

What is Microwave Ablation?

Microwave Ablation

A patient's guide to a
minimally invasive procedure



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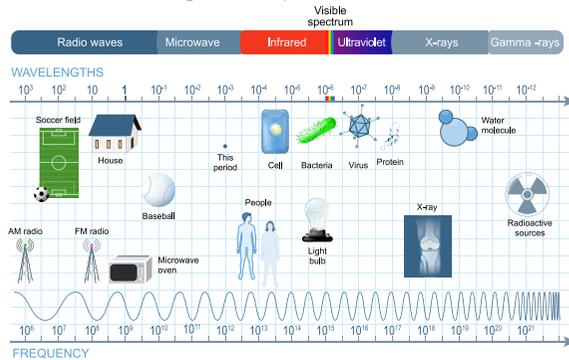
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Microwave Ablation

Microwave ablation is a minimally invasive procedure that uses microwaves to destroy tissue. Microwaves are electromagnetic waves that fly through space at the speed of light. They are shorter than radio waves but longer than infrared radiation.

The Electromagnetic Spectrum



Just like the everyday microwave you use at home, microwaves heat up tissue by vibrating water molecules within the tissue back and forth 2-5 billion times a second. This vigorous movement of water molecules creates friction and this in turn creates heat.

During the microwave ablation procedure, your physician will use either CT (X-rays) or ultrasound (sound waves) imaging to precisely locate the lesion and to guide a specialized needle-like microwave energy applicator into it.

Once the applicator is placed, microwaves are carefully sent through the applicator to heat up the lesion causing cell death.

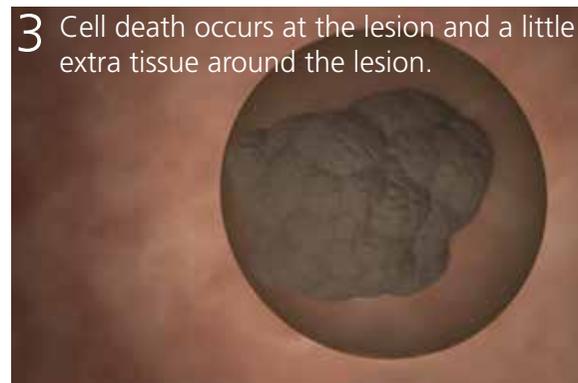
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1 Applicator is targeted to the lesion using image guidance.



2 Microwave energy is carefully delivered.



3 Cell death occurs at the lesion and a little extra tissue around the lesion.

The actual ablation time (when microwaves are on) takes only around 2-6 minutes of the entire procedure which may take 1 to 2 hours. Anesthesia is commonly used so that you remain comfortable. You may experience some discomfort during the insertion of the applicator, but you will not feel pain once the applicator is in place and you will not feel any heat during the procedure. Typically, patients can go home the same day as an outpatient procedure or will be asked to stay overnight. You may experience some discomfort after the procedure including inflammation and a low grade fever as your body heals itself.

Benefits:

- Minimally invasive- usually done on an outpatient basis with a small bandage over the site of insertion
- Multiple ablations can be done as prescribed by your physician
- Few complications or side effects

Patients may experience:

- Low-grade fevers for a few days following the procedure
- Low risk of skin burns, bleeding, fluid accumulation, injury to adjacent structures, and infection

Treatment choice depends on each patient's specific condition. Your doctor will help you decide if microwave ablation is the best option for you.