

MediNail.com Autoclave Alert

MediNail gets requests for what is a proper autoclave for salon use almost weekly. Historically, I refer to the MediNail-ANT course for the full training information, but because of COVID, more consumers than ever are getting smarter about poor liquid disinfection options vs Sterilization when they consider nail salon services. Many salons are responding to the surge in demand for autoclaves rather than the inefficient state requirements (i.e., weak blue liquid disinfectants) and salons are now asking for help in choosing a proper autoclave. Two choices exist, **Autoclaves that use steam under pressure & Dry Heat Autoclaves**. The Department of Public Health in Boston, Ma now requires all 214 salons to have

The problem with Dry Heat only autoclaves is these units take much longer to work (anywhere from one to two hours to complete a cycle at high heat) and too many units are over a hundred degrees too weak to kill all bacteria. The other reason that these **weak** dry heat autoclaves are more attractive than steam under pressure units are they are cheap. Some being advertised as cheap as \$49 dollars that do not come anywhere near meeting the CDC guidelines for Dry Heat Autoclaves. The following autoclave specifications are recommended by Medinail.com. **Both types need to be spore tested periodically.**

Dry-Heat Sterilizers

The advantages for dry heat include the following: it is *1. Nontoxic, does not harm the environment; 2. Dry heat cabinet is easy to install and 3. Relatively low operating costs; 4. Penetrates materials; and 5. Noncorrosive for metal and sharp instruments.*

The disadvantages for dry heat are the *1. Slow rate of heat penetration and microbial killing makes this a time-consuming method. 2. In addition, the high temperatures are not suitable for most materials.*

IMPORTANT The **most common time-temperature relationships for sterilization with hot air sterilizers are 170°C (340°F) for 60 minutes, 160°C (320°F) for 120 minutes, and 150°C (300°F) for 150 minutes.** They should be FDA certified but cheaper ones are not

There are **two types of dry-heat sterilizers:**

- 1. Static-air type (standard oven) slow, uneven heating, longer, less uniform heat**
- 2. forced-air type i.e., convection oven (faster, penetrates better rapid heat transfer)**

Steam Sterilization

Of all the methods available for sterilization, moist heat in the form of saturated steam under pressure is the most widely used and the most dependable. There are two types **1. gravity displacement and 2. Pre-vacuum**. Steam autoclaves should be FDA certified. Steam sterilization is 1. nontoxic, 2. inexpensive, 3. rapidly microbicidal, sporicidal, and 4. rapidly heats and 5. penetrates fabrics. Like all sterilization processes, steam sterilization has some deleterious effects on some materials, including corrosion.

The basic principle of steam sterilization A. steam, B. pressure, C. temperature, and 4. time. ***Recognized minimum exposure periods for sterilization of wrapped instruments are 30 minutes at 121°C (250°F) in a gravity displacement sterilizer.** Almost all small tabletop steam autoclaves found in medical/dental offices are gravity displacement units while more expensive pre-vacuum pump units are in hospitals & larger medical facilities.

MediNail Recommended autoclaves must meet CDC and FDA criteria.

Steam Autoclaves Price \$700- \$2500



Prestige



Tuttnauer



Midmark M7



Saniclave

Dry Heat AutoClaves (forced air ie Convection best & faster) Strident/Wayne or similar unit \$600 - \$900



Not acceptable below

Cheap Dry Heat, UV, Liquids or Bead Sterilizers **Do not reach high temperatures or have uneven heating**

Examples below will not pass CDC or FDA spore testing recommendations including Quats.

