

# Nucleoplasty®

## PERC™ DC SpineWand™ Technique Guide

Coblation® uses radiofrequency energy to excite the electrolytes in a conductive medium, such as saline solution, creating a precisely focused plasma. The energized particles in the plasma have sufficient energy to break molecular bonds, excising or dissolving soft tissue at relatively low temperatures (typically 40°C to 70°C), thereby preserving the integrity of surrounding healthy tissue.



### **Recommended Wand:**

Perc DC SpineWand

### **Preparation for Use:**

The operator should be experienced in general and electrosurgical spinal surgery. Additional training from a company representative on the use of the SpineWands and the ArthroCare® System 2000 is recommended.

### **Equipment Preparation:**

#### **Materials Needed:**

- C-arm fluoroscope with image intensification
- ArthroCare System 2000 Controller with foot control
- ArthroCare Patient Cable (Note: see Instructions For Use for sterilization instructions)
- Convenience Pack:
  - Includes DC SpineWand and 19-gauge x 3” sterile introducer needle with trocar tip stylet
  - Recommended use is one needle per spine level

#### **Setup:**

- Connect the power cord to the controller and outlet
- Connect the foot control to the controller
- Deliver the 19 gauge introducer needle to the sterile field
- Deliver the SpineWand and the patient cable to the sterile field
- Connect the patient cable to the controller, aligning the respective dots
- Connect the patient cable to the SpineWand extension cable, aligning the respective dots
- Set the controller to power level 2

#### **Patient Preparation:**

- Prepare the patient pre-operatively according to standard procedures

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## 1 Use a standard anterior-lateral surgical approach

NOTE:

- Tighten lure lock on cervical needle and stylet before insertion to avoid stylet push back.
- Recommended use is one introducer needle per spine level.

**A** During insertion of the access needle, target the tip of the stylet to the center of the nucleus in both the coronal and sagittal planes.

**B** Confirm proper positioning using A/P and lateral views.

**C** Re-position the green marker on the needle shaft down to skin level (illustration 1).

## 2 Withdraw stylet from needle and insert the Perc DC SpineWand under fluoroscopic guidance

CAUTION:

- Do not dissect with the DC SpineWand tip
- Special care must be taken (clear fluoroscopic imaging of the SpineWand tip) to avoid ablating too deeply into the tissue or against vertebral body endplates.

**A** Monitor the insertion of the SpineWand to the tip of the needle. SpineWand tip extends 5 mm beyond needle tip.

**B** Secure the luer-lock onto the needle hub (illustration 2b).

**C** Confirm the position of SpineWand tip using A/P and lateral views (illustration 3).

## 3 Connect the SpineWand cable to the patient cable

**A** Align the dots at the base of each connector (illustration 4).

**B** Directly insert the male into the female connector.

**C** Secure the sterile cable onto the sterile field.

## 4 Verify the proper placement of the tip of the SpineWand

**A** Set the controller at power level 2.

**B** Depress COAG on the foot controller for one-half second.

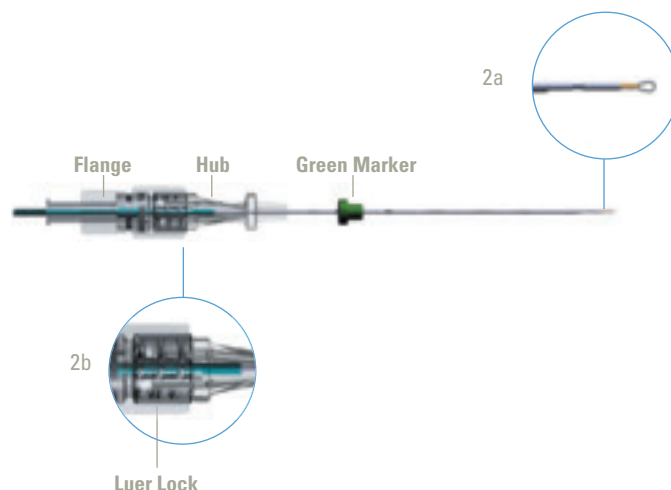
**C** If *stimulation* (movement) is observed stop, and reposition the SpineWand tip (illustration 3).

