

This concludes my series of chapters on sodium bicarbonate and the section of the cancer book called *Yeast and Fungi Invaders*, which will soon be published as a separate book - **Sodium Bicarbonate Therapy**, *Yeast and Fungi Invaders*. My entire work with sodium bicarbonate was inspired of course by the genius and bravery of Dr. Tullio Simoncini, an oncologist in Rome. Sodium bicarbonate should be used by most people with chronic disorders, even by the wealthy that would benefit tremendously by this poor man's folk remedy that has had a secret life as an effective emergency room and intensive care medicine.

We must remember that sodium bicarbonate is effective on cancer tissues when it is in direct contact with them. There is sea of difference between direct contact and oral administration of  $\text{NaHCO}_3$ . Studies that experiment with oral administration are not applicable to intravenous systemic alkaline infusions without catheters and the same is true in part in reverse. Bicarbonate is effective when taken orally for mouth, esophageal and stomach cancers for the same reason that bicarbonate is effective when used by catheter. In the mouth and until the stomach oral usage offers direct contact. Same with using it in douches and enemas it is effective for local cancers in which it comes into contact with. One can even make a paste and apply it to skin cancers or even take a bath in it for transdermal effect. It is advisable to rely more heavily on transdermal iodine and magnesium chloride as more primary treatment choices for skin cancer. The three together would be ideal.

Also it's important to remember that bicarbonate is nutritional, though like ascorbic acid, it is created by industrial process. It is one of the safest and most effective concentrated nutritional substances/medicines doctors and moms and dads have at their disposal. Some still call it dangerous and some hallucinate up some science to vindicate their opinions that it should not be used at all.

Sodium bicarbonate is found in almost every kitchen and makes an excellent replacement for toothpaste for it is excellent in stabilizing and curing problems in the oral cavity. There is really no end to the uses this extremely helpful concentrated food/medicine can be put to. Everyone knows its use as an anti-acid in Alka-Seltzer. Just remember it, like everything else in this life needs to be used with prudence. There is nothing that exists that does not have some danger implied, after all we can drown in water and get hit by a car walking down a quiet street. But after reading this book you will be a world class expert on sodium bicarbonate and laugh in the face of professionals who would warn you to try something more dangerous, less effective and certainly dramatically more expensive.

The acid test can always come down to feelings. Modern medicine would rather us stay away from our feelings and not use them as measurements of anything but they do offer us something that no medical test offers. With our ability to directly experience what is happening inside of us we can simply ascertain if we feel better using the bicarbonate or not. It is just important to remember when treating yourself with anything for a certain condition to rely on a broad protocol approach. We can create imbalances

when we use only one or two medicinal items to the exclusion of others that we also need to rebalance ourselves.

Sodium bicarbonate is a perfect medicine as is magnesium chloride and iodine. I have already written and published **Transdermal Magnesium Therapy**, which is the textbook of choice for magnesium treatments. **Iodine – Bringing Back Universal Medicines** is another book that will soon be published by the IMVA. Together these three substances make up a holy trinity of pure healing curing power. They are the top three in my full protocol of twenty, which will be published in **Perfect Medicines**, Pharmacology in the Age of Toxicity. Almost all of these materials are already published in the [Winning the War on Cancer](#) book and that is why it is 850 pages long.

Mark Sircus Ac., OMD  
Director International Medical Veritas Association  
<http://www.winningcancer.com/>

## Sodium Bicarbonate and Carbon Dioxide

### Will Wonders Never Cease



Just recently I was confronted for my bicarbonate and maple syrup essay with the following information:

Baking soda (sodium bicarbonate) immediately reacts when it mixes with stomach acid.  $\text{NaHCO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$ . That is: Sodium bicarbonate + stomach acid yields salt + water + carbon dioxide.

