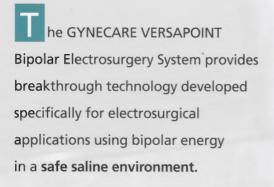
Bipolar Electrosurgery System



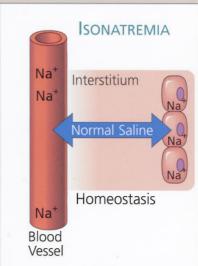
Advanced technology

for bipolar hysteroscopic electrosurgery in saline

## TECHNOLOGICAL ADVANCEMENTS FOR BIPOLAR



The GYNECARE VERSAPOINT Bipolar Electrosurgery System enables surgeons to diagnose and treat various benign intrauterine pathology, including myomas, polyps, adhesions and septa, with a single intervention, as well as treat abnormal uterine bleeding by endometrial ablation.



#### AAGL Guidelines for Procedure Cessation

- If fluid intravasation reaches 750 mL, plan for completion of the case, impending excessive intravasation
- If fluid intravasation reaches
  - 1500 mL of a nonelectrolyte solution
  - 2500 mL of normal saline

conclude case, assess electrolytes, consider diuretic administration, and initiate interventions as indicated

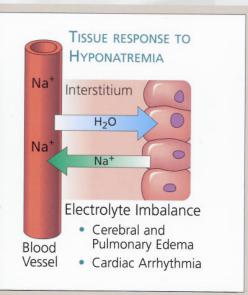
REFERENCE: Loffer FD, Bradley LD, Brill AI, Brooks PG, Copper JM. Hysteroscopic fluid monitoring guidelines from the Ad Hoc Committee on Hysteroscopic Fluid Guidelines of the American Association of Gynecologic Laparoscopists. *J Am Assoc Gynecol Laparoscopists*. 2000;7:167-168.

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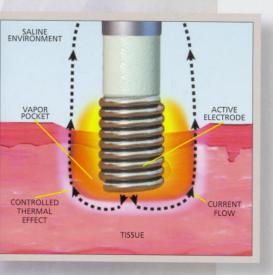
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## Electrosurgery

#### WHY SALINE IS USED



# HOW THE GYNECARE VERSAPOINT SYSTEM WORKS



## REDUCING THE POTENTIAL FOR HYPONATREMIA<sup>1</sup>

Normal electrolyte balance may be disrupted during hysteroscopic surgery when non-isonatremic solutions, such as sorbitol, glycine, etc., are used. Intravascular absorption of these solutions may cause hyponatremia. The tissue reaction to hyponatremia can result in cerebral and pulmonary edema cardic arrhythmia. Normal saline contains physiologic levels of sodium and, therefore, does not disrupt homeostasis.

## CONTROLLED, PREDICTABLE TISSUE EFFECTS

Energy is delivered from the generator to the tissue through the active electrode. In the vaporization mode, the generator controls the creation of a "vapor pocket," or steam bubble, which upon contact with tissue causes instantaneous cellular rupture characteristic of vaporization.

The energy then seeks the path of least resistance—through the saline distention media, to the return electrode and back to the GYNECARE VERSAPOINT Bipolar Generator.

Davis JA, Miller CD. Fluid infusion during hysteroscopic surgery. In: Lewis BV, Magos AL, eds. *Endometrial Ablation*. London, UK: Churchill Livingstone; 1993:41-56.

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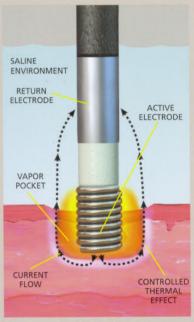
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GYNECARE VERSAPOINT BIPOLAR GENER

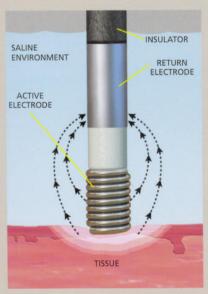
### CTRODES

## MECHANISM OF VAPORIZATION



In the vaporization mode, the generator controls the creation of a "vapor pocket," or steam bubble, which upon contact with tissue causes instantaneous cellular rupture characteristic of vaporization.

