



What if...

You could reliably and repeatedly **access the right internal jugular vein** and **avoid using other veins** which may compromise permanent arteriovenous access?

Surfacer
Inside-Out Access

Guided Exit

The diagram shows a human torso with the internal jugular vein highlighted in red. A thin, light-colored line representing a catheter is shown entering the vein from the neck area. A white arrow points upwards from the neck towards the heart, indicating the direction of the catheter's path. The heart is shown in a semi-transparent red and orange color, with its major vessels visible. The femoral vein is also shown in red, extending down the leg from the hip area. A white arrow points upwards from the femoral vein towards the heart, indicating the direction of the catheter's path.

Femoral
Venous Entry



A UNIQUE APPROACH

INSIDEOUT[®]

RESTORE ACCESS.[™] PRESERVE OPTIONS.

Introducing the Surfacer[®] Inside-Out[®] Access Catheter System, the proprietary Inside-Out[®] approach to restore access and preserve options.

In patients with venous occlusive disease, the current approach is to move to another vein if a subsequent central venous catheter (CVC) is needed. Failed venous access attempts may prevent permanent arteriovenous (AV) access, increasing patient morbidity and the overall cost of care.¹

To restore and preserve access in chronically occluded veins, John Gurley, M.D.² developed the Inside-Out[®] approach – allowing clinicians to change the standard of care.

Surfacer[®]
Inside-Out Access

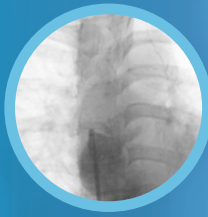


FIGURE 1
Totally occluded superior vena cava

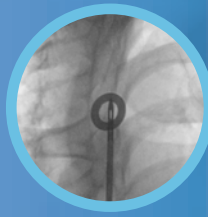


FIGURE 2
Exit target provides a zone to position the Surfacer® Device to exit the skin

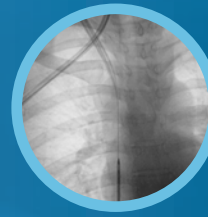


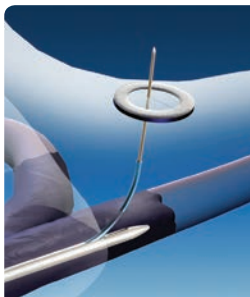
FIGURE 3
Introducer sheath locked onto needle wire and pulled into right atrium

RESTORE ACCESS



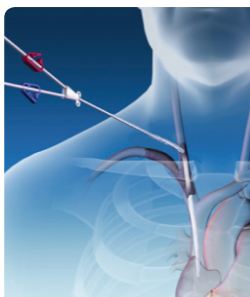
- Achieves repeatable and reliable central venous access to the right internal jugular (RIJ) vein
- Preserves the viability of secondary central veins
- Optimizes placement and maturation of permanent AV access

RELIABLE PROCEDURE



- 100% (12 of 12) of patients underwent successful central venous access placement³
- 100% (12 of 12) of patients maintained patency of central venous access through long-term follow-up visit³
- No device-related adverse events were reported within 48 hours and at 14-day follow-up visit³

REDUCE COSTS



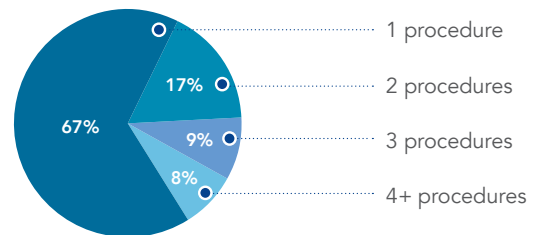
- Supports the achievement of permanent AV access which reduces hemodialysis provider cost and downtime by decreasing catheter-associated morbidity and complications¹
- Easier, minimally invasive procedure compared to surgical bypass for patients with totally occluded central veins

CLINICAL EXPERIENCE

	Fluoroscopy time (min)	Technical success	Procedural complications
Inside-Out® Central Venous Access Clinical Experience⁴ (N=116)	4.1 ± 5.3	100%	1 (0.8%) ^b
Surfacer® System FIM Study³ (N=12^a)	7.4 ± 2.8	100%	1 (8.3%) ^c

