Ureteral Stents

A broad portfolio to meet patients’ and physicians’ needs and preferences
Because all stents are not created equal.

In the world of urology and helping patients maintain drainage, all stents are not created equal. Because each patient and ureteroscopy case is unique, you can’t rely on one stent to solve all challenges. Boston Scientific offers a broad portfolio of firm, soft and dual-durometer stents designed to accommodate your patient’s unique anatomy, clinical presentation and tolerance. Boston Scientific stents have been developed from more than 35 years of clinical research in partnership with urologists just like you – urologists who best understand the characteristics that help advance the quality of patient care, from the routine to the most complex of cases. When you choose Boston Scientific, you can count on a stent portfolio backed by insightful evidence and innovative solutions that will help you solve common challenges related to ureteral stent procedures.

So, while our portfolio offers stents that are intentionally not created equal, our goal is to ensure you equal confidence, no matter which stent you choose – confidence that we have a stent for you, no matter the patient, no matter the case.
Most of our stents are biocompatible for up to 365 days and feature proprietary materials and coating, such as:

**HydroPlus™ Hydrophilic Coating**
- Absorbs water to provide a low-friction smooth surface that facilitates advancement and may help reduce superficial damage to the epithelium.

**Percuflex™ Material Construction**
- Designed to soften at body temperature and conform to the ureter.
- Helps reduce potential for stent migration due to the high coil retention strength.
- Promotes optimal drainage with a thin wall design, large inner lumen and multiple side drainage holes.
- Made of biocompatible material for up to 365-day indwell.
- Provides durable material strength.

**Designed for Excellent Drainage**
- Low profile and large inner lumen are attainable due to the high tensile strength of the Percuflex Material.
- The 5F version is designed to increase drainage and may be passed over a .038” guidewire.

Images not drawn to scale.
The clinical difference

**Tria**™ Ureteral Stent
Unlike any other.

**Polaris**™ Loop Ureteral Stent
Proprietary loop design. Less bladder irritation.\(^7\)

**Polaris**™ Ultra Ureteral Stent
Firm where it needs to be. Soft where it matters.

**Percuflex**™ Plus Ureteral Stent
Firm enough to place under difficult conditions.\(^3,8\)

**Percuflex**™ Ureteral Stent
A stent designed for migration resistance.

**Contour**™ and **Contour VL**™ Ureteral Stents
The soft stent designed to conform.

**Contour**™ Injection Ureteral Stent Set
The stent platform that shows you the way.

**Stretch**™ VL Flexima Ureteral Stent
When you need one size to fit all.

**Percuflex**™ Urinary Diversion Stent Set
The stent set designed for optimal drainage.

**Retromax**™ Plus Endopyelotomy Stent
A stent designed to facilitate healing.\(^6\)
Tria™ Ureteral Stent

Unlike any other.

When it comes to ureteral stents, urine calcium (Ca) and magnesium (Mg) salt deposits can contribute to stent complications such as encrustation. The cause and rate of encrustation is multifactorial and can include factors such as body chemistry and medical condition of the patient, stent indwell time, and surface material or properties of the stent. The Tria Stent is the only commercially available stent that may help control the accumulation of both Mg and Ca salts. As a matter of fact, in a bench study, the Tria Stent showed up to 60% less accumulation compared to Bard Inlay Optima® Ureteral Stent, depending on urine characteristics. This is due, in part, to PercuShield™ technology on the inner and outer surfaces that are embedded, designed to provide protection against salt accumulation. The Tria Stent is designed to be stiffer during placement to navigate patient anatomy while softening by over 40% at body temperature, which may promote greater patient tolerability. And, with no contraindications to potentially treat more patients, the Tria Ureteral Stent is a truly unique stent – unlike any other.

**Multiple Sizes**

Available in 4.8F – 8F with lengths ranging from 10cm – 30cm

**Indwell Time**

Up to 365 days

**Compared to a competitive stent, Tria has lower Mg and Ca salt accumulation:**

- **Tria Soft**
  - 19% – 60%
- **Tria Firm**
  - 41% – 59%

**Key Features**

- **No contraindications** so you can potentially treat more patients
- **Tri-layer design** encapsulates raw colorant and radiopacity material
- **Inner PercuShield surface**
- **Colorant and radiopacifier encapsulated by the PercuShield layers**
- **Outer PercuShield surface**
- **Softens by >40%** at body temperature, which is designed to promote greater patient tolerability
- **A large inner lumen** and thin outer wall design promotes drainage

**Tri-layer design** encapsulates raw colorant and radiopacity material

**No contraindications** so you can potentially treat more patients

**Stiff during placement** designed to navigate patient anatomy

**PercuShield technology** designed to provide protection against salt accumulation during indwell

**Multiple Sizes**

| Available in 4.8F – 8F with lengths ranging from 10cm – 30cm | Up to 365 days |

**Indwell Time**
Polaris™ Loop Ureteral Stent

Proprietary loop design. Less bladder irritation.7

You never want to be thrown for a loop; however, the Polaris Loop Ureteral Stent may be the exception. This dual-durometer stent features two unique bladder loops that result in an average of 69% less material in your patient’s bladder than a traditional stent.1,4 Ideally, that means less bladder irritation.7 The stent is also designed to deliver optimal drainage, giving you confidence in the stent’s performance during indwell.

