## **Resonance Metallic Ureteral Stent Set**

Used for temporary stenting of the ureter in adult patients with extrinsic ureteral obstruction. This stent is intended for one-time use.

Order Number	Reference Part Number	Fr	Length cm	
Stent and Positioning System				
G21311	RMS-060012-R	6	12	
G21312	RMS-060014-R	6	14	
G21313	RMS-060016-R	6	16	
G21314	RMS-060018-R	6	18	
G34108	RMS-060020-R	6	20	
G34109	RMS-060022-R	6	22	
G34110	RMS-060024-R	6	24	
G34111	RMS-060026-R	6	26	
G34112	RMS-060028-R	6	28	
G34176	RMS-060030-R	6	30	

Some products or part numbers may not be available in all markets. Contact your local Cook representative or Customer Support & Delivery for details. Please see product risk information in the IFU at cookmedical.eu.



Nonclinical testing has demonstrated that the Resonance stent is MR Conditional. **MR** Refer to the product's IFU for more information.

- 1. López-Huertas HL, Polcari AJ, Acosta-Miranda A, et al. Metallic ureteral stents: a cost-effective method of managing benign upper tract obstruction. J Endourol. 2010;24(3):483-485.
- 2. Polcari AJ, Hugen CM, López-Huertas HL, et al. Cost analysis and clinical applicability of the Resonance Metallic Ureteral Stent. Expert Rev Pharmacoecon Outcomes Res. 2010;10(1):11-15.
- 3. Rao MV, Polcari AJ, Turk TM. Updates on the use of ureteral stents: focus on the Resonance stent. Med Devices (Auckl). 2011;4:11-15.
- 4. Borin JF, Melamud O, Clayman RV. Initial experience with full-length metal stent to relieve malignant ureteral obstruction. J Endourol. 2006;20(5):300-304.
- 5. Taylor ER, Benson AD, Schwartz BF. Cost analysis of metallic ureteral stents with 12 months of follow-up. J Endourol. 2012;26(7):917-921.
- 6. Kadlec AO, Ellimoottil CS, Greco KA, et al. Five-year experience with metallic stents for chronic ureteral obstruction. J Urol. 013;190(3):937-941.
- 7. Christman MS, L'Esperance JO, Choe CH, et al. Analysis of ureteral stent compression force and its role inmalignant obstruction. J Urol. 2009;181(1):392-396.

#### **Customer Service**

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CC, URO-A4

# Patency **under pressure**





Used for temporary stenting of the ureter in adult patients with extrinsic ureteral obstruction, the Resonance Metallic Ureteral Stent is specifically designed to mitigate the problems encountered with traditional plastic ureteral stents and other forms of treatment. Its tightly wound coil maintains patency so urine can drain continuously under extrinsic (malignant and benign) ureteral compression.

The optimised compressive and radial strength of the Resonance stent, and its resistance to encrustation,<sup>1,3</sup> allow the stent to remain indwelling for up to 12 months.

#### **Resist compression**

The Resonance provides radial strength without compromising longitudinal flexibility. In vitro testing found that the Resonance stent is more resistant to external compression than traditional polymer stents.<sup>2</sup>

#### **Resist encrustation**

The Resonance is more resistant to encrustation than traditional polymer stents, which may result in longer indwelling times and may reduce the number of exchange procedures needed.<sup>1,3,7</sup>

# **Unique stent performance characteristics**

### **Compression testing**



# Compression testing shows the Resonance stent compresses less than the plastic stents tested.\*

\*Reference document number: VAL05-0058-REPORT (Rev 2) (2019). Testing was conducted on four different plastic stents manufactured by Cook Medical: Sof-Flex Double-Pigtail Stent, Cook Double-Pigtail Graduated Stent, Black Silicone Filiform Double-Pigtail Ureteral Stent, and Cook Double-Pigtail Stent.

## **Comparative flow study**



#### A comparative flow study shows the Resonance stent has superior flow rates to the plastic stents studied under comparable extrinsic compression testing conditions.\*\*\*

\*\*Newtons

\*\*\*Reference document number: RWP1106 (2006). Testing was conducted on 6 Fr ureteral stents from different manufacturers: Cook Medical Resonance® Metallic Ureteral Stent, Boston Scientific Percuflex® Ureteral Stent (Competitor A), and Bard InLay® Ureteral Stent (Competitor B), respectively.

# The stent's unique coil construction allows urine to flow even in instances of compression.<sup>4, 5</sup>

- The stent is made of a cobalt-chromium-nickel-molybdenum alloy (MP35N).
- 2 An internal wire (also made from MP35N) extends the full length of the stent and joins the stent at either extremity. This wire prevents the elastic elongation of the stent; prevention of stent elongation is particularly important during stent removal.
- 3 The tightly wound coil design helps maintain continuous drainage by allowing urine to flow in and out of the coils.
- A stent positioner and clear sheath provide enhanced visualisation and reference points for first and second pigtail deployment.

The stent may be placed using either an antegrade or retrograde technique–introduced coaxially through the sheath and removed using standard cystoscopic techniques.





### **Cost savings**

The Resonance stent has a maximum indwelling time of 12 months, which reduces the need for frequent stent changes. **As a result, the Resonance stent may be a cost-effective option for treating chronic patients.** Fewer stent exchanges may be required for the Resonance compared to standard plastic ureteral stents, which means it may be less costly to treat patients using the Resonance.<sup>1,6</sup>