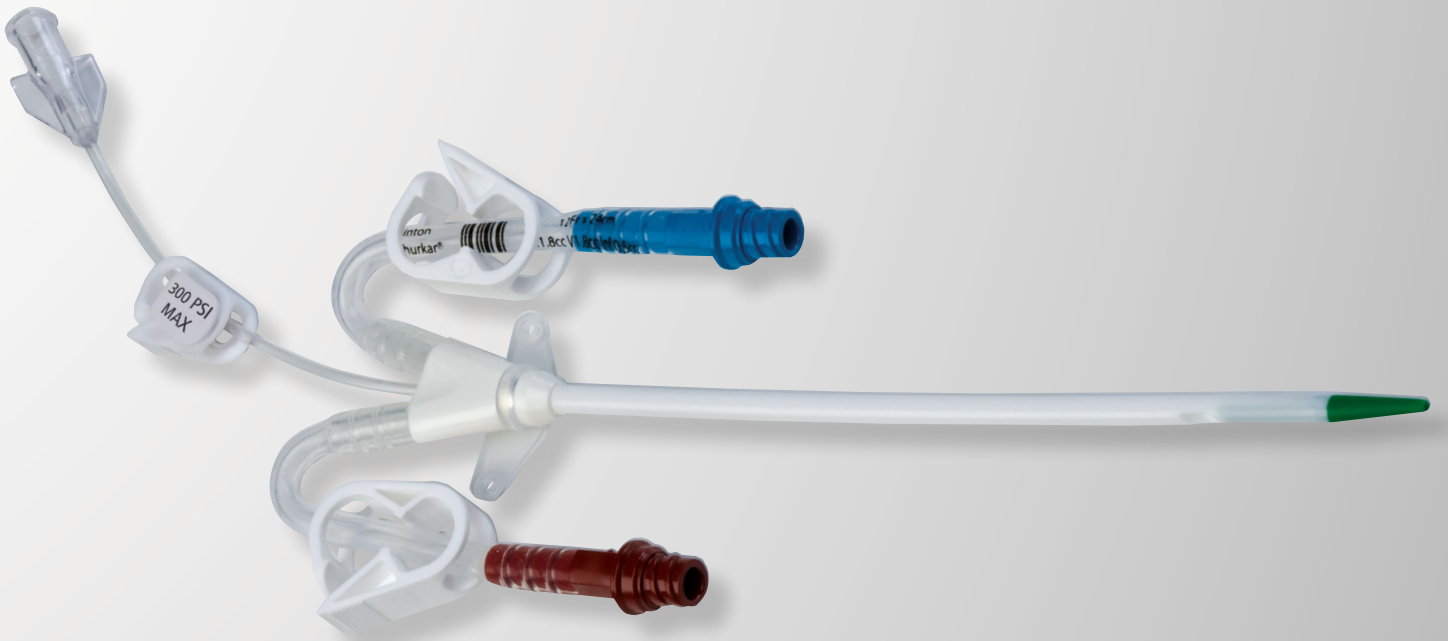




DIALYSIS  
IS CRITICAL.  
**CONFIDENCE  
IS ESSENTIAL.**

MAHURKAR™\* family  
of acute care catheters

**Medtronic**  
Further, Together



# INNOVATION. QUALITY. OPTIONS.

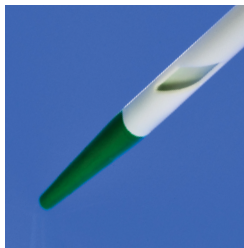
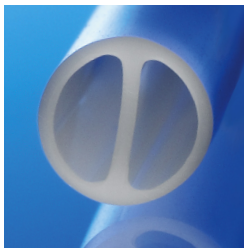
Innovative features to optimize patient benefits. That's what our MAHURKAR™ family of catheters provides in acute dialysis care.