- Tapered tip designed for atraumatic access
- Graduated circumferential markings to confirm placement
- HydroPlus™ Coating to facilitate advancement up the ureter1,4
- Distinct 2.1F bladder loops offer an average of 69% less material than a traditional coil and may help bladder irritation1,4,7

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 5F – 8F</td>
<td>Up to 365 days²</td>
</tr>
<tr>
<td>with lengths ranging from 10cm – 30cm</td>
<td></td>
</tr>
</tbody>
</table>
Polaris™ Ultra Ureteral Stent

Firm where it needs to be. Soft where it matters.

Every patient wants the least bladder irritation possible with their ureteral stent. We developed the Polaris Ultra Ureteral Stent that features a distinct soft Nautilus™ Bladder Coil specifically designed to minimize bladder irritation. Its proprietary co-extrusion technology allows the stent to be firm in the kidney and soft in the bladder – creating a seamless transition from firm to soft so you can promote patient tolerance. These unique features combined with a tapered renal tip also may help with ease of stent placement and removal.

- Graduated circumferential markings to confirm placement
- HydroPlus™ Coating to facilitate advancement up the ureter
- Renal coil with tapered tip designed for ease of placement and removal through the ureteral orifice
- Product name and size to enable quick identification of stent
- Soft Nautilus Bladder Coil designed to potentially reduce bladder irritation

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 5F – 8F with lengths ranging from 10cm – 30cm</td>
<td>Up to 365 days ²</td>
</tr>
</tbody>
</table>
Percuflex™ Plus Ureteral Stent

Firm enough to place under difficult conditions.\textsuperscript{3,8}

Tortuous anatomy? Tight strictures? Look no further than the Percuflex Plus Ureteral Stent to help you navigate a challenging tortuous anatomy.\textsuperscript{1,3,8} Its firm material and smooth hydrophilic surface may help with placement, and its high retention coil aids in the maintenance of the stent’s double pigtail shape to prevent stent migration.\textsuperscript{3,4} The Percuflex Plus Stent is designed for patients with challenging conditions and procedures where you need to control placement.\textsuperscript{1,3,8}

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 4.8F – 8F with lengths ranging from 10cm – 30cm</td>
<td>Up to 365 days\textsuperscript{2}</td>
</tr>
</tbody>
</table>
Percuflex™ Ureteral Stent

A stent designed for migration resistance.

With the firm Percuflex Ureteral Stent, you can be confident in your stent placement.¹³,⁸ This firm stent has clear bladder markings and a tapered tip that are designed for ease of placement, and its high-retention coil strength helps to maintain its pigtail shape, thus reducing the chance of stent migration.³⁴

- **Tapered tip** designed for atraumatic access
- **Markings** to aid in placement
- Product name and size to enable quick identification of stent

Excellent radiopacity for visualization.

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 4.8F – 8F</td>
<td>Up to 365 days²</td>
</tr>
<tr>
<td>with lengths ranging from 20cm – 30cm</td>
<td></td>
</tr>
</tbody>
</table>
Contour™ and Contour VL™ Ureteral Stents

The soft stent designed to conform.

What sets Contour and Contour VL Ureteral Stents apart? These stents are made of soft Percuflex™ material that softens even further at body temperature, designed to conform to the shape of the ureter. This unique material may promote patient tolerance, and its variable coil length leaves no room for questions – one stent can accommodate various ureteral lengths.

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed length stents available in 6F – 8F with lengths ranging from 20cm – 30cm</td>
<td>Up to 365 days²</td>
</tr>
<tr>
<td>Variable length stents available in 4.8F – 7F with lengths of 22cm – 30cm</td>
<td></td>
</tr>
</tbody>
</table>
Contour™ Injection Ureteral Stent Set

The stent platform that shows you the way.

Increasing your visualization provides you with improved control. That’s why we designed the Contour Injection Ureteral Stent Set that gives you the ability to deliver contrast to improve visualization under fluoroscopy. This complete set includes an injection positioner and release sleeve with injection hub, packaged with a Contour Ureteral Stent. This unique stent is made of soft Percuflex™ material that softens even further at body temperature, designed to conform to the shape of the ureter and promote patient tolerance.

