



INFECTION CONTROL

DENTALELLE TUTORING

INFECTION CONTROL OBJECTIVES

- Reduction of available pathogenic microorganisms to a level at which normal resistance mechanisms of the body may prevent infection
- Elimination of cross contamination by breaking the chain of infection
- Application of standard precautions by treating each client as if they may have something

INSTRUMENT PROCESSING

- Ultrasonic**
- Package**
- Sterilize**

- Ultrasonic is preferred over manual cleaning

- If an office does not have an ultrasonic (although 99% will these days) manual cleaning is needed but **BE CAREFUL** not to cause injury

- In the sterilization area – all PPE is needed and utility gloves must be worn (not your regular examination gloves)

PACKAGING

- It is recommended to have all cassettes and loose instruments packaged **BEFORE** sterilization to avoid contact with airborne microorganisms
- The instruments must be rinsed and dried before placing in the package (air drying is preferred)
- Before removing after sterilizing, package must be dried so that handling of the sterilized package will not rip

METHODS OF STERILIZATION

- Moist heat, steam under pressure
- Dry heat
- Chemical vapor
- Ethylene oxide **NOT used in dentistry

MOIST HEAT

- **Moist heat** – can be used except for those instruments that cannot be subjected to high temperature. Sterilization is achieved by action of heat and moisture; pressure serves to attain the high temperature. Penetration ability is very important; instruments must be laid out properly.
- This is the most economical method of sterilization and most often used however it may corrode carbon steel instruments if precautions are not taken.



DRY HEAT

- **Dry Heat** – action of dry heat is oxidation. Primarily used for materials that cannot be sterilized with steam under pressure
- This is used because it does not corrode instruments but long exposure time is required (at least one hour).



CHEMICAL VAPOUR

- **Chemical Vapor** – a combination of alcohols, formaldehyde, water, ketone and acetone are heated under pressure that produces a gas to sterilize. The correct temperature must be attained before sterilization can occur, takes 20 minutes after the correct temperature is reached in order to sterilize.
- Refilling is needed at least after every 30 cycles. Corrosion does not occur and able to sterilize in a short period of time. The disadvantage is that with chemicals a high ventilated area is needed, a slight odor but rarely objectionable.



CHEMICAL DISINFECTANTS

- High level** - inactive spores and all forms of bacteria, fungi and viruses.
Can also be a steriliant if enough time is given
- Intermediate level** – inactivate all forms of microorganisms but do not destroy spores
- Low level** – do not destroy spores, tubercle bacilli or nonlipid viruses
- Glutaraldehydes (most common high level disinfectant used), chlorine compounds, idophores and complex phenolics** are adequate to use in dentistry.

STERILIZATION UNIT



CLASSIFICATION

- **Critical** – penetrate soft tissue or bone = sterilize or dispose
- **Semicritical** – touch intact mucous membrane, oral fluids = sterilize or high level disinfection
- **Noncritical** – does not touch mucous membranes = cleaning and intermediate level disinfection
- **Environment surfaces** – no contact with the client = cleaning and intermediate to low level disinfection

DENTAL UNIT



- **Critical** – hand piece, instruments
- **Semicritical** – radiographic bite block
- **Noncritical** – light handles, eyewear
- **Environmental** – walls, floor

RESOURCES

- Taken from the Dental Assisting FULL Board Exam Prep Course @ www.dentalelle.com
- Modern Dental Assisting [Textbook](#)