SURGITRON® EMC

Radiofrequency Energy Source

The PRECISION you require with the VERSATILITY you need

ellman®

Experts in Precision Surgery

Surgitron® FFPF EMC Energy Sources

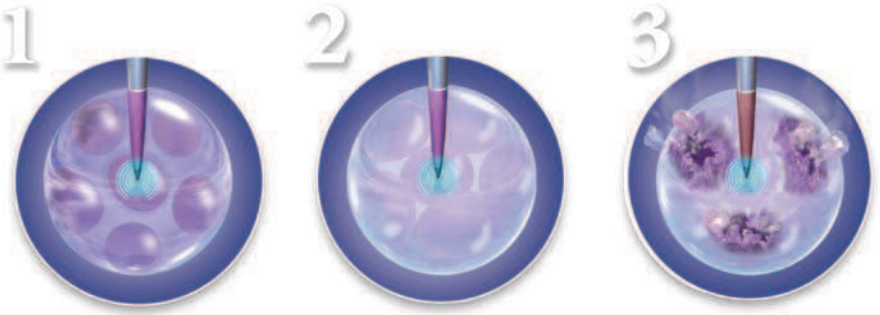
The Surgitron® EMC is a highly dependable energy source that cuts and coagulates soft tissue using high frequency radiowave technology.

The EMC operates at 3.8 MHz, enabling a precise incision with significantly less heat and resultant thermal damage than typically found with conventional electrosurgery. Since tissue stays cooler with ellman® Radiosurgery®, you can feel confident that you are minimizing cellular destruction along the incision path.[1,2]

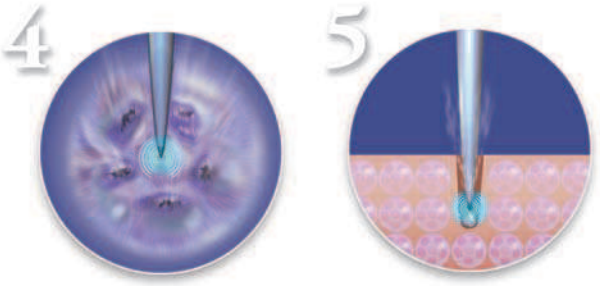
In addition to cut mode (fully filtered), the EMC offers three other waveforms providing more hemostatic tissue effects. Cut/Coag mode uses a fully rectified waveform. Coag mode uses a partially rectified waveform. The fourth waveform is fulguration for intentional tissue damage.

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.

Distinct Benefits for Your Practice and Your Patients

- **Precision** – create precise incisions in a variety of tissue structures[3]
- **Versatility** – no other energy-based technology has the surgical versatility of ellman®[2]
- **Quick Recovery** – with less tissue destruction, healing is hastened and your patients can recover quickly[4]
- **Decreased Post-Operative Pain** - radiowave surgery causes less trauma[5]
- **Decreased Post-Surgical Edema** - low temperature equals less tissue destruction[6]
- **Less Burning or Charring of Tissue** – radiowave surgery minimizes burning of tissue, unlike laser or electrosurgery[1]
- **Less Smoke and Plume** – Allows better visualization[7] while reducing odor

Features

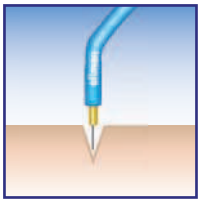
- Intuitive, user-friendly design
- Cost-effective reusable handpieces
- Convenient reusable antenna plate that does not require skin contact
- Footswitch activated with optional fingerswitch control

Surgitron® F.F.P.F. EMC
3.8 MHz

Four Distinct Waveforms for Optimum Results

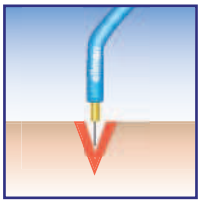
1. Fully Filtered (Cut)

- Micro-smooth cutting
- Negligible lateral heat
- Minimal cellular destruction
- Best cosmetic results. Fastest healing[4,6]
- Ideal for skin incision and biopsy



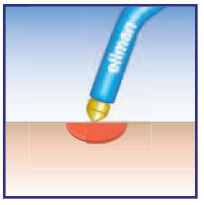
2. Fully Rectified (Cut/Coag)

- 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



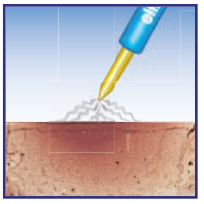
3. Partially Rectified (Coag)

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



4. Fulguration

- Maximum penetration and hemostasis
- Ideal for intentional tissue destruction



Shown with Surgitron® EMC, Surg-e-Vac™ and Surgi-Cart™

Surgitron® EMC Specifications

Dimensions	**Output frequency**
Height: 6.25 inches	3.8 MHz
Width: 8 inches	
Depth: 9 inches	**Line Voltage**
Weight: 9.25 lbs	110/120/220/240 volts
Output Power	**Line Frequency**
RMS: 90 Watts	50 - 60 Hz
Peak: 140 Watts	

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Clinical Citations

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2. Data on file.
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. Ericsson, E., et al, The Laryngoscope (2007); vol 117, p654.
6. Aferzon, M, Derm Surgery (2002); vol 28, p735-738.
7. Eremia, S.,et al, Dermatol Surg (2001); 27: p1052-1054.

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