

Preventing Damaged Sensors

In Blood Pressure Implants

The pressure sensors in DSI's blood pressure transmitters are delicate instruments and can be easily damaged. Therefore, it is necessary to use proper care when handling the transmitters. Below are preventative measures to take when handling the blood pressure transmitters to reduce the possibility of a damaged sensor.

Handle the transmitter with care and be sure not to drop it. When moving or handling the transmitter, always handle it by the body of the device; not the catheter or leads.

Try not to produce any situations where excessive pressure is placed anywhere along the length of the catheter. The distal pressure-sensing tip of the catheter is especially sensitive and should never be grasped or handled directly. Care should be taken when handling the catheter and device.

Make sure to be aware where you are gripping the protective tip cover of the catheter. If the protective cover is gripped too close to the catheter, it could collapse or crush the lumen of the catheter. This causes a sharp increase in pressure. Snapping the protective tip cover off can cause a sharp change in pressure and may cause a void in the gel. Once the catheter tip covers are removed, they should not be placed back onto the catheter as this can result in a high pressure wave and damage the pressure sensor.

When handling and inserting the catheter, take care to grasp behind the pressure-sensing tip on the overlap section with a proper surgical instrument so that the lumen of the catheter does not collapse or become crushed. **DSI strongly recommends the use of a Vessel Cannulation Forceps.** For more information on this surgical instrument, please see the Additional Lab Supplies document located in the Technical Notes section on www.datasci.com.

When re-gelling the catheter, be sure to monitor the amount of pressure being applied with an AM radio if this function is available for the implant model being used. Re-gelling should occur anytime there is a loss of gel. The catheter should be examined after the tip cover is removed and before it is inserted to ensure the catheter tip is filled with gel. If the catheter becomes crushed or kinked during insertion, the catheter should be re-examined for gel loss and re-gelled if needed. For further instructions on re-gelling, contact DSI's Technical Staff or see the Technical Notes on Re-gelling.

If it is necessary to cut the catheter when removing the implant after use, do not use a pair of scissors. Catheters should always be cut with a new scalpel blade at a 45-degree angle to the catheter while cutting away from the transmitter body. The catheter should be cut at no less than 3cm from the body

of the transmitter. DSI recommends removing the entire transmitter and catheter intact whenever possible to avoid damage and if it is necessary to return the device in for analysis.

Product Return Information

Implanted transmitters and contaminated equipment may constitute a biohazard. In order to protect anyone who may come in contact with the contaminated product and comply with national and international transportation regulations, all implants and equipment that comes in contact with an animal must be cleaned and disinfected before it is returned to DSI.

Ensure that the devices are well packed, preferably in their original packaging and boxes, and return the devices via a traceable shipping method to prevent losses in transit. Replacement of a damaged pressure sensor may require a fee in addition to the standard transmitter exchange charge.

A detailed procedure for properly returning telemetry devices to DSI is provided on our website: www.datasci.com/policies/returning-products

Contact DSI Technical Support with any concerns or comments regarding the performance of the devices, **prior to returning them**, to allow for proper handling and product investigation.

DSI Technical Support - U.S. and Canada

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