# SURGITRON® EMC

Radiofrequency Energy Source

The PRECISION you require with the VERSATILITY you need





### **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<sup>®</sup> Radiosurgery<sup>®</sup>, you can feel confident that you are minimizing cellular destruction along the incision path.<sup>1,2</sup>

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

#### **Distinct Benefits for Your Practice and Your Patients**

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





# **Four Distinct Waveforms for Optimum Results**

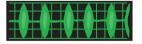
#### 1. Fully Filtered (Cut)



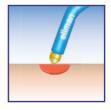
- Micro-smooth cutting
- Negligible lateral heat
- Minimal cellular destruction
- Best cosmetic results. Fastest healing 4.6
- Ideal for skin incision and biopsy



#### 3. Partially Rectified (Coag)



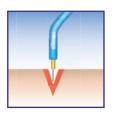
- Coagulation / Shrinkage
- Hemostasis with controlled penetration
- Ideal for cutting with hemostatic control



#### 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



#### 4. Fulguration



- · Maximum penetration and hemostasis
- Ideal for intentional tissue destruction



# Shown with Surgitron® EMC, Surg-e-Vac<sup>™</sup> and Surgi-Cart<sup>™</sup>

### **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



#### **Clinical Citations**

- 1. Olivar, A.C., et al, Ann Clin Lab Sci. (1999); 29(4): p281-5.
- 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.



