

## **Sterilization of the Great Lakes NOLA Dry Field System**

Sterilization is a critical aspect in the care and maintenance of the Great Lakes NOLA Dry Field System. The Dry Field System can be sterilized in a number of ways.

### **Autoclave (Steam Sterilization)**

The preferred manner of sterilization is Autoclaving or Steam Sterilization. We recommend that you autoclave on the “plastics” setting of your autoclave, or on the lowest temperature setting available. In any event, the temperature should not exceed 280°F (135°C). Typical autoclaves operate at approximately 250°F (121°C) so this should not be an issue. Because there are many types of autoclaves in use, it is difficult to provide guidance on the specific instructions of operating each. Follow the manufacturer’s instructions whenever possible. In general, sterilize wrapped items for 30 minutes and unwrapped items for 20 minutes at 250°F (121°C) and 106 kilopascals (15 pounds per square inch) pressure. (Do not begin timing until the autoclave reaches the desired temperature and pressure).

The entire Dry Field System can be safely autoclaved. The silicone tubing, though, after repeated exposure to steam sterilization or long-term high temperature or pressure, will eventually relax and become gummy. It should then be replaced. Replacement tubing is available through Great Lakes Orthodontics.

Following are a number of helpful tips when autoclaving your Dry Field System:

1. Disconnect at least one arm of the tongue cage from the cheek retractor prior to sterilization. This relieves the spring tension on the tongue cage arms thus increasing the life expectancy of the component. Also, this will allow the steam to reach all surfaces of the item.
2. Make sure that you completely purge the entire system of saliva and debris prior to sterilization. This can be easily accomplished by forcing water through the adapter end of the system. The Great Lakes NOLA Purging Syringe is ideal for this purpose as it easily fits over the adapter and facilitates the back flushing of the system.
3. Avoid arranging the Dry Field System too close to other items in the autoclave as this will prevent steam from reaching all surfaces.
4. Prevent contact with metal instruments that are in the autoclave.

### **Cold Sterilization**

If you do not have an autoclave, or it is not convenient to use it, you can cold sterilize the Dry Field System using solutions containing glutaraldehyde, low concentrations of hydrogen peroxide, isopropyl alcohol or other cold sterilants containing mostly inert ingredients. Keep in mind the following helpful tips when cold sterilizing your Dry Field System:

1. As in the case with Steam Sterilization, it is important to completely purge the system prior to sterilization. We recommend purging with sterilizing solution through the adapter end of the Dry Field System when cold sterilizing.
2. Cold sterilizing solutions should not contain Formaldehyde or high concentrations of bleach. This will cause damage and discoloration to the Dry Field System.

### **Dry Heat or Chemclave Sterilization**

Dry Heat and Chemclave Sterilization are not acceptable for use on the Dry Field System. The temperature of these methods is too extreme and will result in the melting of the plastics.