

Oxygen and Cancer

We can live a long time without food, a couple of days without drinking, but life without breath is measured in minutes. Something so essential deserves our full attention but rarely gets it unless you are a yoga practitioner. Breath is the most important of all the bodily functions and without it we simply are dead. In reality we take O₂ for granted and with it our breathing, which most of us do quite badly. And now we even have a huge federal government wanting to make oxygen's twin into public enemy number one¹ and that is a sin.

Researchers found that an increase of 1.2 metabolic units (oxygen consumption) was related to a decreased risk of cancer death, especially in lung and gastrointestinal cancers.²

The makeup of the human body is largely composed of the element oxygen. Oxygen (O₂) physiology takes us down to the foundation of life and it is there where we meet up with some other structural substances like water (H₂O), carbon, bicarbonate and CO₂ (Oxygen's necessary twin gas), magnesium, sulfur and then a host of other important substances like iodine and selenium and all the basic amino acids and on and on. We need all the basic building blocks of life and even the absence of one vitamin can make us deadly sick. But we need carbon and oxygen every moment of everyday or we will die. We humans are kind of like blow torches or blazing rockets, the flame of our lives are fed second to second from the twin gases of O₂ and CO₂.

The prime cause of cancer is the replacement of the respiration of oxygen in normal body cells by a fermentation of sugar.

Oxygen levels are sensitive to a myriad of influences. Toxicity, emotional stress, physical trauma, infections, reduction of atmospheric oxygen, nutritional status, lack of exercise and especially improper breathing will affect the oxygen levels in our bodies. **Any element that threatens the oxygen carrying capacity of the human body will promote cancer growth.** Likewise any therapy that improves the oxygen function can be expected to enhance the body's defenses against cancer. In order for cancer to 'establish' a foothold in the body it has to be deprived of oxygen and become acidic. *If these two conditions can be reversed cancer can, not only be slowed down, but it can actually be overturned.*

Oxygen is the source of health. Oxygen is essential to the human body, extending effects beyond breathing.

Dr. D. F. Treacher and Dr. R. M. Leach write, "Mammalian life and the bioenergetic processes that maintain cellular integrity depend on a continuous supply of oxygen to sustain aerobic metabolism. Reduced oxygen delivery and failure of cellular use of oxygen occur in various circumstances and if not recognized result in organ dysfunction and death. **Prevention, early identification, and correction of tissue hypoxia are essential skills.** An understanding of the key steps in oxygen transport within the body is essential to avoid tissue hypoxia. Although oxygen is the substrate that cells use in the greatest quantity and on which aerobic metabolism and cell integrity depend, the tissues have no storage system for oxygen. They rely on a continuous supply at a rate that precisely matches changing metabolic requirements. If this supply fails, even for a few minutes, tissue hypoxaemia may develop resulting in anaerobic metabolism and production of lactate."³

Not enough oxygen to the brain is the main cause of memory loss, inability to find the right words, getting words mixed up and not being able to speak in sentences.

In the 1920s Dr Otto Warburg carried out a great deal of work on cancer's basic mechanism and was awarded a Nobel Prize in 1932. Warburg's work clearly demonstrated that **cancer is, fundamentally, a relatively simple disease where cell oxygen levels fall to a level sufficiently low enough for the cell to change in nature.** Without a dependable supply of oxygen, the cells in our bodies cannot function properly. Nutrients in our diets must have oxygen present to convert their potential energy into usable energy. In order for new cells to be formed, hundreds of amino acids must link together using oxygen as the source of their energy.

All normal body cells meet their energy needs by respiration of oxygen, whereas cancer cells meet their energy needs in great part by fermentation.

Poor oxygenation comes from a buildup of carcinogens and other toxins within and around cells, which blocks and then damages the cellular oxygen respiration mechanism. As more acid wastes back up, and the body slowly stewes in its poisonous wastes, a chronically over acidic body pH corrodes body tissue, slowly eating into the 60,000 miles of our veins and arteries like acid eating into marble. Clumping up of red blood cells slows down the bloodstream, and restricts flow of O₂ into capillaries, which just adds to the worsening conditions. Even lack of the proper building blocks for cell walls, essential fatty acids and magnesium, restricts oxygen exchange.

Cancer needs anaerobic - airless - conditions to grow and spread. What orthodox oncologists don't see clearly is that cancer is not only human cells, which have changed their nature, but infectious entities that are thriving under these low O₂ conditions. Doctors

need to consider both the altered cells and the infectious pathogens thriving off these cells as the combined enemy we call cancer.

In 1966, after his efforts had been ignored by the cancer industry for over thirty years, Warburg addressed a group of fellow Nobel Laureates, reiterating his views and concluded, "Nobody today can say that one does not know what cancer and its prime cause be. On the contrary, there is no disease whose prime cause is better known." Dr Warburg's work has never been refuted but it certainly has been avoided by orthodox oncology.

So its no surprise on the first day of August 2009 that we find published in the journal Cancer Today **a ground-breaking study revealing that injecting oxygen into cancerous tumors significantly boosts the chances of recovery.** Scientists at Oxford University found slightly increasing the supply strengthened blood vessels in cancer cells, making chemotherapy more effective. 4 Scientists had previously tried to starve tumors of oxygen, believing a more stable blood supply would only help the cancer spread.

In all serious disease states we find a concomitant low oxygen state. Low oxygen in the body tissues is a sure indicator for disease. Hypoxia, or lack of oxygen in the tissues, is the fundamental cause for all degenerative disease.

