Medical Policy
**Endovascular Grafts for Abdominal Aortic Aneurysms**

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- Policy: Medicare
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- Description
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**Policy Number:** 098
BCBSA Reference Number: 7.01.67

**Related Policies**
- Endovascular Stent Grafts for Thoracic Aortic Aneurysms or Dissections, #233

**Policy**
**Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity**
**Medicare HMO BlueSM and Medicare PPO BlueSM Members**

The use of endoprostheses approved by the FDA as a treatment of abdominal aortic aneurysms (AAAs) may be **MEDICALLY NECESSARY** as a treatment of AAAs in any of the following clinical situations:
- An aneurysmal diameter greater than 5.0 cm,
- An aneurysmal diameter of 4–5.0 cm that has increased in size by 0.5 cm in the last 6 months,
- An aneurysmal diameter that measures twice the size of the normal infrarenal aorta, or
- A ruptured abdominal aortic aneurysm.

The use of endoprostheses approved by the FDA as a treatment of AAAs is **INVESTIGATIONAL** when the above criteria are not met, including but not limited to the following clinical situations:
- Treatment of smaller aneurysms that do not meet the current recommended threshold for surgery
- Treatment of aneurysms that do meet the recommended threshold for surgery in patients who are ineligible for open repair due to physical limitations or other factors.

**Prior Authorization Information**
Pre-service approval is required for all inpatient services for all products.
See below for situations where prior authorization may be required or may not be required for outpatient services.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.

<table>
<thead>
<tr>
<th>Outpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
</tr>
<tr>
<td>Commercial PPO and Indemnity</td>
</tr>
<tr>
<td>Medicare HMO BlueSM</td>
</tr>
</tbody>
</table>
CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

### CPT Codes

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>34800</td>
<td>Endovascular repair of infrarenal abdominal aortic aneurysm or dissection; using aorto-aortic tube prosthesis</td>
</tr>
<tr>
<td>34802</td>
<td>Endovascular repair of infrarenal abdominal aortic aneurysm or dissection; using modular bifurcated prosthesis (one docking limb)</td>
</tr>
<tr>
<td>34803</td>
<td>Endovascular repair of infrarenal abdominal aortic aneurysm or dissection; using modular bifurcated prosthesis (two docking limbs)</td>
</tr>
<tr>
<td>34804</td>
<td>Endovascular repair of infrarenal abdominal aortic aneurysm or dissection; using unibody bifurcated prosthesis</td>
</tr>
<tr>
<td>34805</td>
<td>Endovascular repair of infrarenal abdominal aortic aneurysm or dissection; using aorto-uniliac or aorta-unifemoral prosthesis</td>
</tr>
<tr>
<td>34825</td>
<td>Placement of proximal or distal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, or dissection; initial vessel</td>
</tr>
<tr>
<td>34826</td>
<td>Placement of proximal or distal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, or dissection; each additional vessel (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td>34841</td>
<td>Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)</td>
</tr>
<tr>
<td>34842</td>
<td>Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])</td>
</tr>
<tr>
<td>34843</td>
<td>Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])</td>
</tr>
<tr>
<td>34844</td>
<td>Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])</td>
</tr>
<tr>
<td>34845</td>
<td>Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)</td>
</tr>
</tbody>
</table>
interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)

34846 Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

34847 Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

34848 Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

75952 Endovascular repair of infrarenal abdominal aortic aneurysm or dissection, radiological supervision and interpretation (report with 34800-34805)

75953 Placement of proximal or distal extension prosthesis for endovascular repair of infrarenal abdominal aortic aneurysm, radiological supervision, and interpretation (report with 34825, 34826)

**ICD-9 Procedure Codes**
When the following ICD 9 procedure codes are associated with the service(s) described in this document coverage for the service(s) is aligned with the policy statement.

