



Understanding Infection Control

By Jeannie Boniface

What's the difference between cleaning and disinfection, and between disinfection and sterilization?

Before I got into the infection control industry back in 1991, these terms all melted into one big question mark. I thought that you "sterilized" your hands when you used an antimicrobial soap. I thought that disinfecting a countertop meant that you just sprayed on a disinfectant and wiped it off – done!

This is the first in a series of four articles on infection control for the pedicure and medical spa industries. In this issue and the next three, I'll cover definitions of some basic terms: cleaning, sanitation, disinfection and sterilization. I'll outline steps for salons to take after each client, each day and each week, to better protect their clients and to be in compliance with health board standards. Foot spa tubs and biofilm will be covered in a separate article. And finally, we'll look at how your clientele has changed over the last 10 years and why following proper infection control procedures is vital to the safety of your clients and your business.

In this first article, I'd like to help you realize the importance of cleaning and understand the different levels of disinfection and sterilization.

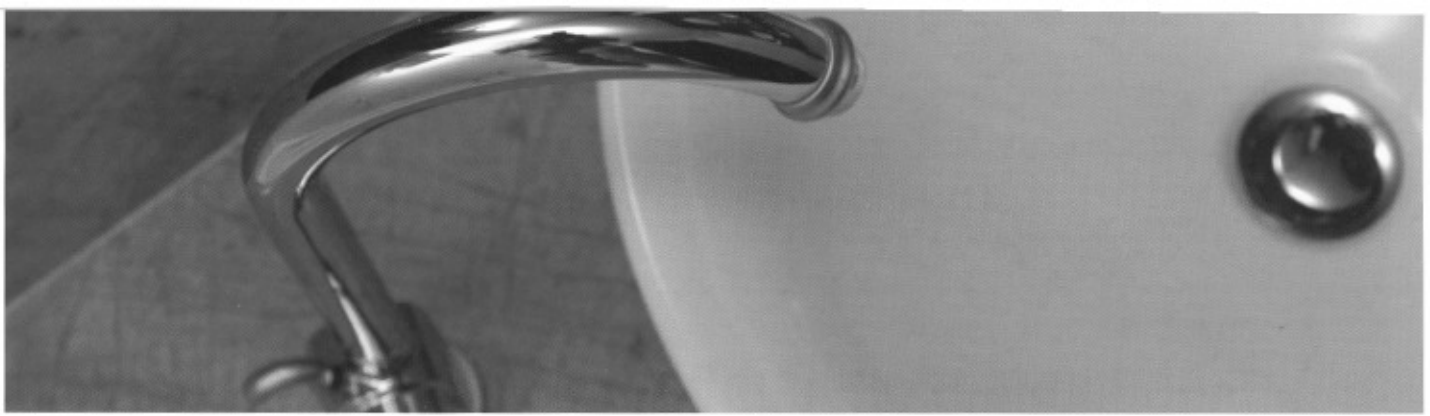
The meaning of clean

Cleaning and disinfecting is a two-step process. Proper disinfection of any instrument or surface requires a cleaning step. Cleaning is the physical removal of organic matter, and organic matter is dirt, blood, skin, saliva, any body fluids and physical debris.

Cleaning is done with a "surfactant" – a soap that physically lifts debris or organic matter off the surface so that it can be easily wiped away. It's important to clean first because most disinfectants cannot kill microbes if there is organic matter present. On most disinfectant labels you'll find a version of the following statement: "On a pre-cleaned surface, spray, wait X minutes, wipe, spray again and leave to dry." Check your product labels and you'll find this to be true with over 99 percent of disinfectants on the market – even the ones you use at home.

Read your labels

If you purchased a box of hair highlighter, put it on your hair, then immediately washed it out, what would happen to your hair? Absolutely nothing! Your colour would remain the same. Why? Because you didn't take the time to read the directions and allow proper contact time for the hair lightener. The same is true for your disinfectants. You need to read the label and find out how long to leave them on your surface.



Disinfectants have a contact time ranging from one minute to as long as 45 minutes. Without proper contact time, killing of microbes is impossible. Companies spend tens, sometimes hundreds, of thousands of dollars testing their products against a variety of bacteria, viruses and fungi. They formulate their products to give you maximum kill in the shortest amount of time. Your products work well only if the directions on the label are followed.

Correct disinfecting

“Sanitizer” means cleaner, not disinfectant. A disinfectant must have a drug identification number (DIN) if it is sold in Canada. This is an eight-digit number, beginning with the letters DIN, found on the label, and it’s a registration given by Health Canada. Our government looks at the label claims of the product, along with test documentation from the manufacturer, and verifies that the label claims are true.

Instruments

Instruments are classified into different categories according to the Spaulding Classification system. The categories dictate whether the instrument needs to be disinfected or sterilized, according to the risk that item has of coming in contact with body fluids. What follows is a breakdown of the categories and examples of some instruments that fall into each category.

Critical items are instruments or tools that come in contact with mucous membranes and can potentially penetrate skin. Examples of some of these tools for nails are cuticle pushers and corn and callus slicers. All critical items, which include all foot care instruments, must be sterilized! You can sterilize with an autoclave or with a registered chemosterilant such as 2% glutaraldehyde or accelerated hydrogen peroxide (AHP)7%. The label will say “chemosterilant” if the product can sterilize.

Semi-critical items do not penetrate skin but may inadvertently break the skin. Examples of these nail tools are nail cutters, sanding bits and scissors. Semi-critical tools require what the Spaulding system calls “high-level

disinfection.” You can use a chemical solution such as glutaraldehyde or AHP 7% to achieve high-level disinfection. Make sure these tools are of good quality, surgical stainless steel. Cheaper metals may corrode in a high-level disinfectant.

Non-critical items are instruments or tools that come in contact with skin but have no chance of penetrating the skin. Examples are workstations, chairs, beds and magnifying lamps. Non-critical items require low-level disinfection. You can use a DIN registered surface disinfectant to achieve low-level disinfection.

Single service / single use items must be disposed of after use. These items should never be used twice on one client or on any other client. You may not “save” a single-use item for the same client for her next appointment. Either give it to your client, or dispose of it. Don’t let your client bring it back for her next appointment.

Key points to remember:

1. Disinfection is a two-step process – clean first, then disinfect.
2. Your disinfectant should be a registered product with a DIN – drug identification number.
3. Follow label directions precisely – no short cuts!
4. Know the risk of contamination of the instruments that you are using: critical, semi-critical, non-critical.
5. Finally, all foot care instruments should be sterilized.
(More explanation of why will be detailed in future articles.)

Jeannie Boniface has worked in the infection control & dental pharmaceutical industry since 1991. She now works as a consultant to the dental, medical and beauty industries, teaching about responsible choices for proper infection control while following government guidelines. Jeannie teaches the Level II Infection Control Course for the North American School of Podology (NASP) and is the manager for the Infection Control division of KLTD International Inc.