#### **Case Examples**<sup>7</sup>



A 2.1 cm posterior renal lesion was discovered in a patient not qualified for surgery. Microwave ablation was performed under general anesthesia with a single NEUWAVE<sup>TT</sup> PR Probe at 65 watts for 3.5 minutes. The 2-month follow-up MRI showed complete technical success.



**Pre-procedure scan** 

**Post-procedure scan** 



Patient presented with a 3.5 cm renal lesion in direct contact with the collecting system. Microwave ablation was performed under general anesthesia with 2 NEUWAVE<sup>TT</sup> PR Probes at 65 watts for 8 minutes. The lesion was completely ablated without causing damage to the collecting system. The 4-month post-ablation image indicated complete technical success.





**Pre-procedure scan** 

**Post-procedure scan** 

DISCLAIMER: The NEUWAVE<sup>™</sup> 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.

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# **NeuWave**<sup>™</sup>

Shaping the future of kidney surgery with microwave ablation





### **Microwave leads ablation market growth**

Microwave ablation represents an emerging technology that is being increasingly adopted due to its efficacy in ablating soft tissue and fast procedure times compared to radiofrequency ablation and cryoablation.<sup>1</sup>

## Microwave is the fastest growing ablation modality<sup>1</sup>

Modality	2013	2023	<b>CAGR</b> (13-'23)
Radiofrequency	24,550	16,090	↓ 4.1%
Cryoablation	9,040	16,010	↑ 5.9%
Microwave	7,850	31,200	<b>↑ 14.8%</b>

"Due to limitations posed by radiofrequency, microwave will largely replace radiofrequency as the preferred ablation choice in the future."

"Some companies, such as **NEUWAVE**<sup>™</sup>, provide devices that are **specifically designed to effectively** ablate tissue in delicate, aerated lung tissue."

– Millennium Research Group 2015<sup>1</sup>

#### Benefits and risks of microwave ablation

Less invasive compared to radical and partial nephrectomy.

- Efficacious in ablating soft tissue with a low complication rate.<sup>23</sup> Emerging clinical data showing fewer postoperative complications and less perioperative blood loss than partial nephrectomy.<sup>4</sup>
- Most procedures completed with 5-10 minutes of ablation time.<sup>5</sup>

While all medical procedures carry some risk, microwave ablation is generally associated with a low rate of complications, which tend to be minor if they do occur. The most common risks of microwave ablation include pain, fever, and heat damage to normal tissue adjacent to the target. Major complications are rare, but include bleeding and infection.

# How microwave laproscopic ablation works





Ablation probe(s) are placed laparoscopically (via trocar) or percutaneously through the skin.

Microwave energy is activated, delivering up to 140 watts of power to the target when using a single ablation probe, and up to 195 watts when using 2-3 probes simultaneously. Tissue

Active ablation zone can be monitored real time using intraoperative ultrasound. In most cases, complete tissue necrosis with desired margin achieved with only 5-10 minutes of active ablation.