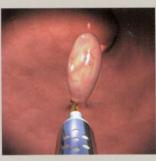
# MECHANISM OF DESICCATION



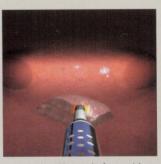
Saline acts as a "safety valve," automatically returning electrosurgical current to prevent over-treatment or carbonization. The bipolar energy flows to tissue, thereby dehydrating cells, causing hemostasis.

# Innovative Electrodes Maximize Tissue Effects

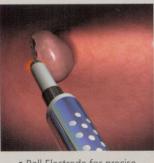
Innovative electrode designs, including Ball, Twizzle and Spring configurations, deliver bipolar energy through 5 Fr. instrument channels to vaporize, cut and desiccate tissue. Each electrode provides a range of tissue effects to give you the surgical technique options you require.



 Twizzle Electrode for vaporization and needle-like cutting



 Spring Electrode for rapid tissue vaporization and desiccation



 Ball Electrode for precise tissue vaporization and desiccation

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## BIPOLAR RESECTOSCOPIC SYSTEM



#### Features:

#### **Bipolar Loop Resecting** Electrode

Loop configuration for tissue resecting and cutting

#### Bipolar 0° Vaporizing Electrode

Instantaneous tissue vaporization eliminates resection chips

Color-coded and keyed connectors expedite selection and automatically preset specific generator settings

Quick disconnect and connect locking system for fast hysteroscope changes

Accessible and visible outflow and inflow valve levers

Smooth lever-spring mechanism ensures positive electrode control

Swivel thumb-ring permits multi-directional use for greater electrode control and maneuverability

Hysteroscope with a small 4 mm bore size is available • 30°—WA (Wide Angle) • 12°

Ergonomic, reusable handpiece quickly accepts all configurations of GYNECARE VERSAPOINT Bipolar Hysteroscopic and Resectoscopic Electrodes

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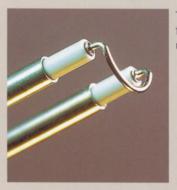
### GYNECARE VERSAPOINT Bipolar 0° Vaporizing Electrode



Uniquely designed active electrode configuration provides instantaneous tissue vaporization and desiccation.



### **GYNECARE VERSAPOINT Bipolar Loop Resecting Electrode**



The Bipolar Loop Resecting Electrode is ideally designed for resecting benign pathologies or treating abnormal uterine bleeding by endometrial ablation.



### **GYNECARE VERSAPOINT 5 Fr. Bipolar Electrodes**



Hysteroscopic Bridge allows use of GYNECARE VERSAPOINT 5 Fr. Bipolar Electrodes.







Spring

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## BIPOLAR GENERATOR

The GYNECARE VERSAPOINT Bipolar System represents a significant advance in bipolar electrosurgical technology to perform rapid and controlled tissue effects such as vaporization, desiccation and cutting.

#### Features:

User adjustable audio signals and graphic alerts assist the operator through the proper use of the generator



Mode Selection



Fault Indicator



GYNECARE VERSAPOINT technology brings a level of performance that combines the most desirable elements from the two conventional output modalities of bipolar and monopolar electrosurgery in specific system configurations for advanced bipolar hysteroscopic surgery. The GYNECARE VERSAPOINT Bipolar System provides a form of electrosurgery specifically developed for endoscopic applications in **saline**.

It appears and performs like a monopolar device, provides laser-like tissue vaporization, yet retains all of the inherent safety features of bipolar electrosurgery. External case design eliminates cooling vents to reduce danger of liquid and debris ingress and allows for easier cleaning of unit

Easy to read 16 digit alpha-numeric display is visible at a distance or in dim lighting

Integrated membrane display and control panel for easy use and cleaning

### Bipolar Electrosurgical Technology

Dedicated Bipolar Generator No stray current through the patient's body

Reusable Handpiece Cost effective

Disposable Electrode Expedites in situ changes, prevents cross contamination

Rapid Set-up Electronic "Smart Electrodes" Automatically adjust power

to default settings Electroluminescent Display

Six Modes of Operation for Maximum Versatility Vapor Cut 1, 2, 3; Blend 1, 2; Desiccate

Clear and easy to read

An audible signal will sound whenever

Menu-driven programming provides an easy-to-read electroluminescent display for quick-reference prompts.



