

## Chemical Disinfection Level Chart

Surfaces	Sanitize	Aseptic	Low Level Disinfection: LLD	Intermediate Level Disinfection: ILD	High Level Disinfection: HLD	Sterilize
Intact Skin	Washing hands min 20 seconds	Pre-surgery Cleaning wounds				
Non-intact skin			Disinfection of minor cuts/ scrapes, burns	Disinfection of minor cuts/ scrapes, burns		
Environmental Non-critical* surfaces			Floors, counters bathrooms, phones, doors, etc	Floors, counters bathrooms, phones, doors, etc		
Non-critical reusable medical devices			Blood pressure cuffs, pulse oximeter	Blood pressure cuffs, pulse oximeter		
Semi-critical reusable Medical Devices					Cupping & Gua Sha/Graston/ Scraping tools Endoscopes Dentist tools	Cupping & Gua Sha/Graston/ Scraping tools Endoscopes Dentist tools
Critical Reusable Medical Devices						Scalpels & surgical tools

- \* Critical medical devices need to be sterilized, such as a scalpel. Critical devices are those with a known risk of coming in contact with blood/interior of human body. All surgical tools must be sterilized to minimize risk of infection.
- \* Semi-Critical Reusable Medical Devices MIGHT come in contact with microscopic blood. These devices must be High Level Disinfected to prevent transmission of blood born pathogens, such as MRSA and Hepatitis C. When these devices come in contact with visible blood they must be sterilized (instead of HLD).
- \* Non-Critical medical devices do NOT come in contact the blood and have little risk of doing so, such as blood pressure cuff.

If you are caring for a person KNOWN to be infected then you should choose ILD over LLD to disinfect household surfaces. If you are high risk or want to take extra precaution you can OPT to use ILD over LLD. LLD is adequate disinfection for most household surfaces.

## Chemical Disinfection Level Chart

<i>Activity/ Disinfection Level</i>	<i>LOW Level Disinfection</i>	<i>LOW to INTERMEDIATE Level Disinfection</i>	<i>LOW to INTERMEDIATE Level Disinfection</i>	<i>INTERMEDIATE Level Disinfection</i>	<i>INTERMEDIATE Level Disinfection</i>	<i>INTERMEDIATE Level Disinfection</i>	<i>INTERMEDIATE to HIGH Level Disinfection</i>	<i>INTERMEDIATE to HIGH Level Disinfection</i>
<b>Chemical Disinfection Classes</b>	Quaternary ammonium compounds (QUATS)	Iodophor	Phenolic compounds	Alcohols	Chlorine Compounds	Botanical, plant based thymol	Aldehydes	Intermediate @ 3% High @ 6-7.5%
<b>Aqueous Concentration</b>		0.1-0.2%	0.5-3%	<b>70%</b>	10% (500 to 5000 mg/L)		variable	<b>3%-7.5%</b>
<b>Use on:</b>	Skin & Environmental Surfaces	Skin	Environmental surfaces	Skin & Non-critical patient care devices	Environmental surfaces	Environmental surfaces	Semi-critical reusable devices	Skin @ 3% 7.5-6% @ Semi-critical devices
<b>Examples</b>	<p><b>Zepharin®</b> disinfects minor cuts, scrapes, burns</p> <p><b>Disicide®</b> Disinfection Spray</p> <p>QUATs are well know respiratory irritants which can cause asthma, disrupt hormones and are toxic to fish. Please avoid these products.</p>	<p><b>Betadyne®</b> disinfects minor cuts, scrapes, burns</p> <p><b>Providon®</b> anti-septic before or after surgery</p>	<p><b>Pine-Sol &amp; Lysol®</b> are home cleaning products and suitable for surfaces: counters, door handles, etc.</p>	<p><b>70% isopropyl alcohol</b></p> <p>Note that anything less than 70% solution is NOT Intermediate Level.</p> <p>Soaking devices for 30 minutes is ILD</p> <p>Not highly recommended for medical instrument disinfection due to flammable nature of alcohol and high evaporation rate.</p> <p>HAND sanitizer needs to be 60% ethanol OR 70% isopropanol. Using hand sanitizer is only Sanitation level due to short Dwell time.</p>	<p><b>Bleach</b> <b>Clorox®</b> <b>ChloramineT</b> <b>Purex</b></p> <p>Note that bleach is not recommended as ILD, only as general household disinfectant.</p> <p>By-products of chlorine are harmful to humans and the environment and as such should be avoided/used with discrimination</p>	<p><b>Benefect:</b> suitable on environmental surfaces.</p> <p><b>RMR Botanical</b> Suitable on environmental surfaces.</p> <p><b>Dwell time = 10 minute ILD</b></p> <p><b>Not harmful to you or they environment. Do use gloves when handling and avoid skin contact. May cause a burning sensation with direct skin contact. Remove with soap and water.</b></p>	<p>Formaldehyde is slow-acting and suspected carcinogen. Its a gas that irritates eyes and mucous membranes.</p> <p>Glutaraldehyde takes several hours to disinfect: toxic and an irritant to eyes and mucous membranes. Contact should be avoided.</p>	<p><b>3% Hydrogen peroxide:</b> mild anti-septic on scrapes, cuts, burns.</p> <p><b>7.5% Sporox II®</b></p> <p><b>Formulated for semi-critical medical devices.</b></p> <p><b>Dwell time = 30 min for HLD Dwell time to sterilize 6 hours.</b></p>