Jim Humble

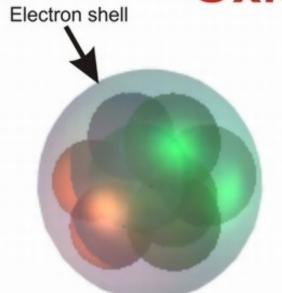
- MMS kills by Oxidation
- 2. Understanding oxidation
- (1) All matter is constructed of Atoms.
- (2) Atoms are combined in various ways to create molecules.
- (3) Everything you see is constructed of molecules including various disease causing pathogens.
- (4) To destroy a pathogen we must destroy some of its molecules.

Atoms are held together to make up molecules by electron shells. Atoms

All of the balls inside of this molecule are shown to represent atoms.

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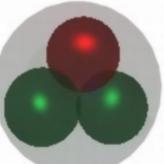
Oxidation



We can destroy this molecule by removing the electron shell. This is accomplished in nature or chemistry by drawing the electron shell off of the molecule. This is done with one of a series of chemicals known as oxidizers. Oxidizers destroy other compounds and in the process are themselves changed. The electrical charge of attraction of the oxidizer molecule is what draws the electron shells away.

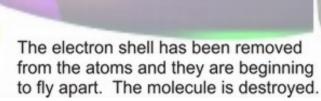
Oxidizing Chemical molecule





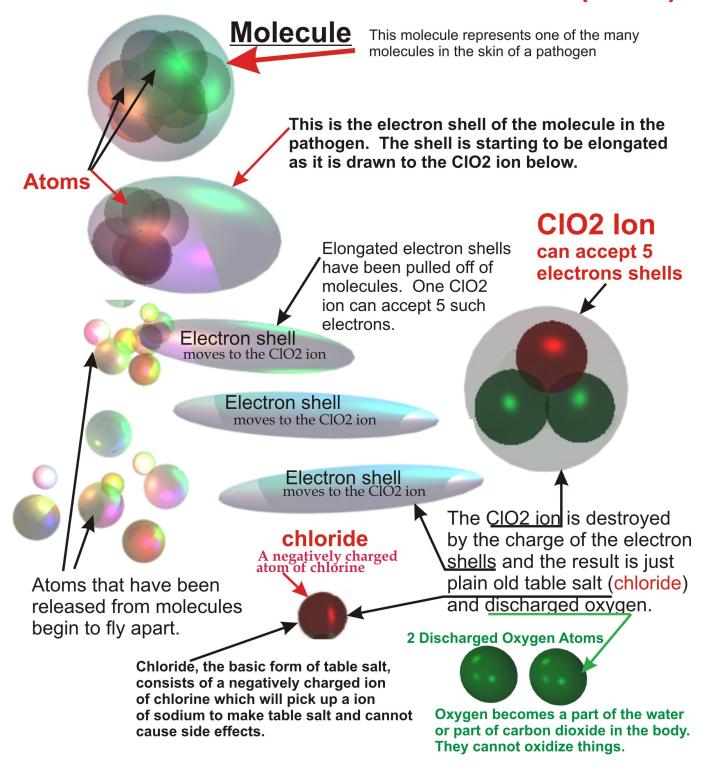
Electrical attraction elongates the electron shell as it is drawn away.

Oxidizing Chemical molecule



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Oxidation with Chlorine Dioxide (CIO2)



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Wait: That's not the whole story! Why is it that MMS destroys only pathogens and not body cells?

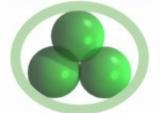
It's because of electrical charge. Scientifically stated, ORP, or Oxidation Reduction Potential. But let's not get too technical. Let's just worry about the Oxidation potential. Or even more simply stated, Oxidation strength.

Different oxidizing chemicals have different oxidizing strengths. For example ozone has an oxidation strength of 2.07 volts. Now that might not sound like much, but ozone is the strongest oxidizer know. Ozone can oxidize anything in the world that is oxidizable, including your body. You can see why ozone can not only kill pathogens, but it can do damage to your body as well. The Ozone representation shows 3 oxygen atoms slammed together using high energy. Ozone is short lived, but while it is active it is a powerful oxidizer. In the body it gets used up fast because it oxidizes everything in sight. That's why it cannot penetrate really deep into the tissues. It gets used up destroying tissues as well as pathogens that happen to be there. There are, however, some valuable uses in the body.