INSERT ELECTRODE



Electrodes are color-coded for quick identification and "keyed" to automatically cue the computerized generator to select the ideal power output setting required. This proprietary feature facilitates rapid set-up and quick, easy electrode exchanges.



The back of the GYNECARE VERSAPOINT Bipolar Generator reveals a solid-state heat sink that provides continuous cooling of the unit.



Two-pedal foot switch with stable, non-slip feet.

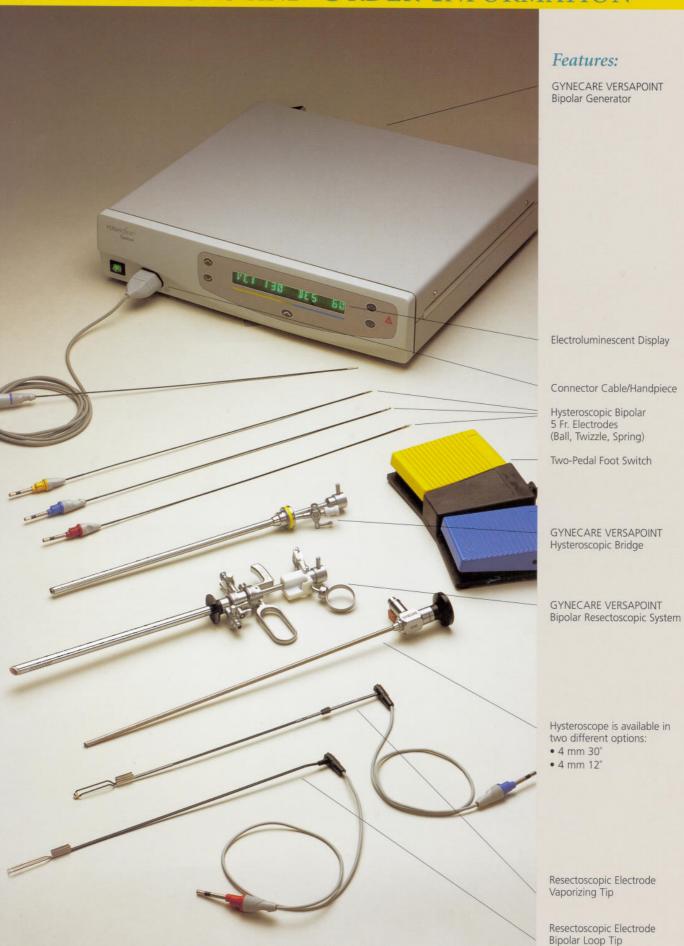
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GENERATOR

## Specifications and Order Information



## GYNECARE VERSAPOINT 5 Fr. BIPOLAR HYSTEROSCOPIC ELECTRODES

5 Fr. (1.6 mm) 360 mm Working Length:

Color Electrode Power Output Configurations: Dimensions: Codes: Default Settings:

 Ball 1.0 mm Diameter (spherical) Yellow VC1 50 DES 24 Twizzle 0.6 mm Diameter x 3.0 mm long VC1 100 DES 50 Red Spring 1.2 mm Diameter x 1.6 mm long Blue VC1 130 DES 60

### GYNECARE VERSAPOINT BIPOLAR RESECTOSCOPIC SYSTEM

#### Hysteroscope

• 30° WA 4.0 mm rod lens STORZ mount

 12° STD 4.0 mm rod lens STORZ mount <sup>1</sup>Recommended

Outer Sheath Diameter: 27 Fr. (9 mm) Inner Sheath Diameter: 24 Fr. (8 mm)

Working Length: 200 mm Working Element: Passive

Hysteroscopic Bridge: 5 Fr Working Channel Resectoscopic Electrodes

Dimensions:

Width Diameter

0° Vaporizina 4.0 mm

Bipolar Loop Resecting 4.0 mm 2.5 mm

Color Codes:

0° Vaporizing Blue Bipolar Loop Resecting Red Electrode Power Output Default Settings:

0° Vaporizing VC1 170 DES 80 Bipolar Loop Resecting VC1 170 DES 80

### GYNECARE VERSAPOINT BIPOLAR GENERATOR

5-200 watts Output Power Range: Output Frequency Range: 340-450 kHz

Input Power Requirements: 115 Volts RMS or 240 Volts RMS, 50/60 Hz

Order Information

PRODUCT CODE DESCRIPTION

GYNECARE VERSAPOINT 5 Fr. Bipolar Hysteroscopic Electrodes

00466 Ball Tip Electrode - 5 pk 00467 Twizzle Tip Electrode - 5 pk 00468 Spring Tip Electrode - 5 pk

GYNECARE VERSAPOINT Bipolar Resectoscopic System

01950 Bipolar Electrode, Resectoscopic - Vaporizing Tip (0°) - 5 pk 01985 Bipolar Electrode, Resectoscopic – Angled-Loop Tip – 5 pk

01931 Resectoscope Working Element - Passive 01932 Resectoscope Inner Sheath- 24 Fr.

01933 Resectoscope Outer Sheath (Standard) - 27 Fr. 01939 Resectoscope Outer Sheath (Rotatable) - 27 Fr.

01934 Resectoscope Obturator - Standard

01735 Hysteroscopic Bridge (Obturator - Visual) - 5 Fr.

01938 Hysteroscope 4.0 mm 12° 01936 Hysteroscope 4.0 mm 30°

GYNECARE VERSAPOINT Bipolar Generator

00482 GYNECARE VERSAPOINT Bipolar Generator

00481 Foot Switch

00480 Connector Cable (Handpiece) 04995 Universal Power Cord

For additional product information, contact your Gynecare sales representative, or to place an order, call 1-800-255-2500.

Visit our web site at www.gynecare.com for more information about other Gynecare innovations in women's health care.

### GYNECARE VERSAPOINT\* Bipolar Electrosurgery System

#### INDICATIONS

The GYNECARE VERSAPOINT Bipolar Resectoscope is used to permit direct viewing and access to the uterine cavity for the purposes of performing hysteroscopic surgical procedures. The

- indications for use include:
   Removal of submucous fibroids
- Removal of polyps
- Transection of intrauterine adhesions

Transection of intrauterine septa

· uterine bleeding or menses

recent uterine perforation
intolerance to anesthesia

The GYNECARE VERSAPOINT Bipolar Electrodes are indicated for use in tissue cutting, removal, and desiccation as required or encountered in gynecologic hysteroscopic electrosurgical procedures for the treatment of intrauterine myomas, polyps, adhesions, and septa and benign conditions requiring endometrial ablation.

#### CONTRAINDICATIONS

The GYNECARE VERSAPOINT Bipolar System is contraindicated for non-hysteroscopic surgical procedures. The GYNECARE VERSAPOINT Bipolar System is contraindicated where hysteroscopic procedures are contraindicated. This includes, but is not limited to the following:

- · invasive carcinoma of the cervix
- cervical stenosis

- cervical or vaginal infection
   medical core inability to adequately distend the intrauterine cavity medical contraindications

The GYNECARE VERSAPOINT Bipolar System is further contraindicated in patients with the following conditions: cervical or uterine malignancy, acute pelvic inflammatory disease, and unad-dressed adnexal pathology. The GYNECARE VERSAPOINT Bipolar System is contraindicated for use in tubal sterilization procedures. Endometrial ablation by electrosurgical means should not be undertaken without adequate training and clinical experience. Additionally, endometrial biopsy should be performed prior to any endometrial ablation procedure. The GYNECARE VERSAPOINT Bipolar Electrodes are contraindicated where hysteroscopic bipolar electrosurgical procedures in normal saline solution are contraindicated. The GYNECARE VERSAPOINT Bipolar Electrodes are contraindicated in any non-hysteroscopic surgical procedure and in procedures where normal saline solution is not used as an irrigation and distention medium. The use of this device is contraindicated in patients with the following conditions: acute cervicitis, pregnancy, cervical or uterine malignancy, acute pelvic inflammatory disease, and unaddressed adnexal pathology. The GYNECARE VERSAPOINT Bipolar Electrodes are contraindicated for use in tubal sterilization procedures.

