

Storage of Your Implants

Most of the time, investigators have their DSI implants in use, collecting valuable data. Occasionally a need to store them for a period of time will arise. It is crucial that the implants be stored properly to avoid damage to the implant or unnecessary loss of battery life. These instructions include the proper storage technique for both new and resterilized implants.

Storage of New or Exchanged Implants

All implants should be carefully examined when they arrive at your facility. Remove the packages containing the implants from the shipping boxes. Save the shipping boxes and foam liners for returning used implants.

Inspect the implant package for signs of damage. Using your AM radio, confirm that the implant is turned off. Although each unit is checked just before shipping, it is possible that the implant will be exposed to stray magnetic fields during shipment. This can cause the unit to be turned on unintentionally. Implants in the OFF mode may lose up to 10% of the battery life within 12 months after the manufacture date. Storage in a refrigerator does not provide significant benefit in terms of battery life. If the implants are to be stored for an extended period of time, DSI recommends periodic checks with an AM radio to ensure the implants are still turned off. The implants should be turned on 1-6 hours before use to allow the electronics to stabilize. Zero offset should be checked on all pressure implants just prior to use to verify stability.

New and exchanged units are sterile upon arrival. If the package remains undamaged, the sterility is warranted according to the information on the package label. The implants should be stored in a cool (between 10 and 25 degrees Celsius), dry area away from exposure to static discharge and magnetic fields. They should never be exposed to temperatures above 60 degrees Celsius, as this will void all warranties. It is also important to store them in an area where they will not be accidentally dropped or have items placed on top of them.

Storage of Resterilized Implants

Currently, there is a method for on-site resterilization of the implants. For implants used in short-term studies, this allows multiple uses from a single unit before it is necessary to return it to DSI for refurbishment. This provides convenience for the investigator as well as reducing the overall cost of the implants. Occasionally there may be a delay between when the unit is removed from the first animal and the next implantation. Proper storage of the resterilized implant is necessary to assure that the unit will perform normally at the next use.

Following explanation, each implant should be thoroughly cleaned and resterilized according to DSI's resterilization procedure (please see the Technical Note on Resterilization). The catheters of pressure implants should be re-gelled. Using your AM radio, each implant should be checked to assure that it is properly turned off before storage. If the original implant package was saved, place the implant into the plastic packaging. This will help to identify the implant and the calibration values associated with it.

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There is no effective way to maintain unit sterility during storage; therefore, each unit will require sterilization again at the time of use. Sterilization prior to storage is necessary to prevent the spread of bacteria during handling.

If the implants are to be stored for an extended period of time, DSI recommends periodic checks with an AM radio to ensure the implants are still turned off. Before re-implanting the implants, resterilize them according to the procedure in the Resterilization Technical Note. The implants should be turned on 1-6 hours prior to use to allow the electronics to stabilize. Zero offset should be checked on all pressure implants prior to use to verify stability. If the proper procedure for storage is followed, the implants should perform just as well as the day they were shipped.