**Throughout our 30-year history, we've offered a full spectrum of acute care catheters for use in:**

- Hemodialysis
- Apheresis
- Infusion
- High-pressure contrast injection
- Central venous pressure monitoring

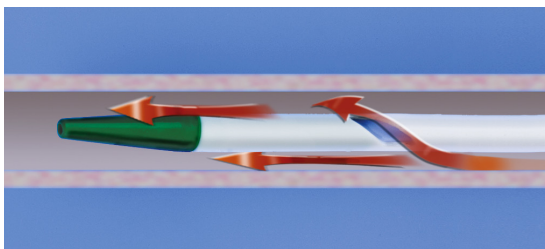
**Features that provide exceptional performance:**

- The Double-D™ lumen design maximizes internal diameter to provide consistent and equal flow rates.<sup>1</sup>
- Ease of insertion and patient comfort — Thermosensitive material provides optimal stiffness during insertion and softens up to 50 percent after insertion for vessel conformity and patient comfort. The conical tip facilitates smooth transition through tissue.<sup>2</sup>
- Adapters and extensions — Durable Ultem™ adapters and silicone extensions withstand repeated use<sup>3</sup>



**Features that may help reduce patient complications:**

Large, laser-cut side slots wrap around catheter shaft providing a large open area for fluid to flow.



# MAHURKAR™\* 12Fr

## high-pressure triple lumen catheter

### Modified Double-D™ design maximizes area for high-flow rates in dialysis lumens<sup>1</sup>:

- Third lumen (19G) facilitates infusion of fluid, blood products, and medication or blood sampling
- Preserves patient vascular access and avoids the need for PICC line placements in CKD patients — in accordance with NKF-KDOQI guidelines<sup>4</sup>
- Soft, green, atraumatic tip is designed to reduce the likelihood of vessel trauma
- Facilitates continuous renal replacement therapies
- Reinforced hub minimizes kinking in difficult vasculature

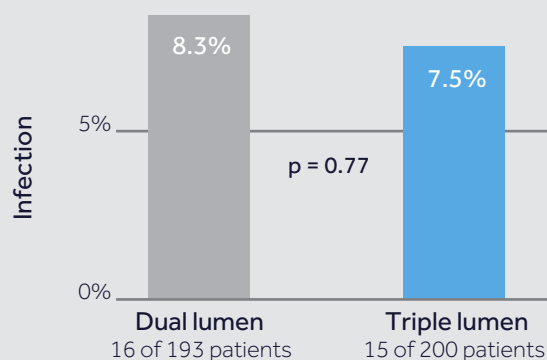


## Clinically proven

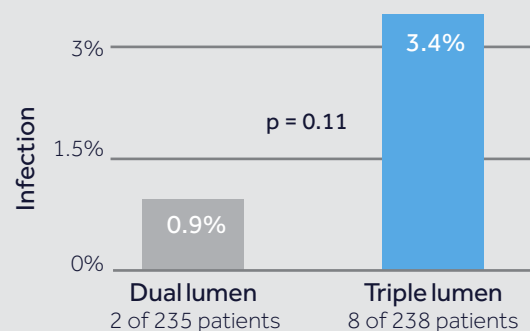
### In two multicenter, randomized clinical studies comparing the MAHURKAR™\* double lumen and the triple lumen catheters demonstrated:

- No increased incidence of catheter-related bloodstream infection<sup>5</sup>
- No significant difference in incidence of exit-site infections<sup>6</sup>

Catheter-related blood stream infection comparison<sup>5</sup>



Exit-site infection comparison<sup>6</sup>



## MAHURKAR™\* 13.5Fr high-flow catheter

### This optimal high-flow catheter:

- Consistently achieves flow rates up to 450 mL/min<sup>1</sup> in benchtop testing
- Soft, green, atraumatic tip designed to reduce the likelihood of vessel trauma
- Facilitates continuous renal replacement therapies
- Offers a reinforced hub designed to minimize kinking in difficult vasculature
- Is radiopaque to facilitate visualization



## MAHURKAR™\* 11.5Fr original short-term catheter

### Features Include:

- Minimum French size (11.5Fr) coupled with Double-D™\* lumen design to achieve consistent flow rates up to 350 mL/min in benchtop testing
- Conical tip for smooth insertion
- Precurved options available



