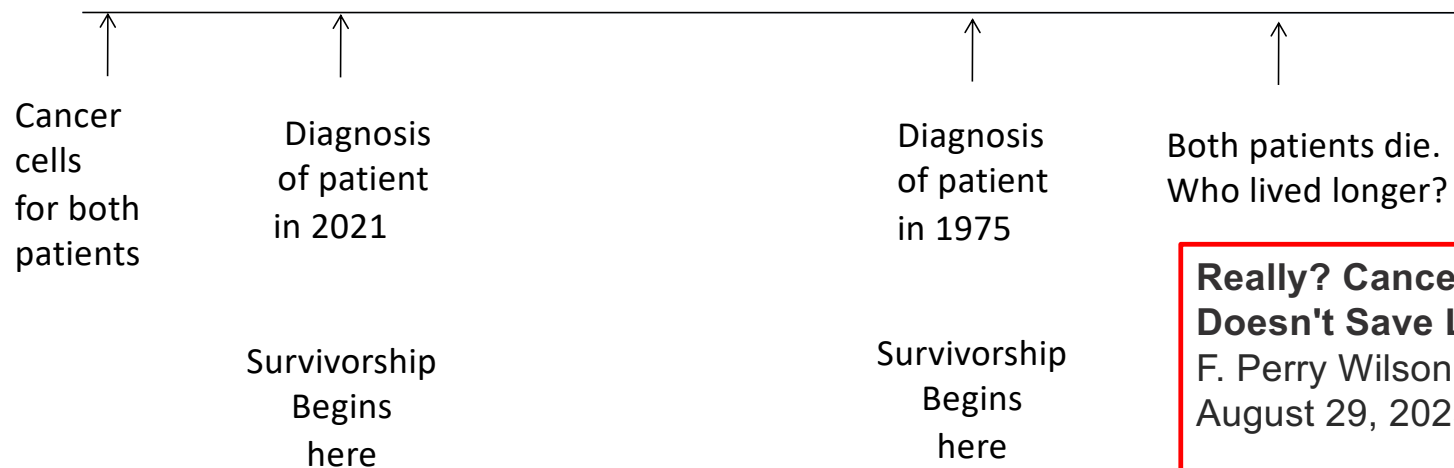
Cancer Deaths Decreasing (are they?)

Compare these 2 patients with breast cancer.

In 1975, 5-year survival was 75%

In 2021, 5-year survival is 99% (for localized), 29% for stage 4 (METS)

Timeline



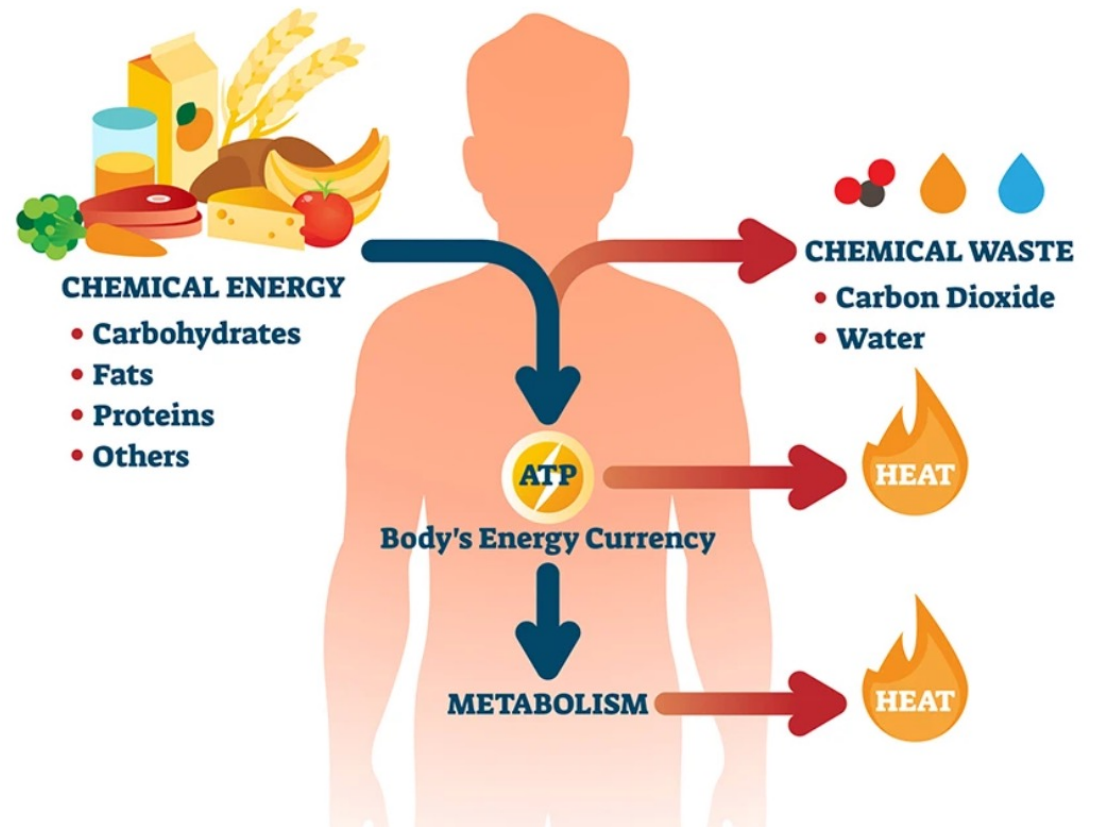
Really? Cancer Screening Doesn't Save Lives?

