

biOsearch[®] Bipolar Coagulation Probe



IRRIGATION
PORT

- **HYDROMER[®]** Grafted tip reduces probe sticking for more effective coagulation.
- Now longer 350 cm versions available to accommodate the new endoscopes.
- Available with plugs to fit any Bi-Polar Generator that you may currently be using.



HYDROMER[®] grafted tip
will reduce sticking to the
hemostatic plug.



- Central lumen for irrigation
- Rounded distal tip insures balanced coagulation from different angles.
- Spiral electrode pair precisely designed to further reduce probe sticking.
- Bipolar hemostasis to insure a more even burn.
- Ceramic substrate.
- Hytrel[®] tubing offers optimum tamponade and reduced kinking. Blue color enhances positive Endoscopic identification of the tip.

biosearch[®]

Bipolar Coagulation Probe

Product Number	French Size	Overall Length	Type of Bipolar Electrosurgical Generator
18-8023	7 Fr / 2.3 mm	300 cm	1
18-8033	10 Fr / 3.3 mm	300 cm	1
18-8023L	7 Fr / 2.3 mm	350 cm	1
18-8033L	10 Fr / 3.3 mm	350 cm	1
18-8023A	7 Fr / 2.3 mm	300 cm	2
18-8033A	10 Fr / 3.3 mm	300 cm	2
18-8023AL	7 Fr / 2.3 mm	350 cm	2
18-8033AL	10 Fr / 3.3 mm	350 cm	2

1: Valley Lab[®]
Everest Medical BiCoag[™]

2: Bicap[®], Bicap II
Bard[®], Microvasive[®]

Please specify generator and plug type upon placing order.

biosearch[®]

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The Medical Innovator[™]

Visit us on the internet: <http://biosearch.com/>

BIOSEARCH BIPOLAR COAGULATION PROBES

(HYDROMER[®] GRAFTED HYDROPHILIC LUBRICANT ON TIP TO REDUCE PROBE STICKING)

The **Biosearch[®] Bipolar Coagulation Probe** was designed to alleviate "Sticking", a chronic complication encountered with other Bipolar Electro-Coagulation probes. Until now it was not unusual for probes to stick to the coagulated site, only to cause re-bleeding once the probe is withdrawn with the clot stuck to the tip.

We addressed this problem by coating our probe tips with HYDROMER, a hydrophilic polymer coating that becomes lubricous when hydrated with water. After the bleeding site has been cauterized, water is injected through the Biosearch Coagulation probe, causing the Hydromer to become lubricous, thus reducing "Sticking". Biosearch has been using Hydromer for over 15 years on other medical devices with great success.

The **Biosearch Bipolar Coagulation Probe** combines a HYDROMER non-stick Hydrophilic coating plus a spiral electrode pair design on a ceramic substrate to greatly reduce probe sticking to the hemostatic plug. Our blue Polyester tubing offers optimum tamponed, reduced kinking and positive identification of the tip during the procedure. In addition, we feature a central lumen for irrigation of the site and a rounded distal tip for balanced coagulation from different angles.

BIPOLAR COAGULATION PROBE

The use of heat for cauterization of bleeding wounds dates back to ancient times. However, in the present century, the use of radio frequency (RF) electric current traveling through a portion of the body has been widely used to stop bleeding. This type of energy is preferred because its frequency is above what could cause neuro-muscular stimulation. Cauterization of the tissue arises by virtue of its resistivity to RF energy. In the cauterization of blood, the proteins are heated to a temperature at which the proteins congeal. The methods most commonly used for treating bleeding lesions in the GI tract involve Injection Therapy, Laser, heater probes, monopolar, and bipolar coagulation units. In the last three examples, the probes are attached to an electro-surgical unit and passed through the biopsy channel of the endoscope.

While **Injection Therapy** with the use of drugs such as absolute ethanol is the simplest and most inexpensive method, drawbacks such as significant tissue injury and the lack of an irrigation system make it the unattractive to some physicians.

The **Laser technique** uses laser energy focused on tissue through fiber optic bundles in a non-contact manner. Because it does not make direct contact with the tissue, there is no sticking involved which is a major advantage. However, because each tissue absorbs the laser energy differently, precise control during treatment is difficult. Some other major drawbacks are cost (in some cases over \$100,000.00), the technical skill required to use them, and the lack of portability of most systems.

The **Heater Probe** transfers energy to tissue by thermal conduction. The energy is diffused at a relatively low temperature, thereby limiting the potential for acute tissue erosion. However, in most cases, the heater probe is expensive because it is NOT a disposable unit, is only adaptable to its own generator, and is limited to the amount of endoscopes it is compatible with.

The **monopolar probe** delivers electrical current to tissue close to the probe tip, which then passes through the body to a ground plate located on the patients skin. With this method, the greatest heat is generated close to the probe tip. However if contact is not maintained during current delivery, sparking, in some cases producing up to several thousand degrees Celsius can take place - thus causing immediate tissue abatement. Because of its ability to cause damage to both the target area and tissue not intended to be treated - plus the difficulty of regulating depth, these units are losing popularity.

In **bipolar coagulation**, the two active electrodes are closely placed and are so small that the current path is confined to a local region of the tissue. The potential for deep tissue injury is reduced, however a larger number of applications may be needed to stop bleeding. In most cases they are disposable, thus costing less and are adaptable to most bipolar (not monopolar) generators. Hence, bipolar electro-surgical treatment of tissue is a much safer than monopolar and more practical than the Heater Probe and the Laser.