# ORDERING INFORMATION

## MAHURKAR™ 11.5, 10, or 8Fr dual lumen catheters

	STRAIGHT EXTENSIONS	CURVED EXTENSIONS	PRECURVED SHAFTS	DESCRIPTION	QTY/ CASE
CATHETERS	8813816005	8813816009		11.5 Fr x 13.5 cm	5
	8830414001	8830414002		11.5 Fr x 16 cm	5
	8813794005	8813794009		11.5 Fr x 19.5 cm	5
	8831662001			11.5 Fr x 24 cm	5
	8817142005			10 Fr x 12 cm	5
KITS	8817145005			10 Fr x 15 cm	5
	8813817005	8813817009		11.5 Fr x 13.5 cm	5
	8830415001	8830415003	8888115162	11.5 Fr x 16 cm	5
	8813793009	8813793013		11.5 Fr x 19.5 cm	5
	8831661001			11.5 Fr x 24 cm	5
		8817143005		10 Fr x 12 cm	5
	8817146001	8817146007		10 Fr x 15 cm	5
	8832539001			8 Fr x 9 cm	5
	8832539002	8832539006		8 Fr x 12 cm	5
	8832539003	8832539007		8 Fr x 15 cm	5
IC TRAYS	8817277007	8817277011		11.5 Fr x 13.5 cm	5
	8830416001	8830416003		11.5 Fr x 16 cm	5
	8815668007	8815668011		11.5 Fr x 19.5 cm	5
PASS TRAYS	8831663001	8831663002		11.5 Fr x 24 cm	5
	8817277027			11.5 Fr x 13.5 cm	1
	8830416021	8830416023		11.5 Fr x 16 cm	1
	8815668027	8815668021		11.5 Fr x 19.5 cm	1
	8831663021		11.5 Fr x 24 cm	1	

## MAHURKAR™ 13.5Fr high-flow dual lumen catheters

	STRAIGHT EXTENSIONS	CURVED EXTENSIONS	PRECURVED SHAFTS	DESCRIPTION	QTY/ CASE
KITS	8888135131	8888135132	8888135133	13.5 Fr x 13.5 cm	5
	8888135161	8888135162	8888135163	13.5 Fr x 16 cm	5
	8888135191	8888135192	8888135193	13.5 Fr x 19.5 cm	5
	8888135241	8888135242	8888135243	13.5 Fr x 24 cm	5
	8888135134	8888135135	8888135136	13.5 Fr x 13.5 cm	5
IC TRAYS	8888135164	8888135165	8888135166	13.5 Fr x 16 cm	5
	8888135194	8888135195	8888135196	13.5 Fr x 19.5 cm	5
	8888135244			13.5 Fr x 24 cm	5
PASS TRAYS		8888135138		13.5 Fr x 13.5 cm	1
	8888135167	8888135168	8888135140	13.5 Fr x 16 cm	1
	8888135197	8888135198	8888135141	13.5 Fr x 19.5 cm	1
	8888135247	8888135248		13.5 Fr x 24 cm	1

## MAHURKAR™ 12Fr high-pressure triple lumen catheters

	STRAIGHT EXTENSIONS	CURVED EXTENSIONS	DESCRIPTION	QTY/ CASE
KITS		8888345603HP	12 Fr x 13 cm	5
		8888345611HP	12 Fr x 16 cm	5
	8888340629HP	8888345629HP	12 Fr x 20 cm	5
	8888340637HP	8888345637HP	12 Fr x 24 cm	5
		8888101001HP	12 Fr x 13 cm	5
IC TRAYS		8888101002HP	12 Fr x 16 cm	5
	8888102003HP	8888101003HP	12 Fr x 20 cm	5
	8888102004HP	8888101004HP	12 Fr x 24 cm	5
PASS TRAYS		8888103001HP	12 Fr x 13 cm	1
		8888103002HP	12 Fr x 16 cm	1
	8888104003HP	8888103003HP	12 Fr x 20 cm	1
	8888104004HP	8888103004HP	12 Fr x 24 cm	1