F. Perry Wilson, MD, MSCE
August 29, 2023

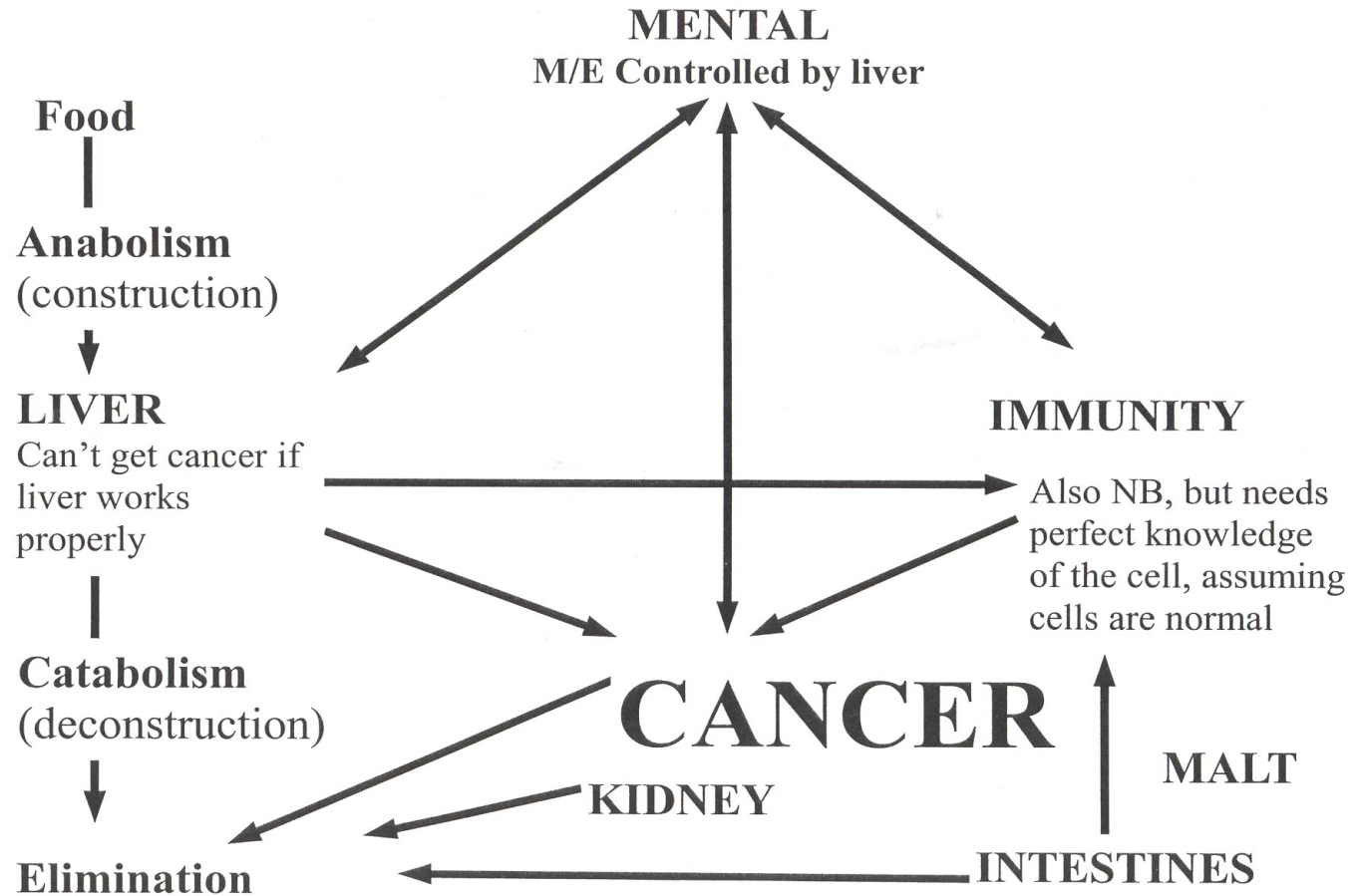
Medscape family medicine

Cancer as a metabolic disease

Metabolism



**All 11
Organ
Systems
in
Balance
is your
#1
Prevention**

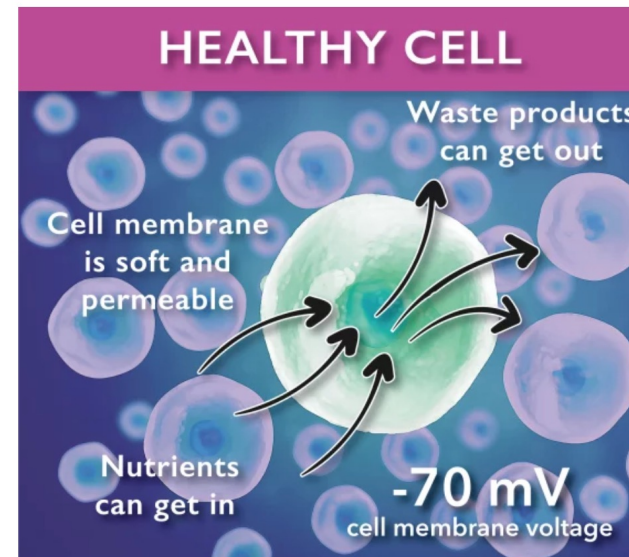
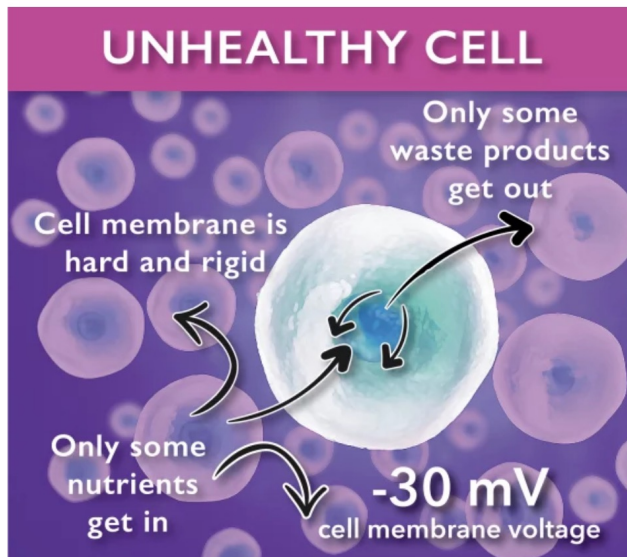


The body is a large **Electromagnet** that produces electric fields.

- According to Nobel prize winner Otto Warburg, we have cell voltages.
- A **NORMAL** healthy cell has an electrical potential of -70 to -90 millivolts,
- an **AGED** cell at -50 mV to -35 mV, and
- a **CANCER** or **ILL** cell is -15 mV



The appropriate cellular voltage of a cell should be around -70 mV to ensure a proper electrochemical grid that helps facilitate electron transfer and for cells to function properly at a normal rate. Electrons provide a negative charge and when there is not enough electron availability, chemical processes get stuck, which is generally around -40 mV where pain, inflammation, arthritis, and at -15 mV, cancer cells begins to thrive.



