



**KILLS PATHOGENS**

# HOSPITAL GRADE DISINFECTANT

Hydro-E® is the leader in a new class of disinfectant and the most advanced around the world.

Hydro-E® is safe for humans and the environment because it contains no alcohol and is completely natural and non-toxic. HOCl begins killing bacteria and viruses within seconds of contact and successfully eliminates COVID-19 in 30 seconds, supporting aged care workers with standard infection control procedures.

- ✓ Excellent for aerosol or surface application.
- ✓ 100% Natural & Non-Toxic
- ✓ Safe for Adults & Children

**EFFECTIVELY KILLS 99.99% OF BACTERIA\*.  
KILLS COVID-19 IN 30 SECONDS.**

100% NATURAL - ZERO ALCOHOL - NON TOXIC

## IDEAL FOR

- > Beauty & Skin Clinics
- > Medical & Dental Surgeries
- > Podiatry & Physiotherapy Clinics
- > Hospitals & Clinics
- > Gyms & Fitness Centres
- > Veterinary Practices

## DISINFECTANTS



HYDRO-E 5L

MHE05L



HYDRO-E 500ML

MHE500F



500ML CONTINUOUS SPRAY APPLICATOR

MHE500CP



500ML MULTI-MODE SPRAY APPLICATOR

MHE500E



380ML K5 NANO SPRAY GUN

MHEK5



Made in Australia   
Hydro-E ARTG: 335971

Hydro-E 5L - MHE05L  
Hydro-E 500ml - MHE500F  
500ML Continuous Spray Applicator - MHE500CP  
500ML Multi-Mode Spray Applicator - MHE500E  
380ML K5 Rechargeable Nano Spray Gun - MHEK5

\*Tested against P. aeruginosa, E coli, S aureus, Salmonella, SARSCoV-2 (Covid-19)



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HOSPITAL GRADE

**SURFACE SPRAY**

DISINFECTANT

# A REVIEW OF HYPOCHLOROUS ACID

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Hypochlorous Acid: A Review

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## Abstract

The surgeon needs to have an inexpensive, available, nontoxic, and practical disinfectant that is effective in sanitizing against the COVID-19 (Coronavirus Disease 2019) virus. The purpose of this article was to review the evidence for using hypochlorous acid in the office setting on a daily basis. The method used to assemble recommendations was a review of the literature including evidence for this solution when used in different locations and industries other than the oral-maxillofacial clinic facility. The results indicate that this material can be used with a high predictability for disinfecting against the COVID-19 (Coronavirus Disease 2019) virus.

## Recommendations for Office Use – Dental Practice

### Importance of Aerosol Size to Disinfection & Application

Individuals working in the dental and medical field using surgical and high-speed handpieces are at risk from aerosolization. Aerosols are defined as particles less than 50 µm in diameter. Particles of this size are small enough to stay airborne for an extended period before they settle on environmental surfaces or enter the respiratory tract.<sup>41,</sup>

<sup>42</sup> Additionally, a true aerosol or droplet nuclei may be present in the air of the operatory for up to 30 minutes after a procedure.<sup>41</sup>

**Particles are classified based on size:** Coarse particles measure 2.5 to 10 µm; fine particles, 0.1 µm to less than 2.5 µm; and ultrafine particles, less than 0.1 µm. The nose typically filters air particles larger than 10 µm. If a particle is smaller than 10 µm, it can enter the respiratory system. If smaller than 2.5 µm, it can enter the alveoli. A particle smaller than 0.1 µm, or an ultrafine particle, such as the COVID-19 virus, can enter the bloodstream or target the lungs.

Sotiriou et al<sup>42</sup> showed that the concentrations of small particles (<0.5 µm) generated during dental drilling procedures were much higher than the concentrations of larger particles (>1 µm). Ultrasonic and sonic transmission during nonsurgical procedures had the highest incidence of particle transmission, followed by air polishing, air-water syringe, and high-speed handpiece aerosolization.<sup>43</sup> One study found that ultrasonic instrumentation can transmit 100,000 microbes/ft<sup>3</sup> with aerosolization of up to 6 ft and, if improper air current is present, microbes can last anywhere from 35 minutes to 17 hours.<sup>44</sup>

**Dental Practice:** A study looked at disinfecting outpatient surgical centers using HOCl.<sup>55</sup> After cleaning, the rooms in the HOCl cleaning and disinfection study arm had significantly lower bacterial counts than the rooms that underwent standard cleaning and disinfection.

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Learning Centre: Shieldme - Hospital Grade Disinfectant.

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