The only versatile probe portfolio for tailored ablations

When it comes to ablating lesions, achieving the best outcomes for each individual patient is paramount. The versatile NEUWAVE™ probe portfolio allows you to tailor ablations to each patient's clinical need to help ensure total coverage of the ablated lesion.

<table>
<thead>
<tr>
<th>NEUWAVE™ PR Probe</th>
<th>NEUWAVE™ LK and LN Probes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Probe Ablation Size</strong></td>
<td>≤ 4 cm, any soft tissue(^1) Multiple probes can be used for larger, confluent ablations(^2)</td>
</tr>
<tr>
<td><strong>Emitting Point</strong></td>
<td>1 cm proximal from tip</td>
</tr>
<tr>
<td><strong>Burn Pattern</strong></td>
<td>Ablation encompasses tip in 10 seconds and then burns proximally (away)(^3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEUWAVE™ LK and LN Probes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Probe Ablation Size</strong></td>
</tr>
<tr>
<td><strong>Emitting Point</strong></td>
</tr>
<tr>
<td><strong>Burn Pattern</strong></td>
</tr>
</tbody>
</table>

Minimally invasive, highly efficient probe design

- **>99\% efficient power delivery** to the tissue with patented triaxial antenna\(^4\)
- **17 gauge probes** for less invasive procedures
- **Real-time temperature monitoring** with 3 thermocouples
- **CO\(_2\) cooled with Tissu-Loc™** to reduce probe migration
- **Highly visible** under CT and ultrasound

**NEUWAVE™ PR Probe**
The only probe with distal energy control to help limit necrosis of non-target tissue

**NEUWAVE™ LK and LN Probes**
Tissue-tuned for large, single probe ablations
Anatomy of our probes

**NEUWAVE™ PR Probe**

A Emitting Point - point where microwave energy is emitted
B Active Zone Thermocouple - measures tissue temperature to confirm tissue necrosis
C Tissu-Loc™ Thermocouple - measures and controls Tissu-Loc cooling mechanism used to adhere probe to tissue
D Safety Thermocouple - measures probe shaft temperature to avoid potential physician/patient skin burns
E Cautery Mark - marking for use with cautery, indicating when to stop removing the probe from patient
F LED Channel Indicators - identifying the active probe channel

**NEUWAVE™ LN & LK Probes**

1 cm Emitting Point
2 cm Emitting Point

**Key Probe Elements**

- **A** Emitting Point - point where microwave energy is emitted
- **B** Active Zone Thermocouple - measures tissue temperature to confirm tissue necrosis
- **C** Tissu-Loc™ Thermocouple - measures and controls Tissu-Loc cooling mechanism used to adhere probe to tissue
- **D** Safety Thermocouple - measures probe shaft temperature to avoid potential physician/patient skin burns
- **E** Cautery Mark - marking for use with cautery, indicating when to stop removing the probe from patient
- **F** LED Channel Indicators - identifying the active probe channel

**General probe specifications**

- **Cable length**: 14 m
- **Available probe lengths**: 15 cm, 20 cm
- **Gauge sizes**: 15 gauge tapered to 17 gauge

*For complete product details see instructions for use.*

DISCLAIMER: The NEUWAVE™ Microwave Ablation System is cleared for the ablation (coagulation) of soft tissue in percutaneous, open surgical and in conjunction with laparoscopic surgical settings. The NEUWAVE™ Microwave Ablation System is not cleared for treatment of any specific disease or condition. The NEUWAVE™ Microwave Ablation System is not indicated for use in cardiac procedures. The system is designed for facility use and should only be used under the orders of a clinician. Clinicians should exercise their independent medical judgment in use of the system.

1. Bovine liver ex-vivo: 65W, 5 min = 4.1 cm x 2.6 cm. 65W, 10 min = 4.7 cm x 3.0 cm. 2. Bovine liver ex-vivo: 140W, 5 min = 6.0 cm x 3.7 cm. 140W, 10 min = 7.0 cm x 4.0 cm. 3. Bovine kidney ex-vivo: 140W, 5 min = 4.4 cm x 2.5 cm. 140W, 10 min = 6.4 cm x 3.4 cm. 4. Bovine lung ex-vivo: 140W, 5 min = 6.0 cm x 3.3 cm. 140W, 10 min = 6.0 cm x 3.9 cm. 5. Laeseke et al. Multiple-Antenna Microwave Ablation: Spatially Distributing Power Improves Thermal Profiles and Reduces Invasiveness. Journal of Interventional Oncology. 2009; 2(2):105-112. 6. Brace et al. Simultaneous Activation of Multiple Microwave Antennas Improves Circularity and Ablation Zone Volume Compared to Sequentially Overlapping Ablations. Presented at conference with accompanying poster, WCIO 2014. 7. Brace, C. Microwave Tissue Ablation: Biophysics, Technology, and Applications. Critical Reviews™ in Biomedical Engineering, 38(1):65–78 (2010)

© NeuWave Medical 2017
06/19/17/0308