

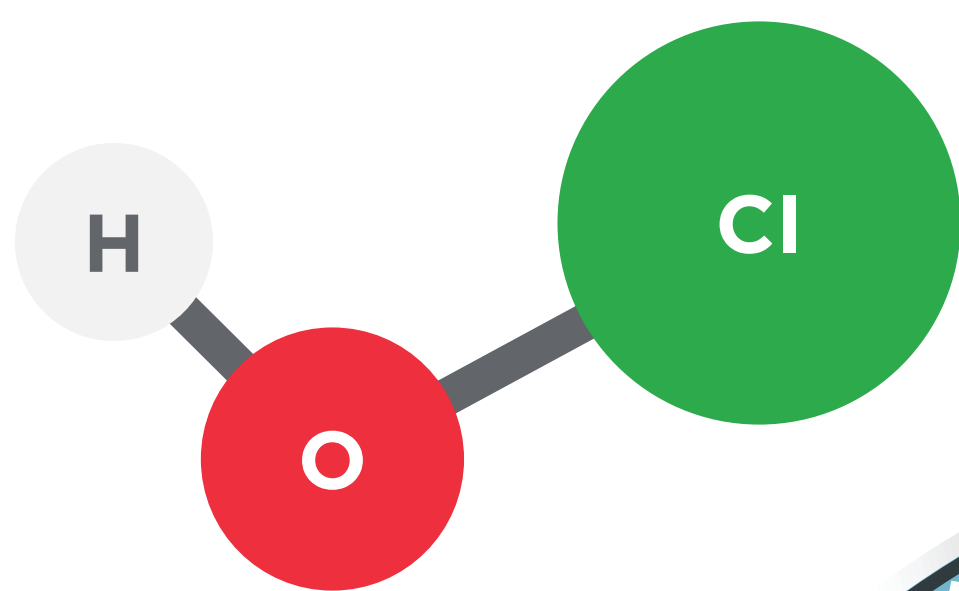
How Hypochlorous Acid Kills Bacteria, Viruses, & Pathogens



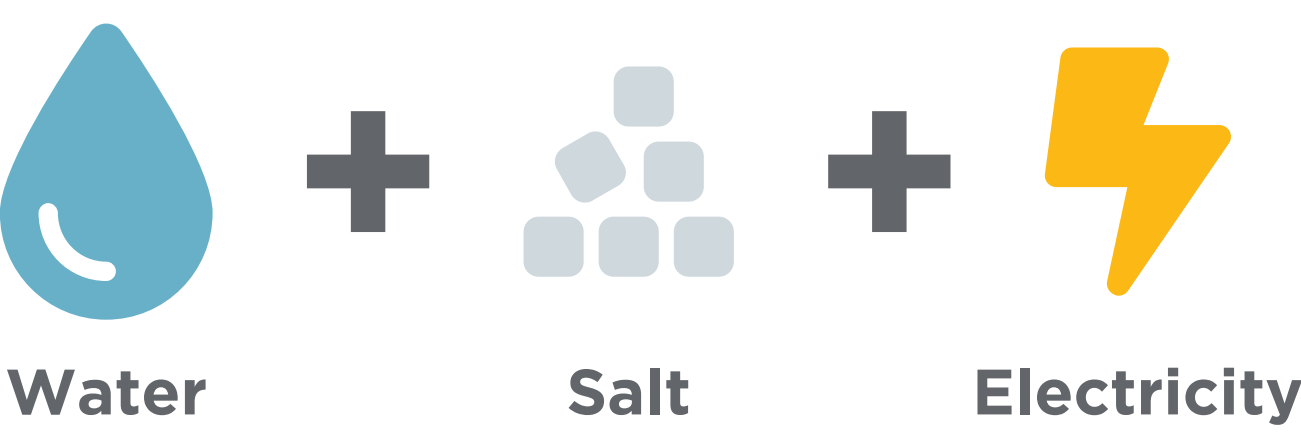
Hypochlorous acid (HOCl) is a naturally occurring solution that our bodies generate when an invading pathogen is detected. White blood cells swarm to the area, and upon contact, release a burst of bactericidal chemicals, including their most powerful oxidizing agent, HOCl.