Levine

Dr. Stephen
Molecular Biologist

Medical scientists are excited to have uncovered what they thought was a brand new approach to cancer treatment. Because they never paid Warburg any attention they thought that by increasing an oxygen supply to tumor cells they would help them grow. But actually by oxygenating the cell they found the opposite and were able to do a better job of killing them. They even found in patients with pancreatic cancer, which is notoriously difficult to treat, that the results were also positive.

A CO2 deficit caused by deep breathing leads to oxygen starvation in the cells of the body. This state is known as hypoxia.

The response of a tumor to chemotherapy or radiation is directly related to the level of tumor hypoxia (low O₂) so these researchers from England got excited because they saw their radiation and chemo protocols effectiveness increase. **More hypoxia corresponds with greater resistance to treatment as well as increased tendency to metastasize.** It is all laid out in front of us now; there is a growing consensus about this universal constant of cancer. Cancer thrives in low oxygen high acid conditions so we are practicing good medicine (appropriate oncology) when we increase total tissue O₂ levels.

A healthy cell breathes oxygen for energy. A cancer cell shuns oxygen and ferments sugar instead for its energy requirements.

*Because of this difference between healthy cells and cancer cells, Warburg argued, cancer should be interpreted as a type of **mitochondrial disease**.*⁵

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Hypoxemia or what might be called "blocked oxidation," is followed by fermentation of sugar in cells, which then leads to **the primary condition upon which cancer, infectious and inflammatory processes feed**. Viruses are "anaerobic" creatures which thrive in the absence of oxygen. Yeast, mold and fungus live in an anaerobic environment. Most strains of harmful bacteria (and cancer cells) are anaerobic and are not comfortable in the presence of higher oxygen levels so doctors will find cancer cells easier to kill when oxygen levels are increased. What they did not guess at is that O₂ levels can be dramatically increased by the simple administration of sodium bicarbonate. Increasing CO₂ levels through the use of sodium bicarbonate is good in cancer treatment because bicarbonate drives up CO₂ levels in the blood, which **increases oxygenation to the cells**. This is discussed fully in the chapter on carbon dioxide.

There are many homeostatic adaptation responses that fight to maintain pH balance but the principle one is using high pH bodily fluids such as **water** as a solvent to neutralize acid residues. The second greatest resistance the body puts up against dropping pH is pulling **bicarbonate** from the pancreas and kidneys into the blood as an alkalizing agent. Bicarbonate ions are generated from carbon dioxide and diffuse into the plasma. Then there are other levels of protection but when they are all overwhelmed the end result is **accumulated acid residues at the cellular level that drown out oxygen**.

Sodium bicarbonate is safe when taken with appropriate caution⁶ and knowledge, extremely inexpensive and effective when it comes to reducing cancer tissues. It's an irresistible chemical, cyanide to cancer cells for it hits the cancer cells with a shock wave of alkalinity, which allows much more oxygen into the cancer cells than they can tolerate. Cancer cells do not survive well in the presence of higher levels of oxygen.

Oncologist Dr. Tullio Simoncini, the founder of the bicarbonate approach to cancer, believes that only several types of cancer can be approached through oral application of bicarbonate. He suggests expensive and hard to get (meaning hardly any physician will do

them in any country) medical procedures (placement of catheters) and IVs to get the bicarbonate as close to the tumors as possible.

Dr. Simoncini never realized that when bicarbonate is taken orally the full body pH is shifted dramatically higher affecting all tissues including the brain and bones. He does not understand that oral administration is actually a superior method for all cancers because higher pH and oxygen levels can be maintained 24 hours a day constantly wearing down tumors and individual cancer cells wherever they might be. The difference in costs between oral and transdermal dosing with bicarbonate and catheters and IVs is enormous with the oral weighing in at pennies a day. That alone can make the difference between life and death for millions of people who could not get and cannot afford expensive treatments. I recommend people contemplating doing the oral method to also use bicarbonate heavily transdermally and to read my book *Sodium Bicarbonate – Rich Man's Poor Man's Cancer Treatment* because one needs to really understand what they are doing.

Just as there are many ways to skin a cat there are many important ways to approach cancer and the task of increasing O₂ to all the bodies' tissues. Other doctors have concentrated on hydrogen peroxide, ozone and hyperbaric oxygen chambers. In following sections we address exercise, proper breathing (which is very important) and magnesium supplementation, which are basic elementary approaches available, affordable and legal for all.

Oxygen Carrying Capacity and Magnesium

In another chapter we will see how important magnesium is when it comes to oxygen metabolism and oxygen carrying capacity. We will see that magnesium ions regulate the stability of the red cell membrane, which is crucial. Magnesium enhances the binding of oxygen to haem proteins and abnormal magnesium deprived red blood cells lack flexibility that allows them to enter tiny capillaries. Red blood cell (RBC) deformability is an important factor in determining movement of red blood cells through the microcirculation and appropriate magnesium levels help to insure the microcirculation does not contract and calcify.

Diet is very important and there is nothing like green leafy vegetables (lots of magnesium and chlorophyll, which has the same chemical structure as hemoglobin) and an all round alkaline diet for bringing up the oxygen carrying capacity of the body. Magnesium chloride and sodium bicarbonate are the perfect combination of concentrate nutritional substances helping to fire up the mitochondria's normal energy producing functions as well as increasing overall oxygen carrying capacity. Both can be taken orally as well as applied

transdermally and they both can be added to mineral or distilled water to make ones water intake into medicine.

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