

DISINFECTION RECOMMENDATIONS CHART

Level of Disinfection	When to Use	Disinfectant Active Ingredients	Contact Times (Approximately)	Advantages	Disadvantages
<p>HIGH-LEVEL</p> <p>Kills all bacteria, fungi and viruses except for bacterial spores.</p>	<p>Use on semi-critical items.</p> <p>Items that comes in contact with nonintact skin or mucous membranes but do not penetrate them.</p>	1:10 Chlorine Bleach solution (1 part bleach and 9 parts water) 5,000 ppm	Minimum 10 minutes	Inexpensive, fast acting.	Corrodes metal, may destroy adhesives with prolonged soaking. Irritant to skin and mucous membranes.
		2% Gluteraldehyde Not recommended for Personal Service Settings	Minimum 20 minutes at 20°C	Non-corrosive to metal, rubber or plastics.	Toxic fumes, expensive. Extremely irritating to skin and mucous membranes.
		6% Hydrogen Peroxide	Minimum 30 minutes	Environmentally friendly, inexpensive, fast acting.	Oxidizing properties may be destructive to some equipment. For example, brass, zinc, copper and aluminium.
		7% Accelerated Hydrogen Peroxide	Minimum 20 minutes at 20°C	Environmentally friendly, non-toxic.	Oxidizing properties may be destructive to some equipment. For example, brass, zinc, copper and aluminium.
		0.55% Orthophthalaldehyde (OPA)	Minimum of 10 minutes at 20°C	Fast acting, no mixing required.	Stains proteins, expensive.
<p>INTERMEDIATE LEVEL</p> <p>Kills most bacteria, fungi, viruses and mycobacteria. (tuberculocidal)</p>	<p>Use on semi-critical items.</p> <p>Items that comes in contact with nonintact skin or mucous membranes but do not penetrate them.</p>	70 - 90% Isopropyl Alcohol	Minimum of 10 minutes	Fast acting, non-toxic, no residue.	Can damage rubber and plastics.
		70 - 90% Ethyl Alcohol	Minimum of 10 minutes	Fast acting, non-toxic, no residue.	Can damage rubber and plastics.
		1:100 Chlorine Bleach solution (1 part bleach and 99 parts water)	Minimum 10 minutes	Inexpensive, fast acting.	Corrodes metal, may destroy adhesives with prolonged soaking. Irritant to skin and mucous membranes.
<p>LOW-LEVEL</p> <p>Kills most bacteria and some fungi and viruses.</p> <p>Does not kill mycobacteria or bacterial spores.</p>	<p>Use on non-critical items.</p> <p>Items that touches only intact skin and not mucous membranes, or does not directly touch the client.</p> <p>These items do not contact blood or bodily fluids.</p> <p>May be used for routine housekeeping.</p>	Quaternary Ammonium (QUATs)	Follow manufacturer's instructions	Good cleaning agent for environmental surfaces, non-corrosive, non-toxic.	
		1:500 Chlorine Bleach solution (1 part bleach and 499 parts water)	Minimum 1 - 2 minutes	Inexpensive, fast acting.	Corrodes metal, may destroy adhesives with prolonged soaking. Irritant to skin and mucous membranes.
		3% Hydrogen Peroxide	Minimum 10 minutes	Environmentally friendly, inexpensive.	Oxidizing properties may be destructive to some equipment. For example, brass, zinc, copper and aluminium.
		Phenols	Follow manufacturer's instructions	Easy to obtain, cleans and disinfects.	Residual phenols on porous materials may cause tissue irritation. For environmental surfaces only.

Adapted from *Infection Prevention and Control Practices for Personal Services: Tattooing, Ear/Body piercing and Electrolysis*. Health Canada, July 1999. This chart is not intended to be inclusive of all high, intermediate and low-level disinfectants.