PLASMA VAPORIZATION
New Plasma-OvalButton – Efficient, Versatile, and Safe

+21%
TISSUE VAPORIZATION^{1,2}
Plasma Vaporization – the Next Generation

Plasma vaporization provides a safe, easy-to-use solution for TUR tissue-management procedural needs with only a fraction of the costs of laser treatments. The Olympus Plasma system provides an optimized interaction between the Plasma vaporization electrodes and the high-frequency (HF) generator so that instant plasma ignition and stable plasma vaporization are guaranteed for the smooth vaporization of prostatic tissue.

Clinical Advantages of the Plasma Vaporization Technique

Safety
- Reduced risk of TUR syndrome compared to M-TURP
- 64% less obturator nerve stimulation compared to M-TURP
- 27% fewer severe complications compared to TURP
- 82% lower blood transfusion rate compared to M-TURP
- 83% fewer readmissions compared to TURP

Time-Efficient
- Significantly shorter hospital stay compared to TURP
- Shorter catheterization time compared to TURP
- Potential for day surgery due to a shorter catheterization period and hospital stay

Risk Patients
- Use has been demonstrated in patients on anticoagulants

Cost-Efficient
- A fraction of the material cost of photoselective vaporization (PVP)
- Costs 21% lower compared to M-TURP

Easy Handling
- Short learning curve – just as simple as standard resection
- Continuous plasma activation and instant ignition
- Clear and unobstructed view throughout the operation as neither tissue nor laser impulses impair vision

Plasma – Controlled and Stable Energy with Minimal Thermal Damage

While most energy-based surgical products, such as lasers and monopolar electrosurgical devices, use heat-driven processes to remove or cut tissue, the Plasma vaporization technology creates a controlled, stable plasma field to remove tissue at a low relative temperature, resulting in minimal thermal damage to surrounding soft tissues and a low penetration depth of energy.

Heat-Damage Zone of Plasma Vaporization vs. PVP Laser 180 W (192 vs. 562 μm)

Deeper heat-damage zones may lead to post-operative complications like increased dysuria rates.
PLASMA VAPORIZATION

What Is Plasma?
Plasma is one of the four fundamental states of matter and is created by applying energy to a gas. Molecules are ionized, thus turning the gas into plasma. Due to its conductivity, the plasma allows the energy to cross at lower energy levels. This effect leads to low operating temperatures and, therefore, less thermal spread. Tissue is vaporized in a locally confined denaturation process, while surrounding tissue heating effects are minor. It appears yellow due to the sodium that is dissolved in the saline – not due to heat or burning features.

Study Abstracts of Plasma Vaporization
“...The final postoperative aspect revealed a large prostatic fossa and a particularly smooth surface and sharp margins of the vaporization area, without irregularities or obstruction.”
“...We determined reduced capsular perforation and intraoperative bleeding rates for this technique.”
“...Plasma vaporization occurs by direct gentle contact with the tissue surface and performs concomitant hemostasis.”

Ordering Information

Plasma Vaporization Electrodes

<table>
<thead>
<tr>
<th>Order Nr.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA22566S</td>
<td>Plasma-OvalButton</td>
</tr>
<tr>
<td>WA22541S</td>
<td>Plasma-OvalButton-Long</td>
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<tr>
<td>WA22557C</td>
<td>PlasmaButton</td>
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Further Plasma Electrodes

<table>
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<td>WA22301D</td>
<td>PlasmaLoop, 12°, small</td>
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<tr>
<td>WA22305D</td>
<td>PlasmaLoop, 30°, small</td>
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</tbody>
</table>

For a detailed list of electrodes, see our Urology catalog

Specifications, design, and accessories are subject to change without any notice or obligation on the part of the manufacturer.

1 Olympus internal lab testing; data on file
2 Compared to existing Olympus vaporization electrode
3 Approved by FDA
7 The TURis system for transurethral resection of the prostate, in: NICE medical technology guidance 23 (2015). Economic analysis done on TURis resection electrodes.
12 Compared to the PlasmaButton