AcuSect™

Advanced Radiowave Technology

The PRECISION you require with the VERSATILITY you need

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Experts in Precision Surgery.

AcuSect™ Redefines Your Surgical Results

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:

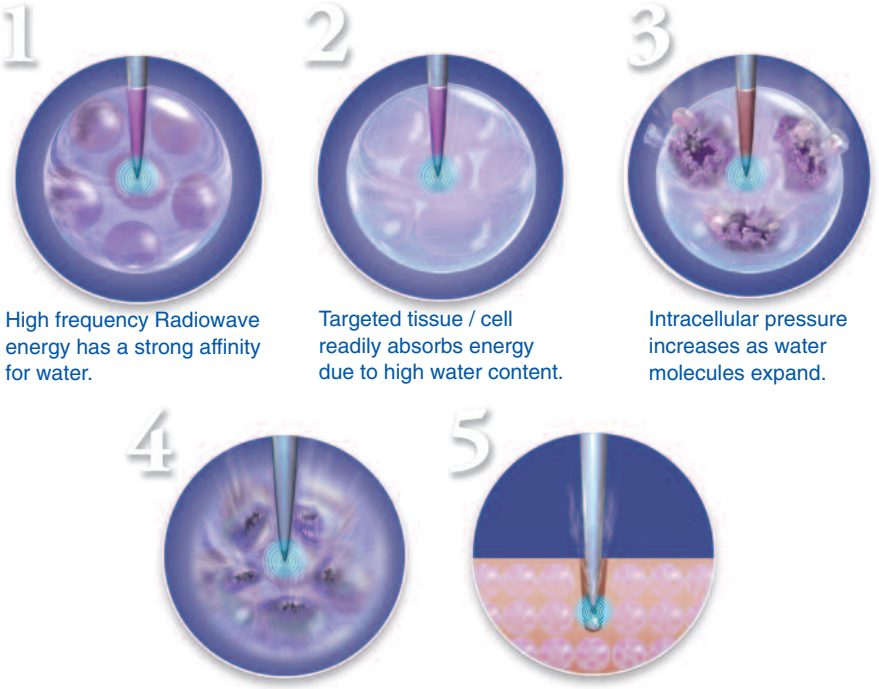
- Reduced post-operative discomfort[1]
- Minimal scar tissue formation[2.5]
- Precise incisions in delicate tissues[3]
- Enhanced healing[4]
- Excellent cosmetic results[2.5]

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

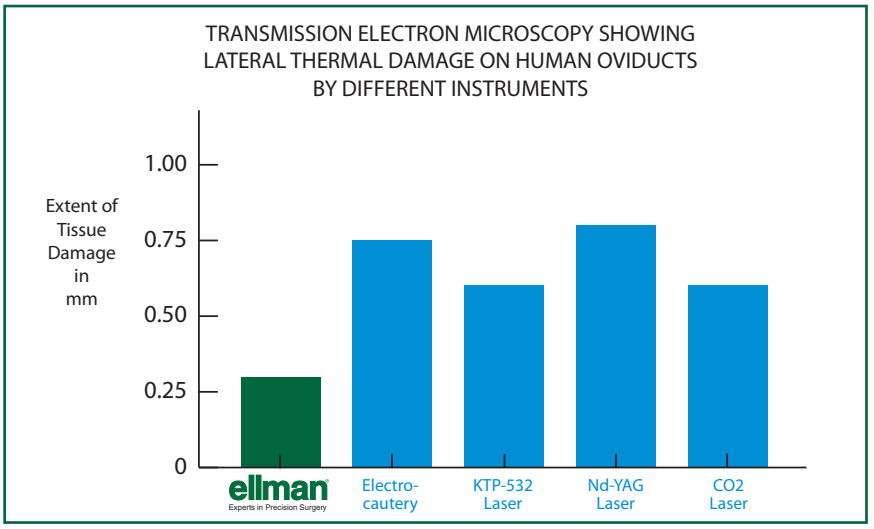
How Our Patented Radiowave Technology Works

Cellular Radiowave Absorption

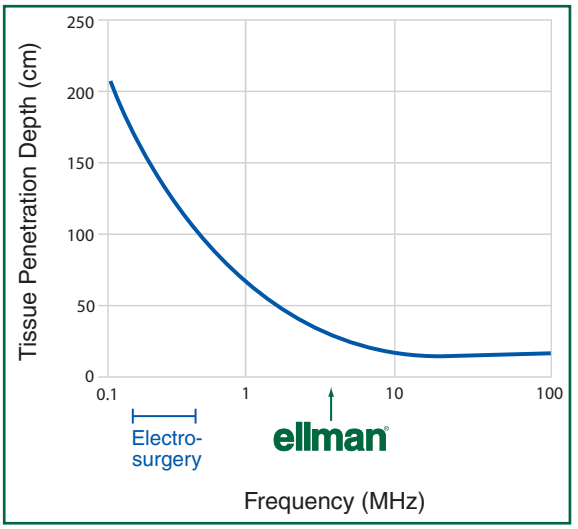


1. High frequency Radiowave energy has a strong affinity for water.
2. Targeted tissue / cell readily absorbs energy due to high water content.
3. Intracellular pressure increases as water molecules expand.
4. Volatilization results in cell conversion to vapor. Process emits steam which aids in coagulation.
5. Cellular interaction enables precise dissection with tissue preservation.

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)

Before

After

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

2. Monopolar Fully Rectified (Cut/Coag)

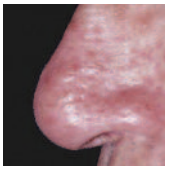
Before

After

- 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

3. Monopolar Partially Rectified (Hemo)

Before

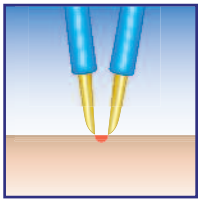


After

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

4. Bipolar (Hemo)

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



Shown with AcuSect™, Surg-e-Vac™ and Surgi-Cart™

AcuSect™ Specifications

Dimensions	**Output Frequency**
Height: 4.5 inches	4.0 MHz
Width: 10 inches	
Depth: 10.5 inches	**Line Voltage**
Weight: 10 lbs	110/120/220/240
Output Power	**Line Frequency**
RMS: 50 Watts	50 - 60 Hz

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.

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