To order, contact customer service at 800-962-9888

COMPONENTS	CATHETER	KITS	IC TRAYS	PASS TRAYS
Catheter	1	1	1	1
18G introducer needle		1	1	
18G safety introducer needle				1
J/straight 70 cm guidewire (0.032" — 8Fr / 0.035" — 10Fr and 12Fr/0.038" — 11.5Fr and 13.5Fr)		1	1	1
Tissue dilators (8Fr,† 10Fr, 12Fr‡, 14Fr§)		2	2	2
6 ML luer lock syringes			2	2
3 ML luer lock syringes (3 provided with 12Fr catheter only)			3	3
Hypodermic needles (18g, 22g, 25g)			3	
Magellan™ safety needles (18g, 22g, 25g)				3
2.0 Nylon suture with curved needle			1	1
5 ML ampule lidocaine (1%)			1	2
Large 72" x 76" fenestrated drape			1	1
#11 Scalpel			1	
Retractable #11 safety scalpel				1
Needle holder			1	1
Excilon™ AMD antimicrobial drain sponge				1
Pre-fill syringe 10 mL; 0.9% saline flush syringe				2
Chloraprep™ applicator wand (3 mL) (1 provided with 11.5Fr and 13.5Fr catheters)			1	2
Telfa™ island dressings		2	2	2
Gauze sponges			6	6
Sealing caps (3 provided with 12Fr)	2	2	2	2
Needle safety holder			1	1
Catheter safety insertion checklist				1
Drug label sheet				1

