

## INSTRUMENT STERILIZATION FLOW CHART

Remember that cleaning instruments is a critical step in infection prevention. Choose the method that is the safest and most effective for your practice.



### HANDELING:

Careful handling of contaminated instruments is necessary to avoid occupational exposures.



### RINSE:

Important to rinse the instruments to remove any loose debris.



### PRE CLEANING:

Pre cleaning instruments lessens the chances of debris drying and helps remove adherent materials. Pre cleaning involves spraying instruments with special chemicals or placing them into holding solutions.

Some items, such as handpieces and some plastic/resin instruments, should not be soaked.



### CLEANING:

Cleaning removes debris and reduces the number of microorganisms

Option 1: Manual cleaning - If necessary, scrubbing should occur under water.

Option 2: Mechanical Cleaning - There are two types of mechanical cleaners: ultrasonic and instrument washers. Employees can perform other tasks while the machines are operating.



### STERILIZATION: COLD SOLUTIONS

What is cold sterilization? Cold sterilization is a method of sterilization that requires the reusable semi-critical items to be immersed in liquid chemicals. These chemicals can include glutaraldehydes, peracetic acid solutions. Single-use items can never be cold sterilized. They are not manufactured to be sterilized and may resist the process because of the materials with which they are made of.

The most common type in dental offices is the steam sterilizer (autoclave), which involves heating water within a closed chamber. The result is steam and, in time, buildup of pressure.



### RINSE:

Important to rinse the instruments before sterilization as this prevents Biofilm build up and/or rust.



### LUBRICATION & DRYING:

Drying instruments prior to packaging lessens the chances of rusting and avoids wetting paper packaging. Wet paper can lead to torn packaging. Some items, including hinged instruments and handpieces, require lubrication. Excessive lubricants must be removed before packaging.



### PACKAGING:

Packaging instruments prior to sterilization prevents contamination during storage and distribution. Packaging involves either wrapped instrument cassettes or organizing cleaned instruments into function sets and placing them into sterilization pouches, bags, or trays.



### STERILIZATION: AUTOCLAVE SOLUTIONS

The heat generated is the sterilizing agent. Operational parameters most often used are 134°C/273°F with 206 kPa/30 psi of pressure. Shorter cycles usually require higher operational temperatures.

There are three types of steam sterilizers based on how air leaves the unit. They are gravity displacement (performs type N cycles), vacuum assisted (performs type B cycles), and positive steam flush with pressure pulses (performs type S cycles).