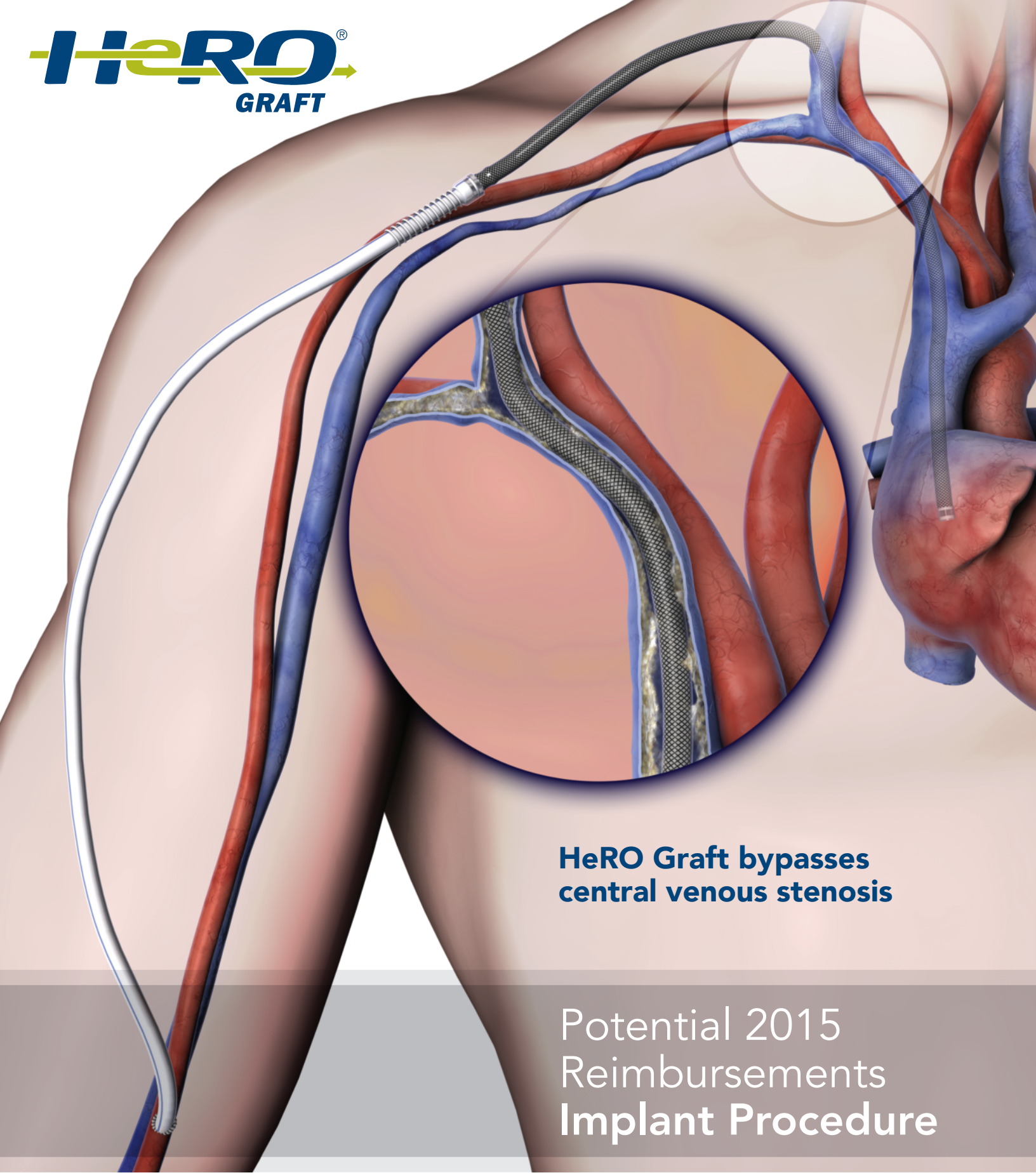
HeRO® GRAFT



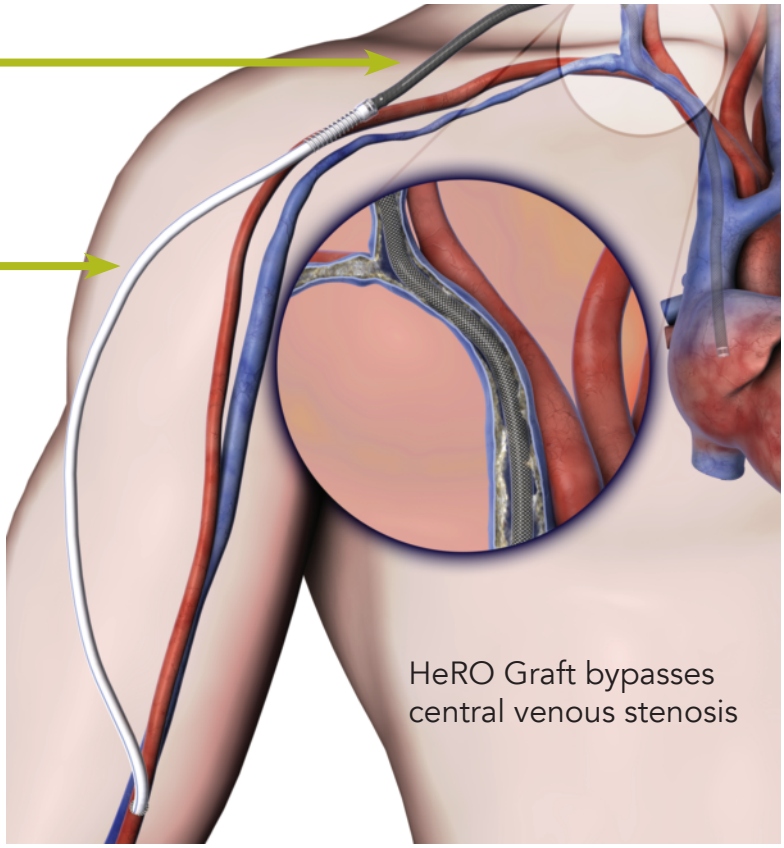
HeRO Graft bypasses central venous stenosis

Potential 2015 Reimbursements **Implant Procedure**

CryoLife®
Life Restoring Technologies®

VENOUS OUTFLOW COMPONENT
(HERO 1001);
36558* w/C 1750

ARTERIAL GRAFT COMPONENT
(HERO 1002);
36830*



HeRO (Hemodialysis Reliable Outflow) Graft is the **ONLY** fully subcutaneous AV access solution clinically proven to maintain long-term access for hemodialysis patients with central venous stenosis.

Cost Benefits

- 23% average savings per year with the HeRO Graft compared with catheters[1]
- Reduces catheter-related infections and hospital admissions projected at $23k to $56k per stay[2,3]
- Lowers interventions and associated costs by more than 50% compared to catheters[4,5]

ACCESSORY COMPONENT KIT (HERO 1003, not pictured) contains disposable tools used to facilitate placement of the Venous Outflow Component.

Component	Diameter (ID)	Length	Product Code
Venous Outflow Component	5mm	40cm (customizable)	HeRO 1001
Arterial Graft Component	6mm (ePTFE); 6mm - 5mm (connector)	53cm	HeRO 1002
Accessory Component Kit	N/A	N/A	HeRO 1003

HeRO Graft Potential Outpatient Codes (If Temporary Bridging Catheter)

CPT® Code	Abbreviated Description	Product	Procedure – To – Device Edit
36830	Creation of arteriovenous fistula by other than direct arteriovenous anastomosis	HERO 1002	None Required
36558	Insertion of tunneled centrally inserted central venous catheter	HERO 1001	C 1750 Required [Catheter, Hemodialysis, Long-Term]
36558	Insertion of tunneled centrally inserted central venous catheter	Bridging Catheter	C 1752 Required [Catheter, Hemodialysis, Short-Term]

*CPT® 36830 and 36558 should be reported together to represent complete HeRO Graft implantation.

