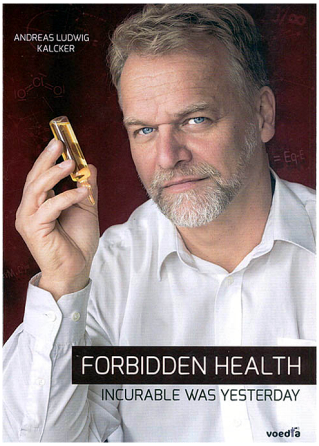

Known Facts about Chlorine Dioxide

Since the active substance in all the spontaneous remission cases mentioned above is chlorine dioxide, we should learn more about its fundamental properties, so let's research a bit.

1. *Haller JF, Northgraves WW. 1955. Chlorine dioxide and safety. TAPPI Journal 38:199-202.*
2. *Dalhamn T. 1957. Chlorine dioxide. AMA Arch Ind Health 15(2): 101-107.*
3. *Shi L, Xie C. 1999. Experimental observation on acute toxicity and irritative effect of stable chlorine dioxide. Zhongguo Xiaoduxue Z. 16(1):39-40.*
4. *Lin JL, Lim PS. 1993. Acute sodium chlorite poisoning associated with renal failure. Ren Fail 15(4):645-648.*
5. *Lubbers JR, Chauhan S, Bianchine JR. 1981. Controlled clinical evalutions of chlorine dioxide, chlorite and chlorate in man, Fundam A. Toxicol 1:334-338.*

The chlorine dioxide compound (ClO_2) is not a recent discovery. Humphrey Davy made this gas in 1814 by reacting hydrochloric acid with potassium chlorate. In the last few years, hydrochloric acid has been used to produce vast amounts of chlorine dioxide. Typically, sodium chlorite ($NaClO_2$) is used instead of potassium chlorate. Chlorine dioxide (ClO_2) is a synthetic gas that doesn't happen naturally. When dissolved in water, it has a yellow-greenish hue with an irritant smell similar to chlorine. Although their scents are similar, ***dioxide is very different from chlorine, in both chemical structure and behavior, because it's a chlorine neutral compound that doesn't combine readily with other substances.***

The key to the many recoveries from diverse diseases through the administration of a single substance (chlorine dioxide), and confirmed by hundreds of testimonials, is that there must be something in common in all the cases.

To begin with, it is an *oxidant*, a substance that facilitates combustion because it adds oxygen to all processes, in contrast to other drugs that usually work by poisoning the pathogens. *Oxygen doesn't accumulate in the body*, so this is a very different kind of pharmacological dynamic.

Our defensive cells use oxidation naturally in a similar way, as in the case of neutrophils that perform phagocytosis, which, in simple terms, is the swallowing and combusting of the enemy.

Chlorine dioxide is a yellowish-reddish gas that evaporates quickly into the air at temperatures above 11°C (51.8°F). As a gas (not dissolved in water), it is highly reactive and can provoke a deflagration at high concentrations and a gas pressure of over 10%, which is why it is usually made on-site, where it is going to be used. Industrial uses for chlorine dioxide include paper whitening, where it is used highly concentrated, and in huge quantities, in conjunction with sodium chlorate. Another is for public water disinfection to produce healthy and safe drinking water for human consumption. It's such an effective disinfectant that is used both for food disinfection and for the decontamination of military biological weapons like anthrax.

Due to its ability to remove viruses, fungi, and even spores, chlorine dioxide is an excellent substance for vegetable washing. It's safe to use and complies with all food regulations. It is used to eliminate listeria* and the E. coli bacteria from apples, potato blight, and green mold and bitter putrefaction from citric fruit. It is used in fish farming to fight infectious anemia and infectious pancreatic necrosis in salmon. Chlorine dioxide is the food industry's best option (authorized additive number= E926) because it has a very low residual toxicity and has proven to be a safe compound when used appropriately.

One key characteristic of chlorine dioxide is that it is extremely soluble in water, without creating further chemical bonds. That is, the gas completely dissolves in water, among other reasons, because its cellular structure is very similar to that of water.

Once it dissolves in water, it can also react quickly to other compounds, especially if they have an acidic pH. When chlorine dioxide reacts with water, it releases oxygen and also forms the chlorite ion (ClO_2-). The ion is an electrically charged molecule, similar to a battery. In this case, the chlorite ion carries a negative electric charge and is also highly reactive. The chlorite ion with a negative charge seeks a positive charge for compensation and stability. In our case, it is sodium, which becomes sodium chlorite. If we now dissolve this compound in water again, we get chlorite ions and sodium ions.

Chlorine dioxide, being highly reactive, is capable of eliminating pathogens in water through a process known as oxidation. In the US, an estimated 12 million people are exposed daily to both chlorine dioxide and the chlorite ion in their drinking water, without any detrimental effects so far. There is even a documented case of an accidental overdose in a Chinese village for a prolonged period, with no negative repercussions for the health of the villagers.

Another interesting aspect of chlorine dioxide is that it reacts to ultraviolet and solar light, turning into chlorine gas, and oxygen, which is why it must be kept away from both ultraviolet and solar light.

Brown colored glass pharmacy bottles are best; translucent and blue colored glass bottles let ultraviolet light through and can cause the chlorine dioxide to react.

If ingested, chlorine dioxide quickly reacts to acid pathogens, releasing oxygen and forming chlorite ions that later on turn into chloride ions, or common salt. Our body has no problem metabolizing this minimum amount of salt since all our fluids are saline. In fact, our body continually loses salt through sweat and urine.

What do we know?

We know that chlorine dioxide is the best disinfectant known to man since it can eliminate bacteria, fungus, viruses and small parasites within a wide pH range. It has been used without incident for over 80 years to disinfect drinking water.

It is a widely-used industrial disinfectant. Although also used for paper bleaching, the extremely high concentration levels for this purpose are very different from any ingestion dose. By the same measure, our stomach's hydrochloric acid concentration is very different from the 37% industrial acid, which, if it dropped on our skin, would immediately dissolve it. Chlorine dioxide doesn't destroy the structure it bleaches; it is not aggressive with the base substance, even at relatively high concentrations.

To a great extent, the positive results of CD come from its ability to strengthen our body's immune system through the oxidation of pathogens and through other more complex effects that I explain in the final chapter of this book. The ability to provide oxygen to cells is also crucial.

Among its possible 'negative' effects is the discomfort derived from the elimination process in the organism of the pathogen residue and other damaging agents that it destroys. We recommend starting with low doses and increasing them little by little, eliminating the waste progressively, without causing discomfort.

As a rule of thumb, the sicker the patient, the more significant the presence of toxic residue, so the slower we should increase the dosage, especially in the case of severe disease. In other words, **the dosage depends more on how sick the patient is than on their weight.**

Chemical reaction destroys the chlorine dioxide molecule (ClO_2). The released oxygen (O_2) joins either hydrogen (H) to form water (HO_2) or carbon (C) to form carbon dioxide (CO_2). The chlorine neutral ion bonds with sodium to become common salt (NaCl).