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Maneuvering through the challenges of the past few years has meant an exploration of issues, ideas, and technologies that would likely not have occurred otherwise. It seems that challenges are good motivators.

This series of e-resources consists of a gathering of 'tips & tricks' learned along the way. There will be revisions and additions to this series as new information and challenges present themselves.

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# Included in the 'Tips & Tricks' series ...

- Nebulized hydrogen peroxide
- Emergency and disaster-proofing gear: Canadian sources
- Owning a gun in Canada
- Chlorine Dioxide Solution (CDS)
- Survival tips urban v rural situations

<u>Chlorine dioxide solution</u> (CDS) is a well-known disinfectant that kills bacteria, viruses, and fungi. It is a powerful oxidizing agent commonly used as a water purifier in municipal water supplies throughout the world. It is made through mixing sodium chlorite with an acid (vinegar, citric acid, or hydrochloric acid).

- Early versions of this solution have been known as Miracle Mineral Solution (MMS, discovered years ago by Jim Humble), or Miracle Mineral Supplement. <u>The big question is</u> – is it a medicine, or is it a bleach? It is considered by many to be both.
- Its internal use, as a medicine, is very controversial. Medical authorities have warned of its dangers and toxicity while some alternative health practitioners have hailed its healing properties when used carefully in very low dosages.

#### As a water disinfectant

Chlorine dioxide is a well-known and popular treatment for disinfecting drinking water for human consumption as well as for treating water in commercial, industrial, recreational and municipal water applications. It is regularly described as the preferred choice for disinfection purposes, and effective for emergency disinfection of drinking water.

It is an effective and essential oxidant, biocide, and disinfectant at relatively low concentrations. It kills bacteria, viruses, and harmful microbes in water by destroying their cell walls. It is considered safer than chlorine because it is effective at a much lower concentration and is minimally corrosive.

Chlorine dioxide is considered environmentally hazardous but is known to dissipate quickly after application – lasting only minutes in the air, and hours in water or soil.

75 Years of Safe and Effective Potable Water Treatment: Chlorine Dioxide. International Dioxide.

Ask the expert: 17 FAQs on chlorine dioxide water treatment. Xylem + Evoqua.

**Chlorine Dioxide Safe Use and Benefits in Water Treatment. Sensorex.** 

<u>A systematic review on chlorine dioxide as a disinfectant</u>. Uma Haida Mohamed Jefri, et al. Journal of Medicine and Life. March 2022.

**Chlorine dioxide.** ScienceDirect.

What is chlorine dioxide solution. Andreas Kalcker.

<u>Emergency disinfection of Drinking Water</u>. United States. Environmental Protection Agency (EPA).

<u>10 Reasons Why You Should Be Using Chlorine Dioxide</u>. Food Safety Magazine. February 1, 2005.

## As a human health support

<u>Disclaimer</u>: It would be <u>unwise</u> to use a chlorine dioxide solution <u>internally for</u> <u>medicinal purposes</u> without first conducting your own research. Before using it, investigate and understand its potential benefits and risks.

Chlorine Dioxide: Uses, Side Effects, and More. WebMD.

<u>The Chlorine Dioxide Controversy</u>. Stephanie Seneff. PhD. The Weston A Price Foundation. January 22, 2021.

My Experience with MMS (Chlorine Dioxide): Is It A Cure-All? Empowered Sustenance. February 7, 2023.

**The Amazing Health Benefits Of Chlorine Dioxide Therapy**. The Cognitive Man. October 20, 2021.

Interview with Maria Jose Frias: The benefits of chlorine dioxide in the context of COVID-19. Pia Figueroa. DownToEarth. August 11, 2020.

<u>Efficacy and Safety Evaluation of a Chlorine Dioxide Solution</u>. Jui-Wen Ma, et al. International Journal of Environmental Research and Public Health. March 2017.

<u>Video: The Universal Antidote – The Science and Story of Chlorine</u> <u>Dioxide</u>. YouTube. January 31, 2021.

**<u>Clinical evidence</u>**. Andreas Kalcker website.

<u>Biophysicist Andreas Kalcker: Chlorine Dioxide is a 100% effective cure for Covid.</u> Unshackledminds.com. December 7, 2021.

<u>Chlorine Dioxide – Miracle Mineral Solution (MMS</u>). Jennifer Shipp. AliveNHealthy. May 26, 2019.

## Mixing & using a CDS solution

The <u>updated website of Andreas Kalcker</u> is, in my opinion, the 'go to' source of information on all things 'chlorine dioxide solution'. See, in particular, <u>his video</u> presentation on making the CDS solution.

For a slightly adapted method of making the CDS solution, see also <u>How to Make Chlorine Dioxide Solution</u>. (New Earth Healing).

<u>Note</u>: at the time of preparing this e-resource, my method used for making chlorine dioxide solution was the 'Kalcker' method - combining the two ingredients listed immediately below (purchased from Amazon). A YouTube search will show a number of different methods of mixing and storage.

<u>Biotraxx Classic Water Purification 1:1 set</u>. Amazon Canada. <u>WPS Chlorine Dioxide Kit</u>. Amazon Canada.

On the <u>Andreas Kalcker website</u>, you will see a full range of resources on various usage protocols, Covid-19 protocols, videos, frequently asked questions, mechanism of action etc.