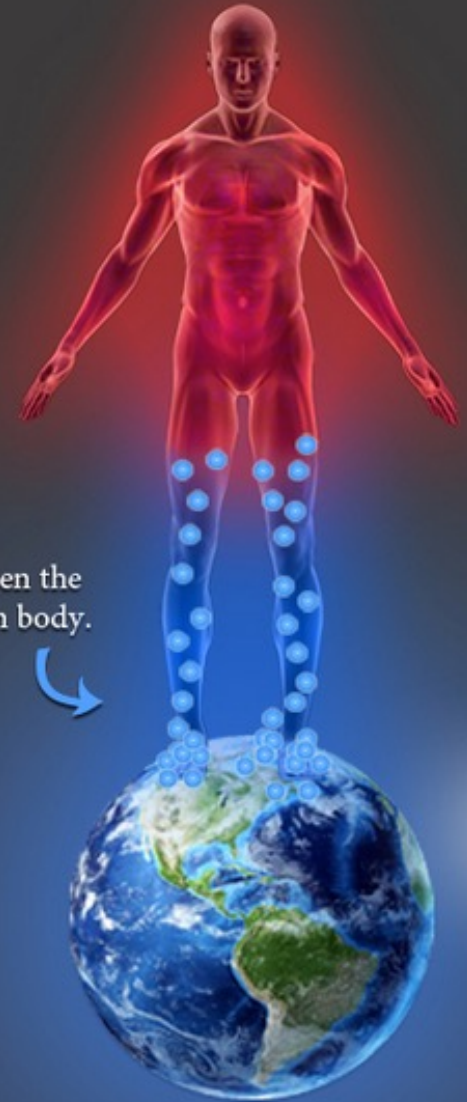
Atomic Structure of the Body



Adding **Electrons**

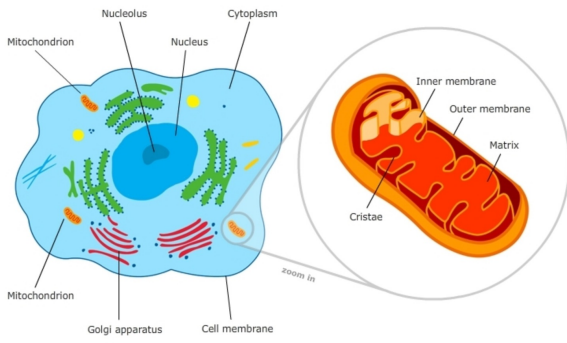
Ion Cleanse
Amp coil
Electrons Plus
PEMF
Light
BioMat

Electrons moving freely between the Earth and the grounded human body.



Otto Warburg (1883 – 1970)