The confronting clinician stated that neither the sodium cation nor sodium bicarbonate is taken up significantly into a cancer cell nor into any kind of cell. The bottom line: Maple syrup with sodium bicarbonate delivers sugar, salt, and carbon dioxide to the

body. And this is true, bicarbonate anion is considered "labile" since at a proper concentration of hydrogen ion ( $H^+$ ) it may be converted to carbonic acid ( $H_2CO_3$ ) and thence to its volatile form, carbon dioxide ( $CO_2$ ). Little did this clinician know that **a lack of carbon dioxide is a starting point for different disturbances in the body. If this continues for a long time then it can be responsible for diseases, ageing and even cancer.**

*Sodium ( $Na^+$ ) is the principal cation of the extracellular fluid and bicarbonate ( $HCO_3^-$ ) is a normal constituent of body fluids and the normal plasma level ranges from 24 to 31 mEq/liter.*

Few people know that a decreased level of carbon dioxide in the blood leads to decreased oxygen supply to the cells in the body including in the brain, heart, kidneys etc. Carbon dioxide ( $CO_2$ ) was found at the end of the 19th century by scientists Bohr and Verigo to be responsible for the bond between oxygen and haemoglobin. If the level of carbon dioxide in the blood is lower than normal, then this leads to difficulties in releasing oxygen from haemoglobin. Hence the Verigo-Bohr law.

*According to the Verigo-Bohr effect, we can state that a  $CO_2$  deficit caused by deep breathing leads to oxygen starvation in the cells of the body.*

A Russian doctor named Konstantin Buteyko is most responsible for drawing attention to the importance of carbon dioxide for body metabolism and how the lack of it can cause chronic diseases; this constitutes a major breakthrough in medical science. A molecule of carbon dioxide ( $CO_2$ ) consists of one carbon and two oxygen atoms. Colorless and odorless, it is hard to detect. The amount of carbon dioxide in the atmosphere has been in flux throughout the Earth's history

Public opinion tends to think of carbon dioxide as a waste product or even a poison. (It is sometimes confused with carbon monoxide, which is a poison). Way back in the 19th century, Zuntz, in Berlin, recognized that carbon dioxide, unlike oxygen, is not carried by haemoglobin. He showed that, in the blood, carbon dioxide is combined with bases, chiefly as sodium bicarbonate, which plays a part in acid-alkaline balance. All the carbon dioxide is dissolved in the plasma, both in simple solution and that combined with alkali into the bicarbonates.

"Another natural misconception is that oxygen and carbon dioxide are so far antagonistic that a gain of one in the blood necessarily involves a corresponding loss of the other. On the contrary, although each tends to raise the pressure and thus promote the diffusion of the other, the two gases are held and transported in the blood by different means; oxygen is carried by the haemoglobin in the corpuscles, while carbon dioxide is combined with alkali in the plasma. A sample of blood may be high in both gases, or low in both gases. **Under clinical conditions, low oxygen and low carbon dioxide generally occur together. Therapeutic increase of carbon dioxide, by inhalation of**

**this gas diluted in air, is often an effective means of improving the oxygenation of the blood and tissues".[i]**

*In medicine, up to 5% carbon dioxide is added to pure oxygen for stimulation of breathing after apnea and to stabilize the O2/CO2 balance in blood.*

Biologist Dr. Ray Peat tells us that "breathing pure oxygen lowers the oxygen content of tissues; breathing rarefied air, or air with carbon dioxide, oxygenates and energizes the tissues; if this seems upside down, it's because medical physiology has been taught upside down. And respiratory physiology holds the key to the special functions of all the organs, and too many of their basic pathological changes." [ii]

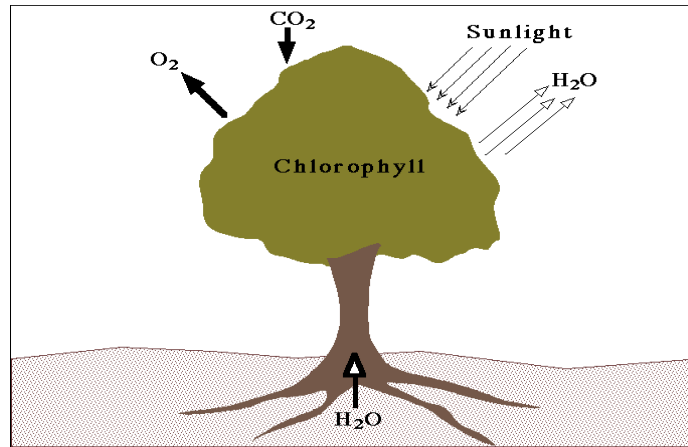
*People who live at very high altitudes live significantly longer; they have a lower incidence of cancer (Weinberg, et al., 1987) and heart disease (Mortimer, et al., 1977), and other degenerative conditions, than people who live near sea level.*

