

Technical Write-up

RITA Radiofrequency Generator & StarBurst Electrodes

Radiofrequency is electric energy, which is used to create heat. The heat is created in a specific location, at a specific temperature, for a specific period of time and ultimately results in the death or destruction of unwanted tissue. During a Radiofrequency procedure, an electrode is placed directly into the target tissue. An array of several small curved tines is deployed from the end of the electrode in to the tissue.

How does it work?

The RITA generator is turned on and target temperatures are set. The Radiofrequency (RF) energy flows through the electrodes, causing the nearby tissue to heat up. Once sufficient temperatures have been reached, the heat kills the unwanted tissue within a few minutes.

Thermocouples (tiny thermometers) incorporated in to the tips of the electrodes allow continuous monitoring of tissue temperatures, and power is automatically adjusted so that the target temperatures remain constant. Ultrasound is typically used to monitor the treatment process. Heat is a very effective means of killing tissue. As tissue temperature rises above 113 Degree F (50 Degree C) it is permanently damaged. The process is rapid, typically requiring less than 10 to 15 minutes exposure time for a 2-cm ablation. The size of the ablated area is determined largely by the size of the electrode, temperature of the tissue and the duration of time the energy is applied. There is a sharp boundary between dead tissue and unaffected surrounding tissue thus unwanted tissue can be ablated without much sacrifice of the surrounding normal tissue.

The StarBurst electrode is an Radiofrequency Ablation Device designed to provide reproducible spherical ablation up to 2 cm. It's real-time, multipoint temperature feedback system ensures sustained target temperatures and enables the precise ablation of predictable volumes of tissue.

All Radiofrequency Ablation Electrodes that are used with the Radiofrequency Generator are supplied with a set of sterile Dispersive Electrodes/ or Thermopads. Dispersive Electrodes/ Thermopads complete the electrical circuit when they are applied on the patient's body and connected to the Radiofrequency Generator. The Radiofrequency Ablation Electrode cannot be operated without the Dispersive Electrode/ Thermopad and therefore each Electrode is supplied with a Dispersive Electrode/ Thermopad which constitutes a complete set.

The StarBurst Electrodes are compatible only with RITA1500X RF Generator and vice versa.