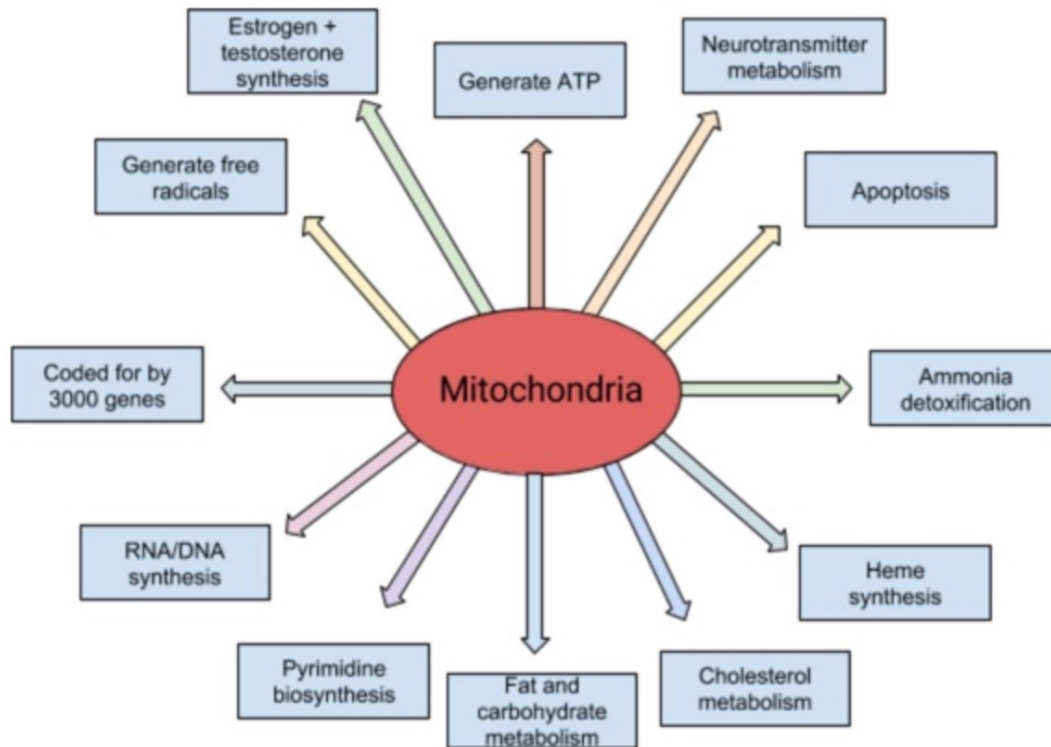
- In order to survive, normal cells use oxygen via the Krebs cycle to survive.
- Warburg discovered that cancer cells were low in oxygen due to a change in cellular respiration from using oxygen to using the fermentation of sugar.
- Prolonged exposure to toxins, especially in combination with cells which have not been properly nourished, oxygenated, hydrated and cleansed is a primary cause of cancer. Over time the stress and inflammation that result from toxins leads to a **dysfunction in the cellular mitochondria**.
- Cancer cells revert to a more primitive form of respiration (sugar fermentation), refuse to die, multiply and form a protective barrier.



The mitochondria make over 90% of the body's energy in the form of adenosine triphosphate (ATP). ATP releases energy when it is broken down.

This energy is vital to sustain life and support healthy organ function. The body's main energy consumers are the brain, muscles, liver, kidneys, gastrointestinal tract, heart and lungs.

As important as this role is, mitochondria are also key players in many other bodily processes.



Warburg Effect in Oncology

- The **Warburg hypothesis**, sometimes known as the Warburg theory of cancer, postulates that the driver of tumor growth is an insufficient cellular respiration caused by insult to mitochondria. The term **Warburg effect** describes the observation that cancer cells exhibit glucose fermentation and can live and develop, even in the absence of oxygen. Tumor tissues metabolize approximately tenfold more glucose to lactate in a given time than normal tissues.
- That is, cancer cells function well in anaerobic conditions by fermentation of glucose to lactate.
- Depriving the cancer cells of a fermentable carbohydrate (sugar), will starve them to death.
- All this to say – a primary cause of cancer is the replacement of the respiration of oxygen (oxidation of sugar) in normal body cells by fermentation of sugar in cancer cells.
- In every case, during the cancer development, the oxygen respiration always falls, fermentation appears, and the highly differentiated cells are transformed into fermenting anaerobes, which have lost all their body functions and retain only the now useless property of growth and replication. Thus, when respiration disappears, life does not disappear, but the meaning of life disappears, and what remains are growing masses that destroy the body in which they grow.

FOOD choices are ESSENTIAL



The primary goal is to minimize the release of **INSULIN**.

Cancer cells take up insulin 4x greater than healthy cells. So, we must focus on “whole” foods” lots of colors, lots of micronutrients.