HOCl:

- Hydrogen
- Oxygen
- Chloride



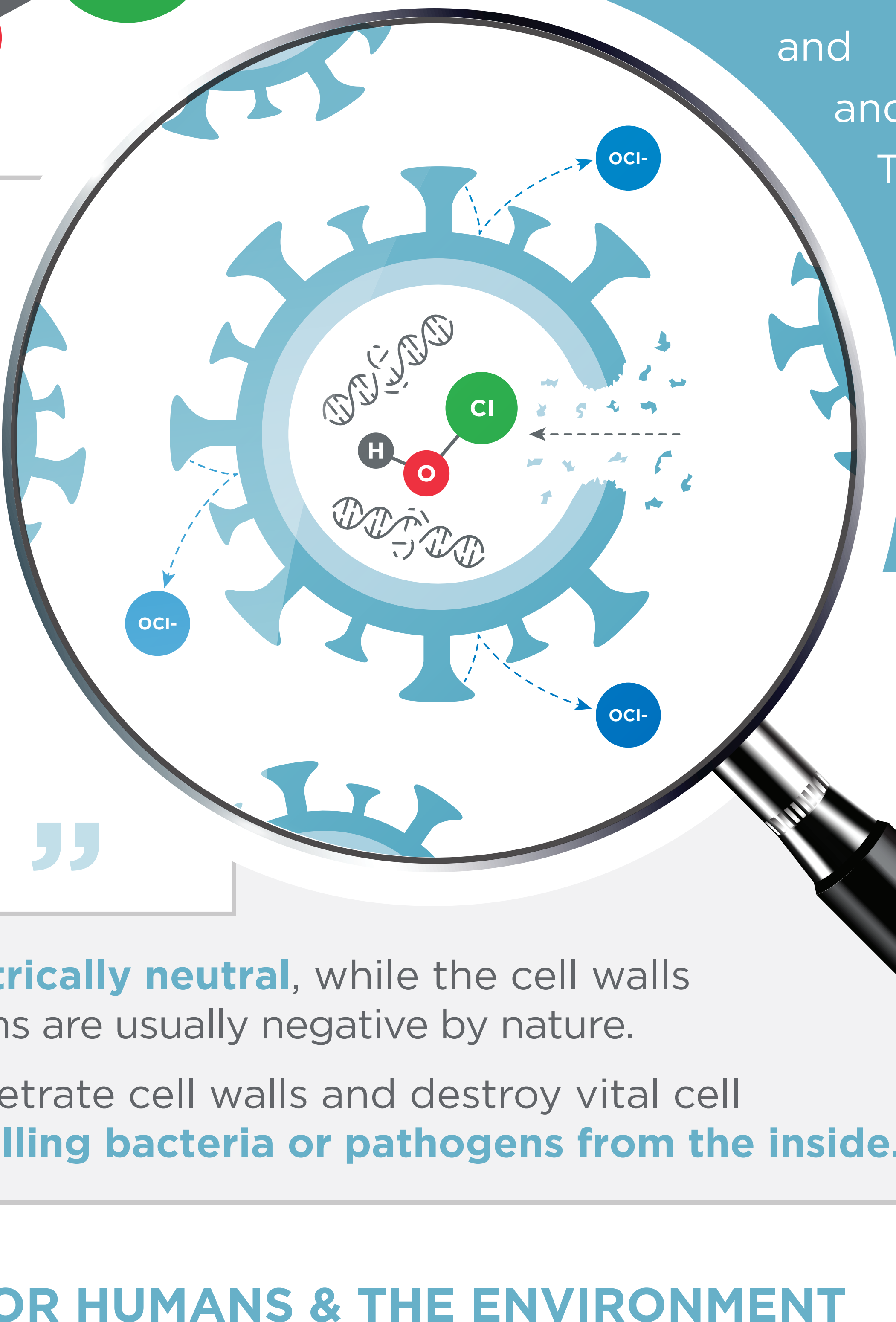
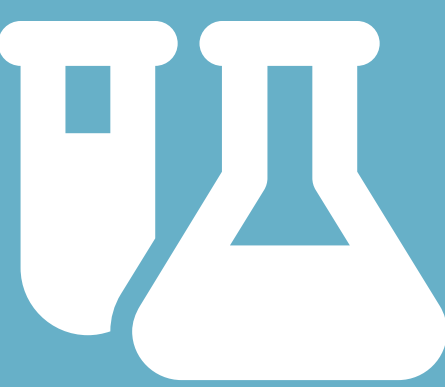
HOW IT'S MADE:



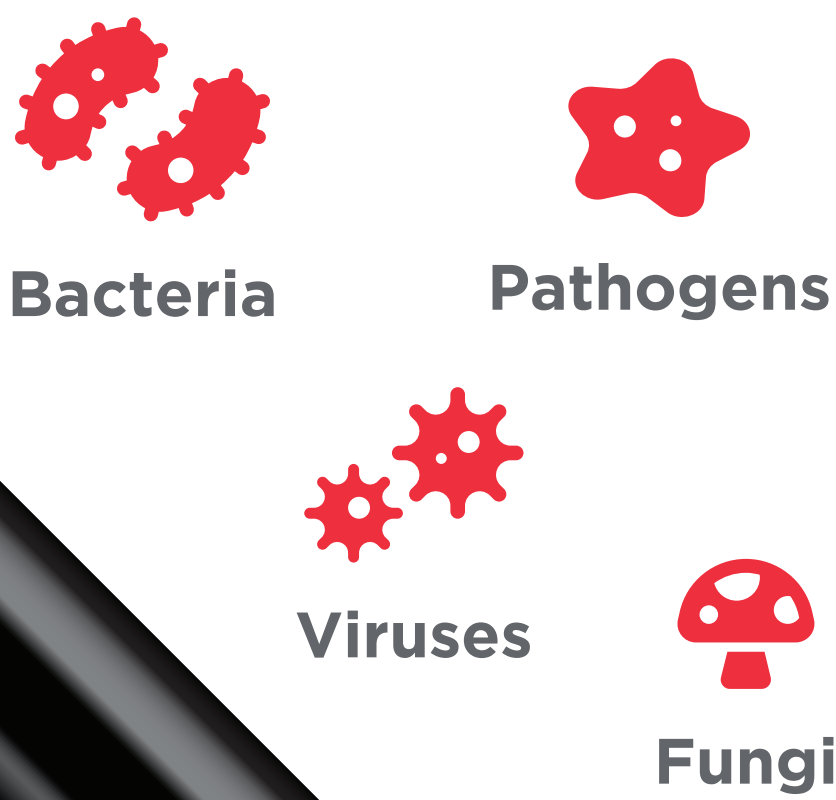
“ **HOCl:** a relatively inexpensive, nontoxic, noncorrosive, and well-studied compound. ”

The HOCl molecule is **electrically neutral**, while the cell walls of pathogen microorganisms are usually negative by nature. This makes it easier to penetrate cell walls and destroy vital cell components, **effectively killing bacteria or pathogens from the inside.**

In **1834**, French chemist Antoine Jerome Balard discovered HOCl as an effective and safe wound cleaner and surface disinfectant. Today, it's made from a process known as electrochemical activation using just **water, salt** and **electricity**.



HOCl Generally Kills 99.99% of known



SAFE FOR HUMANS & THE ENVIRONMENT

The nature of HOCl's chemical makeup and neutral charge — unlike sodium hypochlorite and other disinfectants — means that pathogens cannot build up bacterial resistance and become superbugs. According to the CDC, **superbugs kill someone in the U.S. every 15 minutes.**

Hypochlorous acid is the safe, non-toxic and effective alternative for facility disinfection and sanitization.



Sources:

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7837568/>
- <https://www.nature.com/articles/sj.bdj.2018.302>
- <https://www.hfmmagazine.com/articles/4458-exploring-the-use-of-hypochlorous-acid-for-disinfection>
- https://cdn.who.int/media/docs/default-source/essential-medicines/2021-eml-expert-committee/applications-for-addition-of-new-medicines/a.18_hypochlorous-acid.pdf?sfvrsn=35222172_4
- <https://www.cnn.com/2019/11/13/health/superbug-amr-drug-resistant-cdc-2019-report/index.html>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7315945/>