Illustration 1



Positioning of marker on needle shaft

Illustration 2



Insertion of DC SpineWand under fluoroscopic guidance

Illustration 3



Confirming position of tip with fluoroscopic guidance

# 5

## While holding the needle hub securely with one hand:

CAUTION: If nerve root or spinal cord come into direct contact with the tip of the SpineWand during ablation, then serious nerve injury may result

- A Grasp the Perc DC flange (illustration 2) with the other hand.
- B Depress ABLATION pedal on the foot controller for 5-to-10 seconds while rotating the flange 180° in a back-and-forth motion (illustration 5).

# 6

## If additional ablation is desired:

- A Position needle tip slightly beyond (2mm) center of disc during initial insertion, create your first Coblation zone using steps 5a and 5b.
- B Retract 2 mm, using fluoroscopic guidance to confirm correct SpineWand deployment.
- C Confirm new position of the SpineWand tip using A/P and lateral views.
- D Repeat steps 3 through 5.

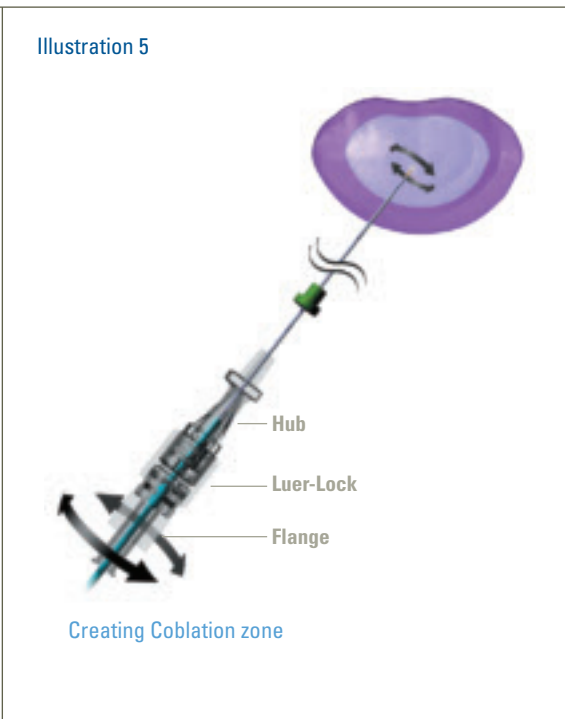
# 7

## After the Coblation zone has been created, withdraw the SpineWand from the needle, and then withdraw the needle from the patient. Discard SpineWand and needle.

CAUTION: Do not withdraw the SpineWand while it is activated.

# 8

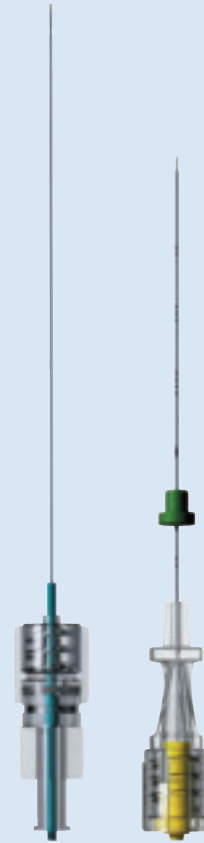
## Follow standard postoperative procedures and shut down system per the Instructions For Use.



### Special Notes About the Perc DC SpineWand Technique:

- DO NOT maneuver or advance the access needle with the SpineWand inserted. Advancing with the DC SpineWand will damage the tip.
- Throughout the procedure, ensure the access needle is held securely in place to prevent needle displacement caused by patient movement.
- When performing ablation with the SpineWand, **STOP the procedure** if the patient complains of **sudden onset of pain**, then:
  - 1 Closely examine the A/P and lateral views under fluoroscopy.
  - 2 Confirm proper placement of the cannula tip within the target tissue.
  - 3 **Do not continue** until proper placement of the SpineWand's tip has been confirmed.
- When subsequently using ablation with the SpineWand, if the patient again complains of sudden onset of pain, you must **END** the procedure.
- Refer to the Perc DC SpineWand Instructions For Use for a more comprehensive listing of Warnings and Precautions.

PERC DC SpineWand Specifications:	
SHAFT DIAMETER:	0.91 mm/.037 inches
WORKING LENGTH:	76 mm / 3 inches
MODE:	Plasma ablation
DESIGN:	Bipolar electrode
Convenience Pack:	
CATALOG NUMBER:	K7910-01
INCLUDES:	Perc DC SpineWand and introducer needle with trocar tip stylet, sterile, 19 gauge x 3"



Perc DC with 19 gauge x 3" needle



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**CAUTION:** Federal (USA) law restricts this device to sale by or on the order of a physician.

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