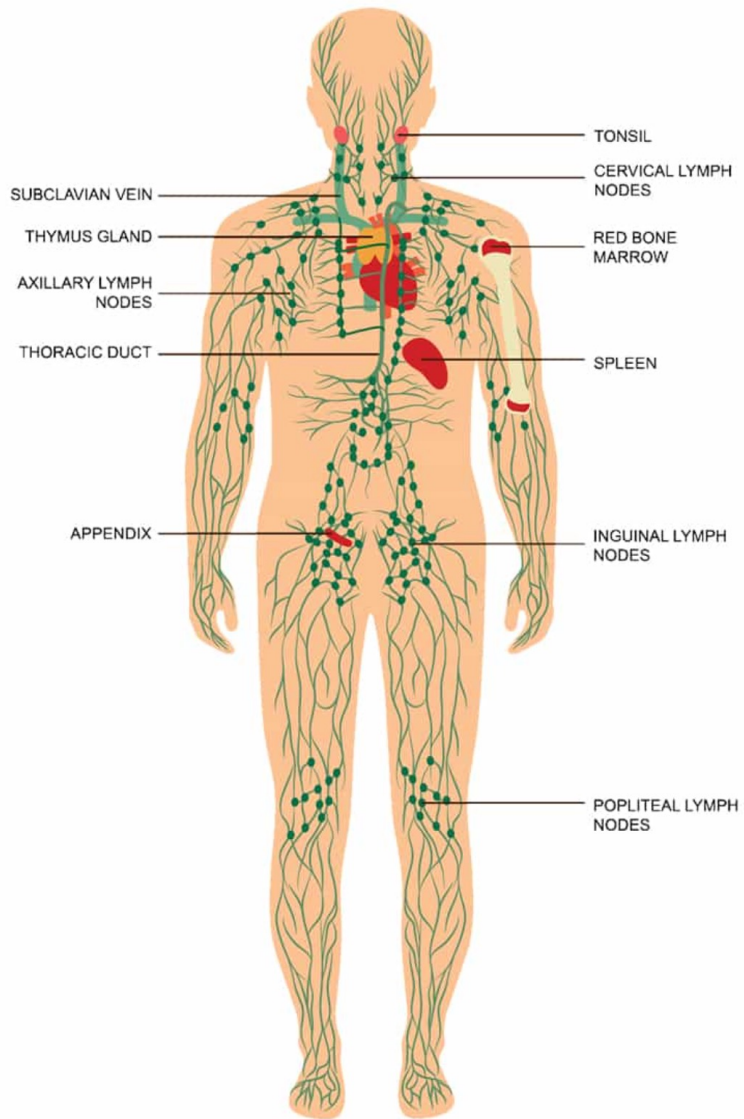
A proper balance of carbs, protein and FATS.

Cancer cells can't metabolize fat.



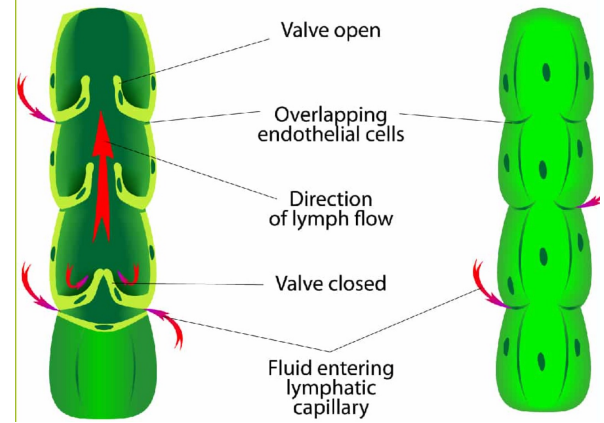
**Cancer cells do NOT survive in a high
OXYGEN environment**