Contraindications to Hysteroscopic Myomectomy:

Hysteroscopic myomectomy should not be undertaken without adequate training and clinical experience. The following are clinical conditions that can significantly complicate hysteroscopic myomectomy:

- Severe anemia
- · Inability to circumnavigate a myoma due to size (e.g., predominantly intramural myomas with small submucous components)

- For hysteroscopic procedures, be alert to these potential hazards:

   Failure to follow all applicable instructions may result in serious surgical consequences.

   Before attempting any hysteroscopic procedures, the physician should be trained in the
- principles of hysteroscopic surgery including patient selection, surgical techniques, current medical literature, management of complications and hazards of hysteroscopy and electrosurgery in that procedure
- · These hazards may include such things as perforation, hemorrhage, fluid overload and gas
- When hysteroscopic instruments and accessories from different manufacturers are employed together in a procedure, verify compatibility prior to initiation of the procedure.
   A thorough understanding of the principles and techniques involved in hysteroscopic and
- electrosurgical procedures is essential to avoid shock and burn hazards to both patient and medical personnel and damage to the device and other medical instruments. Ensure that insulation or grounding is not compromised. Do not immerse electrosurgical instruments in
- liquid unless specifically designed and labeled to be immersed.

  Refer to the GYNECARE VERSAPOINT Bipolar Electrosurgery System User Manual indications and instructions to ensure all safety precautions
- · Potential complications of Continuous Flow Hysteroscopy using saline as a distention medium include:
- Hyponatremia
- Cerebral edema
- Pulmonary edema Hypothermia
- Uterine perforation resulting in possible injury to bowel, bladder, major blood vessels, and ureter
- · Suspicion of pregnancy should suggest a pregnancy test prior to the performance of hysteroscopy
- · Ultrasonography before hysteroscopy may aid in identifying clinical conditions which could influence decisions regarding patient management.

  Explosion Hazard: The following substances will contribute to increased fire and explosion
- hazards in the operating room: flammable substances (such as alcohol-based skin prepping agents and tinctures), flammable anesthetics, naturally occurring flammable gases which may accumulate in body cavities such as the bowel, oxygen enriched atmospheres, oxidizing
- agents such as nitrous oxide  $(N_2O)$  atmospheres. Electric Shock Hazard: Do not connect wet accessories to the generator.
- · Fire/Explosion Hazard: Do not place active accessories near or in contact with flammable materials (such as gauze or surgical drapes). Electrosurgical accessories, which are activated or hot from use, can cause a fire.
- The accessory tip may remain hot enough to cause burns after the electrosurgical current is deactivated.
- · Inadvertent activation or movement of the electrode outside the field of vision may result in
- Localized burns to the patient or physician may result from electrosurgical current carried through other instruments and conductive objects. Electrosurgical current may be generated in conductive objects by direct contact with the active electrode or by the active or return electrode being in close proximity to a conductive object.
- · The entire bipolar electrode tip assembly must always be kept immersed in the conductive normal saline irrigation solution to ensure proper performance and avoid excessive heating of the electrode.

Do not activate the generator when the active electrode is not in contact with tissue or excessive heating of the irrigation medium may result and patient injury could occur.

#### WARNINGS APPLICABLE TO AIR/GAS EMBOLI HAZARDS

- Gas Bubbles are a normal by-product of electrosurgical procedures performed in liquids.
   When bubbles occur in the uterus, care should be taken to manage the removal of air/gas bubbles to minimize the inherent risk of emboli. Bubbles produced during tissue vaporization may interrupt surgery by temporarily interfering with vision and may also result in electrode over heating causing damage to the electrode tip. A continuous flow fluid management system is recommended to prevent accumulation of bubbles and continuously remove bubbles from the operative field
- · Surgeons should consider the anticipated length of surgery and size of leiomyomata when selecting patients for procedures.
- Surgeon should consider the selection of electrodes prior to initiating procedures. The
- electrodes should be matched to the size and type of pathology.