Dr. Peat continues saying that, "Breathing too much oxygen displaces too much carbon dioxide, provoking an increase in lactic acid; too much lactate displaces both oxygen and carbon dioxide. Lactate itself tends to suppress respiration. Oxygen toxicity and hyperventilation create a systemic deficiency of carbon dioxide. It is this carbon dioxide deficiency that makes breathing more difficult in pure oxygen, that impairs the heart's ability to work, and that increases the resistance of blood vessels, **impairing circulation and oxygen delivery to tissues.** In conditions that permit greater carbon dioxide retention, circulation is improved and the heart works more effectively. **Carbon dioxide inhibits the production of lactic acid,** and lactic acid lowers carbon dioxide's concentration in a variety of ways."

"Otto Warburg established that lactic acid production is a fundamental property of cancer. It is, to a great degree, the lactic acid which triggers the defensive reactions of the organism, leading to tissue wasting from excessive glucocorticoid hormone," says Dr. Peat. Tumors do tend to be efficient at exporting lactate which drops the pH in the milieu of the tumor. The breakdown of glucose or glycogen produces lactate and hydrogen ions - for each lactate molecule, one hydrogen ion is formed.

*It is carbon dioxide deficiency that impairs circulation and oxygen delivery to tissues. Carbon dioxide inhibits the production of lactic acid, and lactic acid lowers carbon dioxide's concentration in a variety of ways.*

*Dr. Ray Peat*



**Thus we can begin to see that it is the lack of carbon dioxide in the body which is a cause of many disturbances in the metabolism of cells and tissues, which, in turn, can lead to disease.** Dr Buteyko said, "CO<sub>2</sub> is the main source of nutrition for any living matter on Earth. Plants obtain CO<sub>2</sub> from the air and provide the main source of nourishment for animals, while both plants and animals are nourishment for us. The great resource of CO<sub>2</sub> in the air was formed in pre-historical times when the amount was about 10%." **According to the Verigo-Bohr effect, we can state that a CO<sub>2</sub> deficit caused by deep breathing leads to oxygen starvation in the cells of the body.** This state is known as hypoxia and it badly affects the nervous system.

The best way to produce carbon dioxide is from physical activity but most people with chronic illness and cancer unfortunately do not exercise. Are you starting to understand how important sodium bicarbonate can be to the chronically ill person? And why it is such a potent emergency room and intensive care medicine? There are different techniques designed for increasing carbon dioxide levels in the blood. Dr Buteyko developed a system where by breathing techniques controlled asthma. The ancient yogis with their yogic breathing and NASA controls spaceship climates with these issues in mind. Natural medicine makes proper breathing very important because the central mechanism to maintain CO<sub>2</sub> levels is correct breathing.[iii] The clinical choice often is IV injection of bicarbonate in emergency situations but the rest of us can take the easy and extremely inexpensive way using oral sodium bicarbonate with or without maple syrup!

**Special Notes:** Serious precautions should be taken by individuals who suffer from chronic pulmonary problems. If a person has significant lung disease, their brain shifts to breathing in response to a lowered O<sub>2</sub> level so it won't respond to the accumulating CO<sub>2</sub>. With the added CO<sub>2</sub> and the lungs not removing it, the equation shifts left, meaning the added CO<sub>2</sub> becomes H<sub>2</sub>CO<sub>3</sub> (carbonic acid) and then you end up with an acidic patient.

[i] Henderson, Y. Carbon Dioxide. Article in Encyclopedia of Medicine. 1940.

[iii] <http://raypeat.com/articles/aging/altitude-mortality.shtml>

[iii] <http://www.positivehealth.com/article-view.php?articleid=1436>