

STERILIZATION: A CRITICAL STEP IN INFECTION CONTROL

Sterilization is the process of destroying forms of microbial life including infectious bacteria, viruses, yeasts, molds and bacterial spores. The efficacy of sterilization processes can be easily monitored to assure that medical devices are free from pathogenic organisms and are safe for use in the medical and dental office. Sterilization is a statistical process which can provide a high level of confidence that all infectious organisms have been destroyed. Sterilization should not be confused with disinfection, which does not kill spores.

Disinfection is the process of destroying disease-causing microorganisms. It does not assure destruction of bacterial spores. Disinfection is usually achieved through the use of a chemical agent. There are a variety of chemical disinfectants available and each is designed to destroy a specific group of microorganisms. The product label of the chemical disinfecting agents should be consulted and strictly followed regarding range of microbial efficacy, concentration required, contact time and temperature, storage conditions, and shelf life.

Sterilization provides the greatest margin of safety and therefore, must be used in conjunction with disinfection. The disinfection process should be performed with strict controls and only when it is impossible to sterilize. The CDC and ADA guidelines specify that surgical and other instruments that normally penetrate soft tissue and/or bone should be sterilized before each use. They also specify that dental hand pieces should be sterilized after use with each patient. Follow the manufacturer's instructions for cleaning and rinsing methods prior to sterilization or disinfection.