  Operating room personnel must be trained to purge air from fluid lines prior to surgery, avoid entry of air into fluid lines and turn off pumps during bag changes, and to provide
- constant, careful attention to fluid deficits. Avoid situations where the fluid bag runs dry.

  Basic equipment must be available to fulfill the requirements for monitoring of fluid deficit, assessment and control of intrauterine pressure and anesthesia monitoring. Intrauterine pressure should be maintained as low as possible so as to allow adequate distension and minimize forces potentially driving air and gas into circulation.
- Surgical team must have access to appropriate resuscitative capabilities
- Patients should be kept flat or in reverse Trendelenberg position.
   If room air or gas embolism is suspected, surgeon should consider interrupting surgery, deflating the uterus and removing sources of fluid and gas until the diagnosis and a management plan are clarified.
- Surgeon should avoid entry of air into uterus by:
- Carefully purging air from fluid in-flow lines and hysteroscopic devices prior to use.
   Following cervical dilatation, care should be taken to minimize the exposure of the open cervix to room air.
- Keeping the cervical os occluded during surgery as much as possible once it is dilated.
   Using active fluid out-flow to effectively flush the uterus of bubbles and debris.
   Using a Y-connector on the fluid in-flow line in order to reduce air entrainment during bag
- changes.
  Initially selecting the appropriate electrode, to avoid further cervical dilatation and insertion of larger instruments after initiation of the procedure.

  Minimizing the frequency of removal and reinsertion of hysteroscopic devices.

- Nitrous oxide anesthesia may enlarge the size of air bubbles, and thus should be avoided when possible in operative hysteroscopy.
- Patients at high risk for room air and gas embolism should be managed using controlled
- For high risk patients undergoing operative hysteroscopy one should consider intra-operative monitoring, such as end-tidal CO2 monitoring if under general anesthesia, and pre-cordial Doppler monitoring to detect room air and gas emboli early.

#### PRECAUTIONS

- · Care should be taken to avoid perforation of the uterus. Do not force the electrode into tissue while extending the electrode. Never activate the electrode during extension
- Do not bury the electrode tip in tissue beyond the junction of the active electrode and the ceramic insulator. Burying of the electrode tip, as described above, may result in product damage during use
- Do not use the electrode tip to probe or manipulate tissue. Forceful contact between electrode tip and tissue or other instruments may result in damage to the instrument.
- The electrode must be used in a longitudinal (forward/backward) motion. DO NOT use the electrode in a side-to-side "sweeping" motion or electrode damage may ensue.
   If excessive heating or physical forces cause damage to the Electrode tip, foreign body
- fragments may result, possibly requiring extended surgery for removal.

  Ultrasonography before hysteroscopy may aid in identifying clinical conditions which could
- Intrauterine distention can usually be accomplished with pressures in the range of 35-75 mmHg. Unless systemic blood pressure is excessive, it is seldom necessary to use pressures greater than 75-80mmHg.
- Factors such as uterine pretreatment and mean arterial pressure will have an effect on fluid distention pressure. It is important to use the minimum fluid pressure necessary to achieve adequate distention for good visualization and allow safe surgery.

- Contact of heated Electrode tip with tissues not intended for electrosurgical treatment may result in tissue injury
- · Extended surgery may be required for removal of foreign body fragments if damage to the electrode tip is caused by excessive heating for physical forces.

  Reported adverse effects include uterine perforation, hemorrhage, fluid overload and gas
- embolization. Carefully insert and withdraw the bipolar electrode tip assembly from the resectoscope inner sheath to avoid the possibility of damage to the devices and/or injury to
- · Only operate the device in the uterine cavity with continuous flow irrigation to ensure good
- visualization as well as cooling the accessory tip during use.

   When using a fluid distention medium, strict fluid intake and output monitoring is required. Excessive intravasation of distention fluid can lead to fluid overload.

  • Use only normal saline (sodium chloride (0.9% w/v; 150mMol/l) irrigation solution.
- The performance of the system will be adversely affected by use of any other solution.
- Fluid monitoring is required even when normal saline is used as a hysteroscopic distention and irrigation medium.

