



IVF success rate in mind

EXPOSURE TO TOXIC DISINFECTANT CAN IMPACT IVF SUCCESS RATE



The risk of exposure to toxic residuals can impact oocyte retrieval, embryo transfer and other IVF applications during pelvis ultrasound probe procedures.¹⁻⁹

In a study conducted at FDA's Office of Science and Technology, it measured the integrity on cellular membrane, metabolic activity or cell growth and found that there was several-hundredfold difference in the relative toxicity of various disinfecting substances. The liquid disinfecting agents were classified into three main groups according to their relative toxicity²:

Mild (TC(50) > 1 mM, including phenol, hydrogen peroxide (30% w/v), and formaldehyde (37% w/v))

Moderate (1mM > TC(50) > 0.1 mM, Sodium hypochlorite (4% w/v))

Severe (TC(50) < 0.1 mM, glutaraldehyde (50% w/v), cupric ascorbate, and peracetic acid (32% w/v)) toxicity.

The hydrogen peroxide (80ml; 35% w/w) is a **higher concentration to the chemical tested in the study.**

A recent sonographer user study,⁵ found the following concerns with high concentrated hydrogen peroxide:

At least 1-in-3 sonographers are concerned about the risk of exposure to hazardous chemicals, and other potential risks associated with hydrogen peroxide exposure.

47% of sonographers have personally experienced an adverse event from using the highly concentrated hydrogen peroxide system most commonly skin burns.

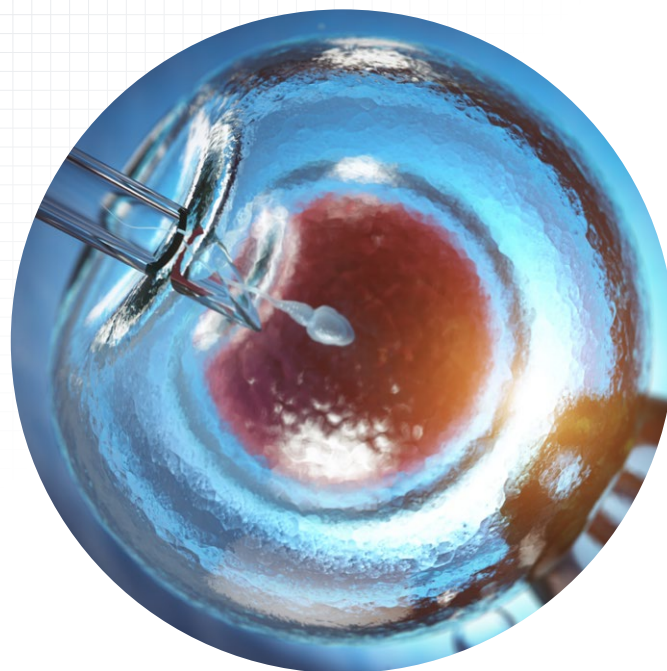
Probes are difficult to dry completely the highly concentrated hydrogen peroxide residuals, left on the probe after disinfection e.g. in needle guide grooves lead to chemical burns.

Don't risk your IVF success rate!

Remove chemical toxicity in selecting Chronos UV-C High Level Disinfection for pelvic ultrasound examinations that is chemical-free and ultrafast, thus improving quality patient care.

While it is clear that UV-C HLD technology has many favourable characteristics for disinfection in IVF applications, it also removes other issues caused by chemicals:⁶⁻¹⁰

- **Respiratory problems**
- **Anaphylaxis**
- **Skin reactivity, irritation**
- **Dermatitis**
- **Systemic antibody production**
- **Chemical burns to staff and patients**
- **All chemicals require a rinsing step, to remove disinfectant residue toxicity from the probe a crucial step that could be forgotten**



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