REPEATED PROCEDURES

Percentage of repeated procedure counts on the same patient. Clinical experience with the Inside-Out® procedure.⁴

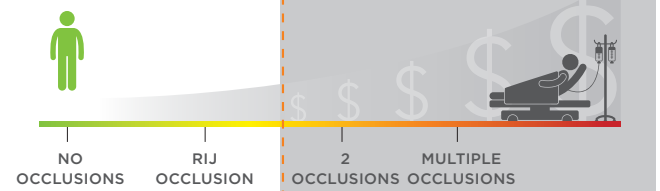


- a. All procedures completed with local anesthesia and light sedation.
- b. Pocket hematoma due to excessive oral anticoagulation.
- c. Mild hematoma at the clavicular exit due to tunneling and unrelated to the Surfacer device. Manual compression was not required.

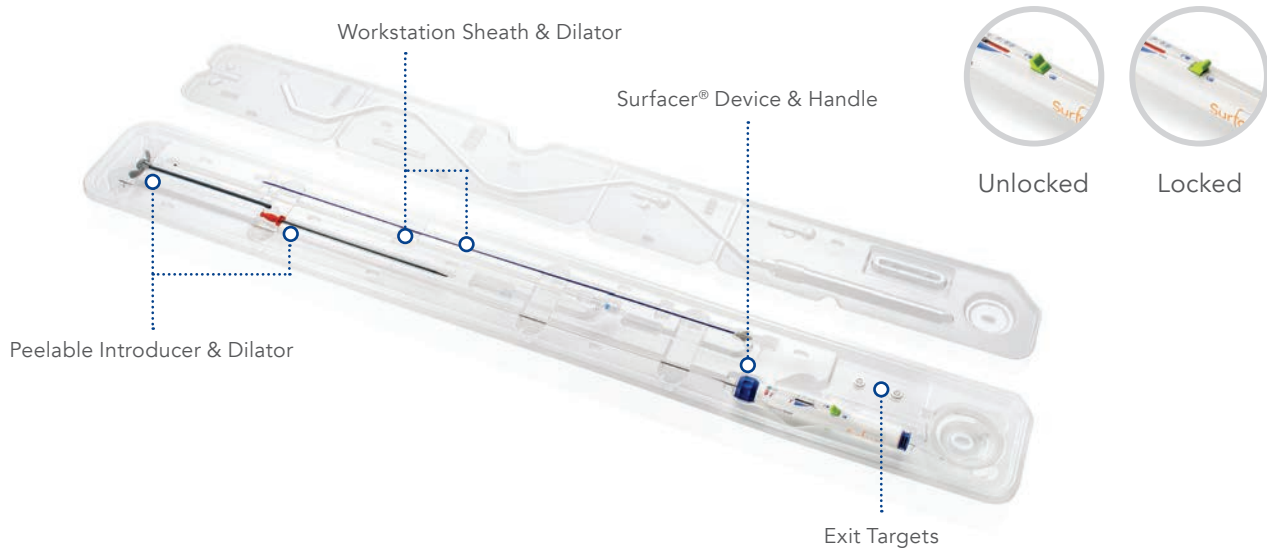
REDUCE COSTS OF CARE¹

Achieving permanent AV access with the Surfacer® System

- ▶ Stop destruction of veins
- ▶ Improve quality of life



SURFACER® SYSTEM COMPONENTS



ORDERING INFORMATION

Order Number	Description	Quantity
600200/A	Surfacer® Inside-Out® Access Catheter System (single)	1

REFERENCES

1. Data on file at Bluegrass Vascular Technologies, Inc.
2. Department of Cardiology, University of Kentucky, Lexington, KY, USA.
3. Ebner A, Gallo S, Cetraro C, Gurley J, Minarsch L. Inside-Out Upper Body Venous Access: The first-in-human experiences with a novel approach using the Surfacer Inside-Out Access Catheter System. *Endovascular Today*. June 2013.
4. John C Gurley, MD. Inside-Out Central Venous Access - Presentation (University of Kentucky May 9, 2012), Heart Rhythm Society 2012, May 9-12, Boston MA.

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Before using: Refer to **Instructions for Use** for indications, contraindications, warnings, precautions and directions for use.

SUPPLIED BY:



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