Everyone knows that oxygen is in the air we breath. All oxygen is found as oxygen molecules as shown on the right. We do not breath single oxygen atoms. Oxygen oxidizes hundreds of poisons that our bodies generate each day (Remember oxidation destroys compounds). If one does not get enough oxygen, the resulting poisons first destroy the brain. The oxidation strength of 1.30 volts is pretty much ideal. This strength cannot destroy tissues of the body except under exceptional conditions. But this oxidization strength can destroy all of the poisons generated by a healthy body, and many of the poisons generated by a sick body. We breath in oxygen and we breath out carbon dioxide. But carbon dioxide has the used up oxygen attached as dioxide. So you actually breath out nearly as much oxygen as you breath in. The reason why it is not totally as much is because oxygen also combines with some things in the body as well as tearing the poisons apart.

Chlorine dioxide (CIO2), oxidation strength .95 volts. Now we are beginning to see why CIO2 can kill pathogens and not harm the body. Tissues can with stand higher than 1.30 volts oxidization potential of oxygen. There is no reason why they cannot stand the 0.95 oxidation potential of CIO2. If oxygen doesn't do damage to the body, then CIO2 positively won't do damage. It's oxidation strength is way below oxygen. Pathogens are anaerobic microorganisms (they don't use oxygen), and basically they are the only non oxygen using organisms in the body. Since they don't use oxygen, they haven't developed a resistance to oxidation. CIO2 kills viruses in a different way. It prevents the formation of the special virus proteins (that are not used elsewhere), thus resulting in the destruction of the virus.

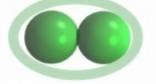
Ozone Molecule



There are 3 oxygen atoms in the shell.

Oxidation strength is 2.07 volts

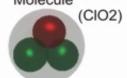
Oxygen Molecule



There are 2 oxygen atoms in the shell.

Oxidation strength is approximately 1.30 volts.

Chlorine dioxide Molecule



There are 2 oxygen atoms and one chlorine atom in the shell.

Oxidation strength is .95 volts.

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So let's take a look at what makes the chlorine dioxide molecule so valuable for killing disease in the human body. These are the important specifications.

- 1. Chlorine dioxide has an oxidization potential of 0.95 volts. Much lower than other oxidizers used in the body and thus cannot attack body cells. It is selective for pathogens.
- 2. Chlorine dioxide has been used for sterilization of hospital floors, slaughter houses, and thousands of other application for 100 years and no pathogen has ever developed a resistance.
- Chlorine dioxide is the most effective killer of pathogens known to man.
- 4. While chlorine dioxide is one of the weakest oxidizers it has the highest capacity of all the oxidizers for things it can oxidize. One molecule can accept 5 electrons which is 2.5 times more than ozone.

Chlorine
Oxygen Oxygen

Chlorine dioxide

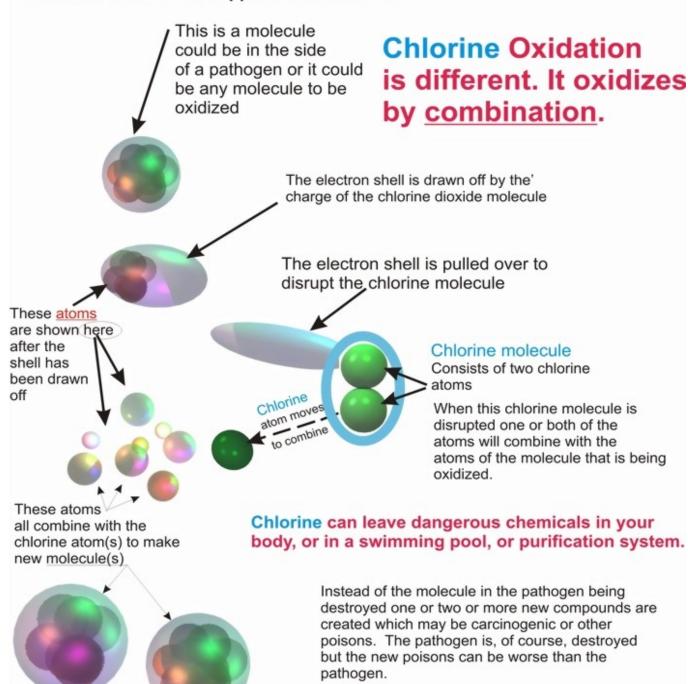
Oxidation Potential 0.95 Volts

- 5. Chlorine dioxide exists in the human body for only a few hours and then deteriorates into plain old table salt and neutral molecules of Oxygen. There is nothing left in the body to build up or cause side effects.
- Chlorine dioxide is extremely fast acting, and although some diseases take longer than others, malaria, the worst disease of mankind is totally handled in 4 hours.

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Chlorine

So why not use chlorine instead of chlorine dioxide? Because this is what happens with chlorine:



Molecule

Molecule