

# AcuSect™

Advanced Radiowave Technology

The **PRECISION** you require  
with the **VERSATILITY** you need



**ellman®**  
Experts in Precision Surgery.

# AcuSect™ Redefines Your Surgical Results

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The AcuSect™ radiosurgical energy source delivers advanced radiowave technology providing outstanding surgical control, precision and versatility. The high frequency of 4.0 MHz minimizes heat dissipation, and thus cellular alteration, while cutting and coagulating soft tissues. AcuSect™ is the ideal solution for your office-based minor surgical procedures.

## Clinical benefits include:

- Reduced post-operative discomfort<sup>1</sup>
- Minimal scar tissue formation<sup>2,5</sup>
- Precise incisions in delicate tissues<sup>3</sup>
- Enhanced healing<sup>4</sup>
- Excellent cosmetic results<sup>2,5</sup>

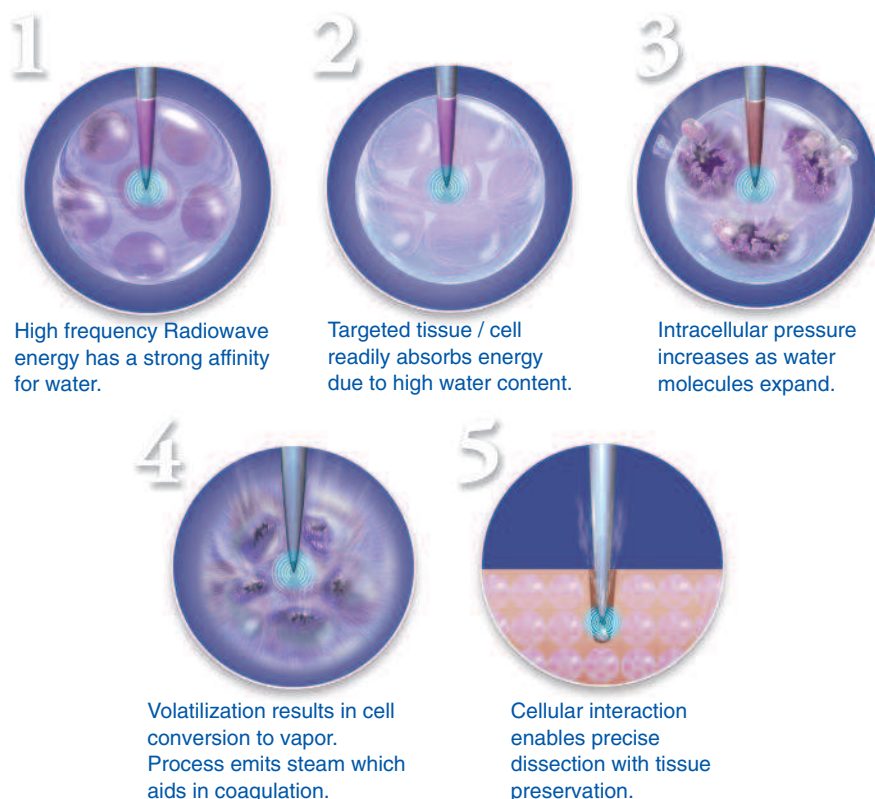
## Features

- **Solid-State Circuitry** for dependable, consistent energy emission
- **Four Distinct Waveforms** provide procedure-specific tissue treatment options
- **Monopolar and Bipolar** functionality resulting in control and precision beyond that of conventional electrosurgery
- **Ergonomic design** - including simple menu format and low-profile Design which permits ease of set-up and function

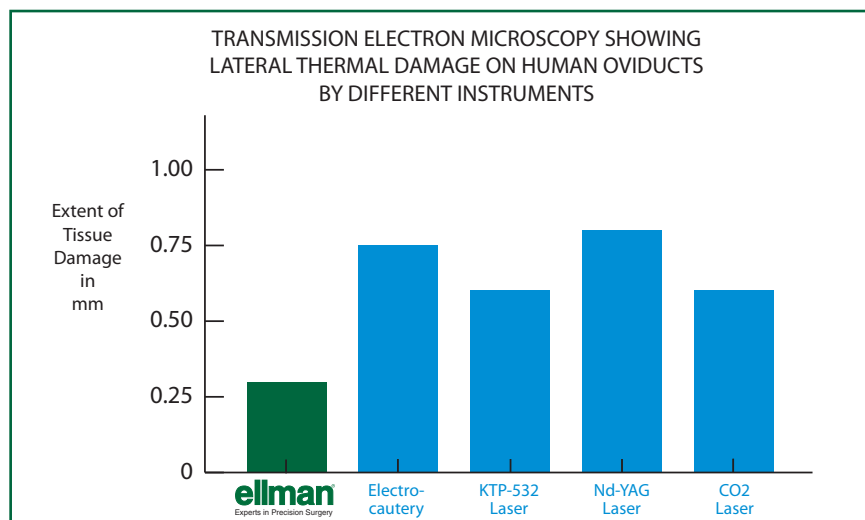
## How Our Patented Radiowave Technology Works