Potential Outpatient Reimbursement Codes
APC and Physician Average Payments

Common Diagnosis Codes	
ICD-9-CM Diagnosis Code	**ICD-9-CM Diagnosis Description**
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease Stage V or end stage renal disease
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease Stage V or end stage renal disease
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease Stage V or end stage renal disease
585.5	Chronic kidney disease, Stage V
585.6	End stage renal disease
585.9	Chronic kidney disease, unspecified

Potential Outpatient Procedure Codes			Avg Payments	
CPT® Code	**APC**	**CPT® / APC Description**	**APC Payment**	**Physician Payment**
36830*	**0088**	**Creation of arteriovenous fistula by other than direct arterio-venous anastomosis (separate procedure); nonautogenous graft (eg, biological collagen, thermoplastic graft)**	$3,220	$690
36558*	**0622**	**Insertion of tunneled centrally inserted central venous catheter, without subcutaneous port or pump; age 5 years or older**	$2,235	$281
36581	0622	Replacement, complete, of a tunneled centrally inserted central venous catheter, without subcutaneous port or pump, through same venous access	$2,235	$199
36589	0121	Removal of tunneled central venous catheter, without subcutaneous port or pump	$488	$139
35460**	0083	Transluminal balloon angioplasty, open; venous	$4,537	$325
35476**	0083	Transluminal balloon angioplasty, percutaneous; venous	$4,537	$277
36005	NA	Injection procedure for extremity venography (including introduction of needle or intracatheter)	NA	$49
36147	0668	Introduction of needle and/or catheter, arteriovenous shunt created for dialysis (graft/fistula); initial access with complete radiological evaluation of dialysis access, including fluoroscopy, image documentation and report (includes access of shunt, injection[s] of contrast, and all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava)	$827	$191
36597	0621	Repositioning of previously placed central venous catheter under fluoroscopic guidance	$843	$63
75827	0668	Venography, caval, superior, with serialography, radiological supervision and interpretation	$827	$56 (-26)
75978	0093	Transluminal balloon angioplasty, venous (eg, subclavian stenosis), radiological supervision and interpretation	Packaged	$26 (-26)
76937	NA	Ultrasound guidance for vascular access requiring ultrasound evaluation of potential access sites, documentation of selected vessel patency, concurrent realtime ultrasound visualization of vascular needle entry, with permanent recording and reporting	Packaged	$15 (-26)
77001	NA	Fluoroscopic guidance for central venous access device placement, replacement (catheter only or complete), or removal (includes fluoroscopic guidance for vascular access and catheter manipulation, and necessary contrast injections through access site or catheter with related venography radiologic supervision and interpretation, and radiographic documentation of final catheter position)	Packaged	$19 (-26)
76080	0263	Radiologic examination, abscess, fistula or sinus tract study, radiological supervision and interpretation	Packaged	$26 (-26)
93930	0267	Duplex scan of upper extremity arteries or arterial bypass grafts; complete bilateral study	$190	$39 (-26)
93931	0266	Duplex scan of upper extremity arteries or arterial bypass grafts; unilateral or limited study	$135	$25 (-26)

Outpatient APC payment based on The Centers for Medicare and Medicaid Programs Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting Programs; Final Rule for Calendar Year 2015 (Federal Register, November 10, 2014). Physician payment is based on Calendar Year 2015 Medicare Physician Fee Schedule Final Rule (Federal Register, November 13, 2014), and subsequently revised based on the Pathway for SGR Reform Act of 2013. Note that payment may vary based on geographic location and other geographic-specific factors. Rates referenced in this document do not contain Sequestration which is an automatic reduction in federal spending that will result in a 2% reduction to ALL Medicare rates through March 31, 2015. While CMS is mandated by law to reduce payment by 21.2% effective April 1, 2015, it is expected that Congress will offer a solution in the short term and minimize the SGR which may impact rates for the remainder of 2015.

Modifier	Description
-26	Professional component only. *Technical fee not included.*
-51	Multiple procedure.
-52	Reduced services.
-59	Distinct procedure.

*CPT® 36830 and 36558 should be reported together to represent complete HeRO Graft implantation. Payment for 36830 is expected to be less than the full payment due to the recommended use of the -52 reduced services modifier. Payers will base payment on supporting documentation describing the actual amount of work performed. When 36558 is used in conjunction with 36830 to describe the HeRO Graft implantation, it is also subject to the multiple procedure reduction. See Potential Implant Scenario as an example.