† Only in 8Fr and 10Fr catheters

‡ Only in 11.5 and 12Fr catheters

§ Only in 13.5Fr catheters

## MAHURKAR™ catheters feature:



Rotatable suture wings



Durable adapters



Adjustable clamps



Straight extension

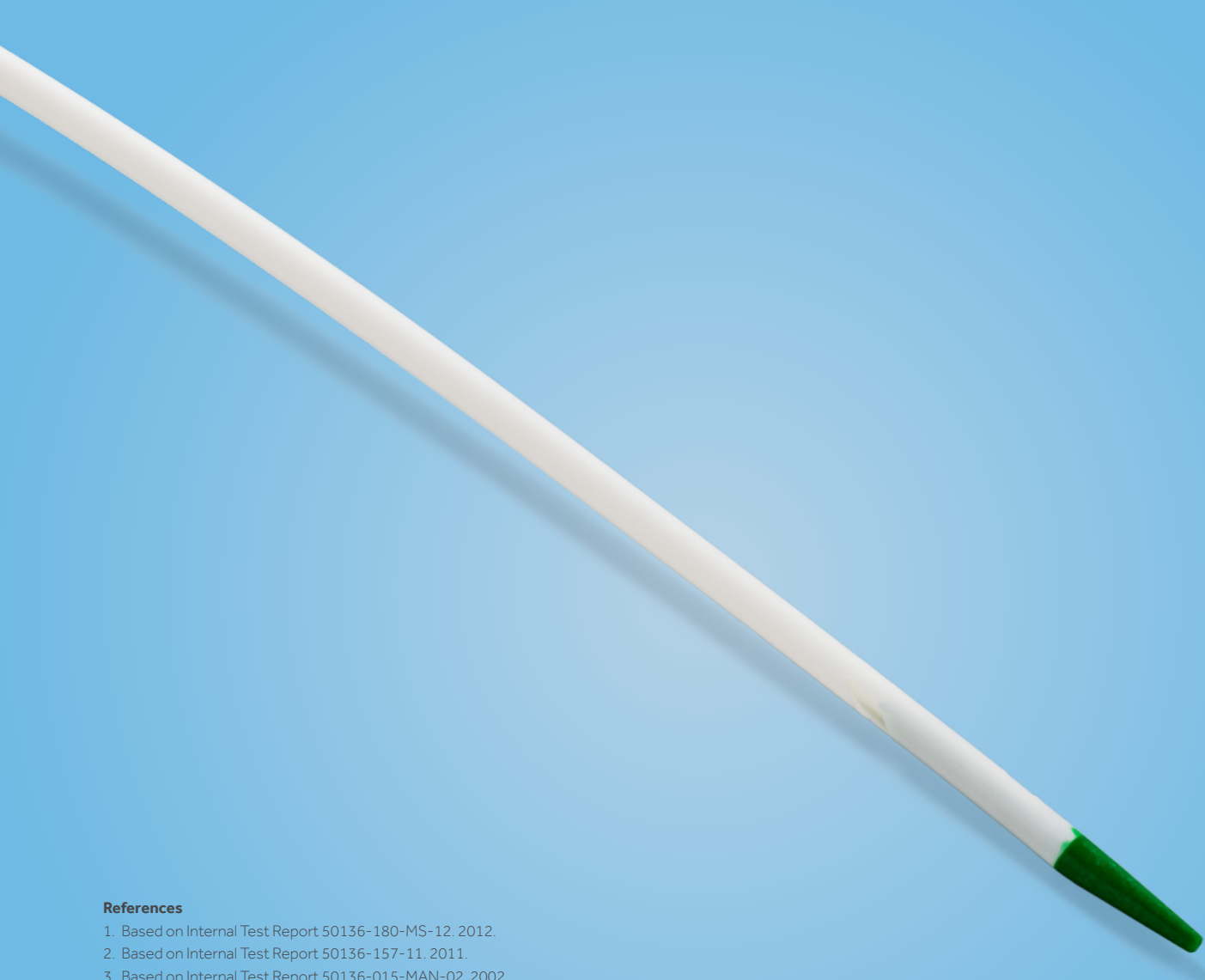


Curved extension



Precurved shaft  
Not available with triple lumen catheter

**Catheter configurations and sizes to accommodate various insertion sites and patient sizes**



#### References

1. Based on Internal Test Report 50136-180-MS-12. 2012.
2. Based on Internal Test Report 50136-157-11. 2011.
3. Based on Internal Test Report 50136-015-MAN-02. 2002.
4. National Kidney Foundation. NKF KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update. *AJKD*. 2020; 75(4):S1-S164.
5. Contreras G, Liu P-Y, Elzinga L, et al. A multicenter, prospective, randomized, comparative evaluation of dual- versus triple-lumen catheters for hemodialysis and apheresis in 485 patients. *Am J Kidney Dis*. 2003;42(2):315-324.
6. Young EJ, Contreras G, Robert NE, Vogt NJ, Courtney TM. Incidence and influencing factors associated with exit site infections in temporary catheters for hemodialysis and apheresis. *Nephrol Nursing J*. 2005;32(1):41-50.

#### **MAHURKAR™ Elite** (Acute Triple Lumen Catheter)

The MAHURKAR™ Elite triple lumen catheter is intended for short-term central venous access for hemodialysis, apheresis, infusion, central venous pressure monitoring and pressure injection of contrast media. The maximum infusion rate is 5ml/sec for power injection of contrast media.

Remove the catheter as soon as it is no longer needed and for femoral inserted catheters they should not be implanted longer than three to four days maximum per KDOQI guidelines. Do not use catheter in thrombosed vessels or for subclavian puncture when a ventilator is in use.

See the device manual for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions, and potential complications/adverse events. For further information, please call Medtronic, in the United States call 1-800-962-9888 and for international inquiries, call 508-261-8000, and/or consult Medtronic's website at [www.medtronic.com](http://www.medtronic.com)

#### **MAHURKAR™ Elite** (Acute Dual Lumen Catheter)

The MAHURKAR™ Elite dual lumen catheter is intended for short-term central venous access for hemodialysis, apheresis, and infusion.

Remove the catheter as soon as it is no longer needed and for femoral inserted catheters they should not be implanted longer than three to four days maximum per KDOQI guidelines. Do not use catheter in thrombosed vessels or for subclavian puncture when a ventilator is in use.

See the device manual for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions, and potential complications/adverse events. For further information, please call Medtronic, in the United States call 1-800-962-9888 and for international inquiries, call 508-261-8000, and/or consult Medtronic's website at [www.medtronic.com](http://www.medtronic.com)

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