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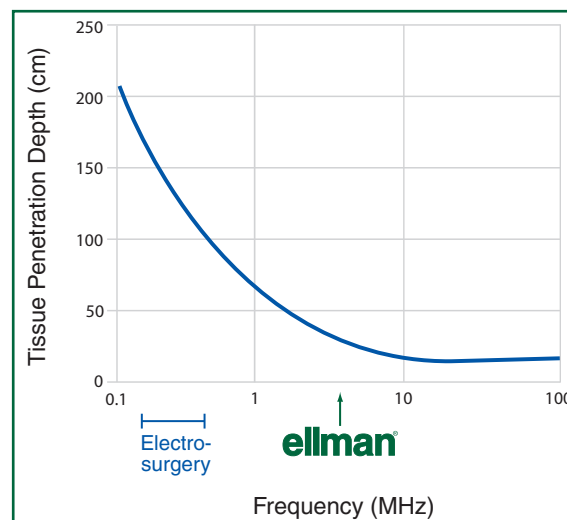
### Cellular Radiowave Absorption



# Minimal Lateral Thermal Damage



Reference - Olivar, AC, et al, Ann Clin Lab Sci. 1999 Oct-Dec; 29(4): p281-5



Source: Golio, JM, et al, "RF and Microwave Applications and Systems", The RF and Microwave Handbook, p21-2.

There is an inverse relationship between frequency and how deeply RF energy penetrates tissue.

- Ellman radiowave technology produces one-third the lateral thermal damage as compared to conventional electrosurgery
- Ellman radiowave technology produces one-half to one-third of the lateral thermal damage versus most lasers

## Four Distinct Waveforms for Optimal Clinical Outcomes

### 1. Monopolar Fully Filtered (Cut)



- Micro-smooth cutting
- Negligible lateral heat
- Minimal cellular destruction
- Best cosmetic results. Fastest healing
- Ideal for skin incision and biopsy



Before



After

### 3. Monopolar Partially Rectified (Hemo)



- Coagulation / Shrinkage
- Hemostasis with controlled penetration
- Ideal for cutting with maximum hemostatic control



Before

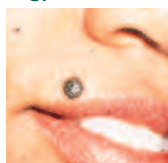


After

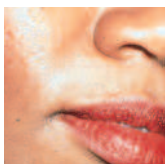
### 2. Monopolar Fully Rectified (Cut/Coag)



- Cutting with hemostasis
- Ideal for sub-cutaneous tissue dissection and planing. Especially useful in vascular areas while producing minimal amounts of lateral heat and tissue damage



Before

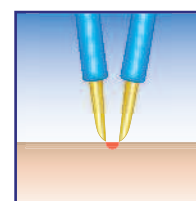


After

### 4. Bipolar (Hemo)



- Pinpoint, micro-coagulation
- Minimal charring or tissue necrosis
- Ideal for coagulation in and around critical anatomy



## AcuSect™ Specifications

### Dimensions

Height: 4.5 inches  
Width: 10 inches  
Depth: 10.5 inches  
Weight: 10 lbs

### Output Frequency

4.0 MHz

### Line Voltage

110/120/220/240

### Output Power

RMS: 50 Watts

### Line Frequency

50 - 60 Hz

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### Clinical Citations

1. Ericsson, E., et al, The Laryngoscope (2007); vol 117, p654.
2. Botero, G.E.S, J Otol Head Neck Surgery (1996); vol 24 (1), p69.
3. Niamtu, J., Chapter 4B, "Radiowave Surgery in Oral and Maxillofacial Surgery", in Bell, W., et al, *Distraction Osteogenesis of the Facial Skeleton*, 2007, p30-37.
4. Bridenstine, J.B., Derm Surgery (1998); vol 24, p397-400.
5. Aferzon, M, Derm Surgery (2002); vol 28, p735-738.