**Code has a J1 status indicator and its use will result in the assignment of procedure to a comprehensive APC (C-APC) by Medicare. Even though it is possible that separate APC payments may be determined to be appropriate where more than one procedure is performed during the same outpatient visit, many APCs are subject to reduced payment when multiple procedures are performed on the same day. Some comprehensive APCs in 2015 package payments for items and service rather than separate multiple payments for each individual service. Comprehensive APCs will reimburse a single all-inclusive payment for the primary service with no additional reimbursement for additional adjunctive services and supplies used during the delivery of the primary procedure and applies to percutaneous interventions.

Potential Outpatient Implant Scenario

- Existing tunneled cuffed catheter removed
- HeRO Graft implanted
- Temporary bridging catheter placed in new venous site

Modifier	Description
-26	Professional component only. *Technical fee not included.*
-51	Multiple procedure.
-52	Reduced services.
-59	Distinct procedure.

CPT® Code	APC	Abbreviated Description	APC Modified Payment	Physician Modified Payment
36589	0121	Removal of tunneled central venous catheter	$244	$69 (-51)
36830*	**0088**	**Creation of arteriovenous fistula by other than direct arteriovenous anastomosis**	**$3,220**	**<$690 (-51, -52)**
36558*	**0622**	**Insertion of tunneled centrally inserted central venous catheter**	**$1,118**	**$140 (-51)**
36558	0622	Insertion of tunneled centrally inserted central venous catheter	**$1,118**	$140 (-51, -59)
76937	NA	Ultrasound guidance for vascular access	Packaged	$15 (-26)
77001	NA	Fluoroscopic guidance for central venous access device placement	Packaged	$19 (-26)

Potential Inpatient Reimbursement Codes

Diagnosis Codes

ICD-9-CM Diagnosis Code	ICD-9-CM Diagnosis Description
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease Stage V or end stage renal disease
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease Stage V or end stage renal disease
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease Stage V or end stage renal disease
585.5	Chronic kidney disease, Stage V
585.6	End stage renal disease
585.9	Chronic kidney disease, unspecified
586	Renal failure, unspecified

Procedure Codes

ICD-9-CM Diagnosis Code	ICD-9-CM Procedure Description
39.27	Arteriovenostomy for renal dialysis
38.95	Venous catheterization for renal dialysis

MS-DRG

MS-DRG	MS-DRG Description	MS-DRG Payment
673	Other kidney and urinary tract procedures w/MCC	$18,887
674	Other kidney and urinary tract procedures w/CC	$12,188
675	Other kidney and urinary tract procedures w/o CC/MCC	$7,789

The tables throughout this document list the national average Medicare payments for certain vascular access related procedures and interventions. To accurately report a vascular access related procedure or intervention, multiple code combinations may be needed. Unless otherwise noted, amounts shown represent Medicare national average payment for the full amount without any multiple procedure reduction applied. Providers should select the most appropriate HCPCS/CPT* code(s) with the highest level of detail to describe the service(s) rendered to the patient as well as the most appropriate ICD-9CM diagnosis code(s) to describe the patient's condition. Any questions should be directed to the pertinent local payer. Inpatient MS-DRG payments based on The Centers for Medicare and Medicaid Services Hospital Inpatient Prospective Payment System (IPPS) for Fiscal Year 2015, Final Rule (Federal Register, August 22, 2014). Note that payment may vary based on geographic location and other geographic specific factors.

DISCLAIMER: The information in this brochure is provided with the intent to assist in obtaining appropriate reimbursement for medical devices and services. It is NOT intended as legal advice. Seek legal counsel or a reimbursement specialist for further questions or clarifications. The provider makes all decisions concerning completion of reimbursement claim forms, including code selection and billing amounts. This document is for information purposes only and represents no statement, promise, or guarantee by CryoLife Inc. concerning levels of reimbursement, payment or charges. This coding information may include codes for procedures for which CryoLife currently offers no cleared or approved products. The coding options listed within this guide are commonly used codes and are NOT intended to be an all-inclusive list. See page 3 for further details about uses and limitations of this document.

*CPT® 36830 and 36558 should be reported together to represent complete HeRO Graft implantation.

References: 1) Dageforde et al., JSR 2012. 2) Ramanathan et al., Infect Control Hosp Epidemiol 2007. 3) O'Grady et al., The Centers for Disease Control 2002. 4) Katzman et al., J Vasc Surg 2009. 5) Gage et al., EJVES 2012.

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