NanoVi
Valkion
EWOT
Hyperbaric
EBOO
Hocatt
Ozone

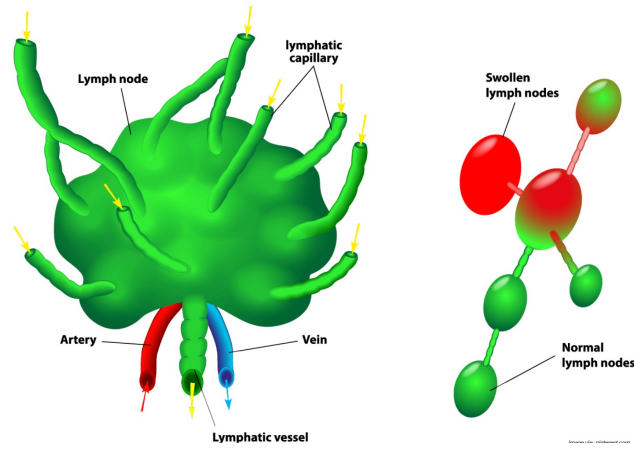


Lymph stagnation is virtually universal in cancer patients

Lymphatic Vessels



Lymph Node



Manual
 Sonix
 FlowPresso
 Lymphstar
 Hemosonic
 ST 8
 Qi machine



IV Therapy

- Micronutrients
- High dose vitamin C
- Ozone
- others





One Size Does Not Fit All!
Treatment must be individualized

Biological Medicine Primary Strategies

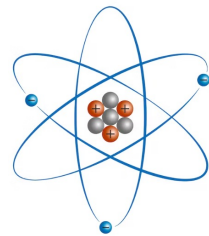
- Detoxify from exposed carcinogens
- Address fears, negative feelings
- Enhance cell-to-cell communication (ECM cleansing)
- Improve terrain (miasm, temperament, constitution)
- Remove promoters such as environmental toxins, dietary issues, toxic emotional stressors
- Support DNA repair
- Control inflammation
- Optimize BMI
- Use synergies of natural therapies
- Support balanced immune function
- Reduce side effects
- Detox from chemo and radiation treatments
- Prevention of recurrence or new cancer formation

Which of these Current Cancer Therapies address the metabolic aspects of cancer?

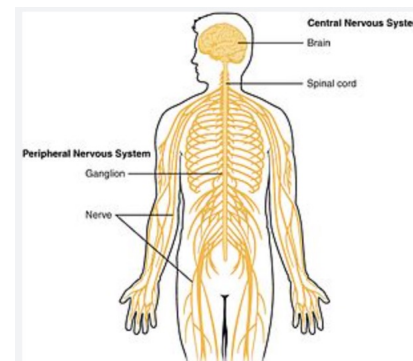
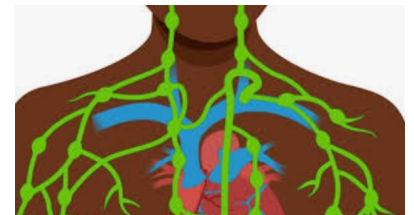
- Surgery
- Radiation
- Chemotherapy
- Biological and Targeted Therapies

In summary, your cancer treatments must minimally include the following

1. Electrons
2. Oxygen
3. Lymphatic
4. Nervous system
5. Minerals



Atom structure
● Proton
● Neutron
● Electron



Up and Coming Therapy – Frequency!

- TED talk - Shattering cancer with resonant frequencies:
Anthony Holland (music professor at Skidmore college)

https://youtu.be/1w0_kazbb_U?feature=shared



Image of ovarian cancer cells being destroyed by a specific pulsating EM frequency

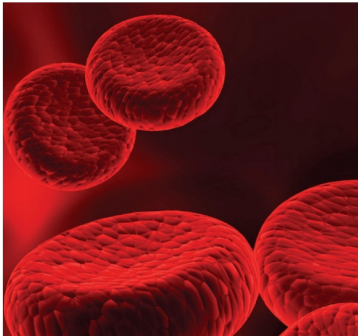
AN INTRODUCTION TO FREQUENCY TECHNOLOGY

This technology is based on integrated sound and light used for the purpose of controlling microorganisms (pathogens). It was first developed and used by Dr. Royal Raymond Rife in the 1930s. Its principle is based on two basic phenomena occurring in the human body:

Firstly, because cells and organs are electrical in nature, there are many biological interactions that occur at the cellular level when the pulsed electromagnetic field emanates from a frequency device. It is understood when such an instrument is running on any frequency, the body takes on an electrostatic charge. This process raises the electrical voltage of the cells, which excites the cells in the body and enables them to communicate with each other more effectively. This enhanced communication in turn, assists the body in becoming more balanced – working towards homeostasis. In other words, frequency devices are tools that support the body in its repair process.



Secondly, based on the premise that all living matter vibrates to a specific frequency, it is known there is another major occurrence in the body when a specific pathogen resonates with a specific frequency. When this matching resonance of the pathogen and the emanating frequency occurs, the life force of the pathogen is immobilized or devitalized and what we then have is kill off. The receiving subject may then experience herx or detox.



Plasma Emission Resonant Light

The technology is based on integrated sound and light used to control microorganisms. It was first developed by Dr. Royal Rife in the 1930's and is based on PEMF affecting the electrical charge in a cell and also generating a specific frequency to immobilize the life force of a pathogen and cancer cells.

**REMEMBER -
CANCER**

**is only a word,
not a sentence**

A banner for a virtual house call. The background is dark blue with several pink, textured spheres representing cancer cells. The text is white and arranged in a clean, professional layout.

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Questions?

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