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed length stents available in 4.8F – 7F with lengths ranging from 20cm – 30cm</td>
<td>Up to 365 days²</td>
</tr>
<tr>
<td>Variable length stents available in 4.8F – 7F with lengths of 22cm – 30cm</td>
<td></td>
</tr>
</tbody>
</table>
Stretch™ VL Flexima Ureteral Stent

When you need one size to fit all.

For physicians who want more versatility from a firm ureteral stent, the Stretch VL Flexima Ureteral Stent has variable length coils to accommodate different ureteral sizes.6,19 Its variable lengths also allow for streamlined inventory management and fewer product codes.6,20 Because, sometimes, one size does actually fit all.

- Graduated circumferential markings designed to facilitate placement
- HydroPlus™ Coating to facilitate advancement up the ureter3,4
- Variable length coils allow for one stent to accommodate various ureteral lengths6,19
- Tapered tip designed for atraumatic access

One size fits all
Fewer product codes.
Less hassle.

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in 4.8F – 7F with variable lengths of 22cm – 30cm</td>
<td>Up to 90 days21</td>
</tr>
</tbody>
</table>
Percuflex™ Urinary Diversion Stent Set

The stent set designed for optimal drainage.

Sometimes you need to ensure optimal urinary system drainage from the patient’s body. Intended for use following urinary diversion procedures, the Percuflex Urinary Diversion Stent Set is the perfect solution. The single renal coil is designed to securely hold the stent in position while the straight stent body is designed with a thin wall to facilitate external drainage. The set contains two stents, guidewire, catheter adaptors and a drainage bag connector, so you can be confident you have everything you need when optimal drainage is a must.

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offered in both closed and open tip configuration</td>
<td>Up to 90 days</td>
</tr>
<tr>
<td>Available in 6F – 8F with length of 80cm</td>
<td></td>
</tr>
</tbody>
</table>
The question most patients ask before any procedure: What will my recovery look like? The Retromax Plus Endopyelotomy Stent is designed to deliver optimal drainage and aid in the patient’s healing process. It has a thin wall to help maintain an open and unblocked ureter, designed to promote drainage after endopyelotomy. Visualization is also easier, as the stent is radiopaque. Its smooth, tapered tip is designed to help you place the stent more accurately in the ureteral orifice. Overall, Retromax Plus is the stent to turn to in order to help facilitate the healing process.

- **Smaller 7F distal diameter**
- **Radiopaque for visualization**
- **Larger 14F proximal diameter facilitates ureteral healing post-endopyelotomy**
- **Tapered tip designed for atraumatic access**

<table>
<thead>
<tr>
<th>Multiple Sizes</th>
<th>Indwell Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in lengths ranging from 22cm – 30cm</td>
<td>Up to 365 days²</td>
</tr>
</tbody>
</table>
What happens when ureteral stents are forgotten?

13 OUT OF 100 ureteral stents will be forgotten.\(^\text{22}\)

~10 OF 13 (76%) stents may become encrusted within 6 months.\(^\text{11}\)
This can result in increased risk of infection and obstruction.\(^\text{23}\)

Requiring an average of 2 PROCEDURES for stent removal.\(^\text{11}\)

Direct your patients to mykidneystone.com to enhance his/her knowledge and engagement about kidney stone removal, including post-operative ureteral stent expectations.

2. Biocompatible material designed for up to a 365-day indwelling time. Where long-term use is indicated, it is recommended that indwelling time for stent (with retrieval line removed) not exceed 365 days. This stent should be evaluated by the physician on or before 90 days post-placement.


13. Study methodology: Testing was performed by an independent third-party using the in-vitro BEST™ method to evaluate salt adhesion of the ureteral stents. A total of 30 samples from each ureteral stent family were tested in both a sterile Artificial Urine Model and a Bacterial Infection Model (n=15 in each model) for 2 weeks. Proteus mirabilis was used as the microbial challenge in the Bacterial Infection Model due to its known urease production and involvement in struvite formation.

14. Reduction in stent durometer represents the average percent drop in stent durometer from 25°C to 37°C in air.


21. Biocompatible material designed for up to a 90-day indwelling time.


Caution: U.S. Federal law restricts these devices to sale by or on the order of a physician.

CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labeling supplied with each device. Information for use only in countries with applicable health authority registrations. Material not intended for use in France. Products shown for INFORMATION purposes only and may not be approved or for sale in certain countries. Please check availability with your local sales representative or customer service.

All images are the property of Boston Scientific. All trademarks are the property of their respective owners.