<table>
<thead>
<tr>
<th>ICD-9-CM procedure codes:</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.71</td>
<td>Endovascular implantation of graft in abdominal aorta</td>
</tr>
<tr>
<td>39.78</td>
<td>Endovascular implantation of branching or fenestrated graft(s) in aorta</td>
</tr>
</tbody>
</table>

**ICD-10 Procedure Codes**

<table>
<thead>
<tr>
<th>ICD-10-PCS procedure codes:</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>04V03DZ</td>
<td>Restriction of Abdominal Aorta with Intraluminal Device, Percutaneous Approach</td>
</tr>
<tr>
<td>04U04JZ</td>
<td>Supplement Abdominal Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach</td>
</tr>
<tr>
<td>04U03JZ</td>
<td>Supplement Abdominal Aorta with Synthetic Substitute, Percutaneous Approach</td>
</tr>
<tr>
<td>04V04DZ</td>
<td>Restriction of Abdominal Aorta with Intraluminal Device, Percutaneous Endoscopic Approach</td>
</tr>
</tbody>
</table>

**Description**
Endovascular grafts are minimally invasive alternatives to open surgical repair for treatment of abdominal aortic aneurysms (AAAs). Open surgical repair of AAAs has high morbidity and mortality, and endovascular grafts have the potential to reduce the operative risk associated with AAA repair.

**Background**
Conventional management of a clinically significant AAA consists of surgical excision with placement of a sutured woven graft. Surgical excision is associated with a perioperative mortality rate of 4%, which may
rise to 10% in symptomatic patients. Due to this high mortality rate, endovascular prostheses have been investigated as a minimally invasive, catheter-based alternative to open surgical excision of AAAs. These devices are deployed across the aneurysm such that the aneurysm is effectively “excluded” from the circulation, with subsequent restoration of normal blood flow.

There are several types of grafts currently under investigation—straight grafts, in which both ends are anchored to the infrarenal aorta, and bifurcated grafts, in which the proximal end is anchored to the infrarenal aorta, and the distal ends are anchored to the iliac arteries. Recently, fenestrated grafts have also been investigated. These grafts are designed with openings in the wall that can be placed across the renal or celiac arteries while still protecting vessel patency through these critical arteries. In addition, extensions can be placed from inside the main endograft body into the visceral arteries to create a hemostatic seal.

In 1999, the U.S. Food and Drug Administration (FDA) approved two endovascular grafts for use in the abdominal aorta: the EVT Abdominal Aortic Endovascular Grafting System (Guidant Endovascular Technologies) and the AneuRx® Prosthesis System (now called AneuRx AAAdvantage Stent Graft - Medtronic Vascular Inc.). In the Guidant system, the endograft is placed in the aorta and expanded using balloon dilation. The graft is anchored to the vessel wall using sutureless hooks at its superior and inferior ends. The AneuRx system consists of a woven polyester interior surface with a self-expanding nitinol exoskeleton. The radial force of the expanding stent embeds the exoskeleton into the aneurysm wall and thus constitutes the attachment mechanism. In April 2002, FDA approved an additional Guidant device, the Ancure® Aortoliac System. The Ancure device consists of a woven polyester graft that is housed within a long flexible delivery tube (catheter) for use in patients whose anatomy is not suited for the use of the single tube or bifurcated endograft device. This version is identical to the earlier Guidant Endovascular Grafting System except that the aortoiliac Ancure grafts have suture loops on the superior and inferior attachment systems. Several other grafts have been subsequently approved, including the Gore® Excluder® (2002), the Zenith® AAA Endovascular Graft (2003 – now called Zenith Flex AAA Endovascular Graft), the Endologix Powerlink® (2004), the Medtronic Talent® Abdominal Stent Graft System (2008), the Medtronic Vascular Endurant® II AAA Stent Graft System (2010),(1) and the Aorfix™ AAA Flexible Stent Graft System (2013, Lombard Medical, PLC).(2) In 2012, the Ovation™ Abdominal Stent Graft System (TriVascular Inc.), a lower-profile stent graft that uses a postimplantation polymer deployment system to seal the device to the aorta, was approved for endovascular repair of abdominal aortic aneurysms with suitable anatomy.(3)

The Zenith® Fenestrated AAA Endovascular Graft, a graft that extends across the visceral arteries, was approved by FDA with the adjunctive Zenith Alignment Stent in April 2012. The device is approved for endovascular treatment of aortic or aortoiliac aneurysms that are suitable for endovascular repair with the following:

- “Adequate iliac/femoral access compatible with required introduction systems
- Nonaneurysmal infrarenal aortic segment (neck) proximal to the aneurysms with:
  - Diameter <31 mm and unsuitable for a nonfenestrated graft
  - Angle <45 degrees relative to long axis of aneurysm
  - Angle <45 degrees relative to axis of suprarenal aorta
- Ipsilateral iliac artery fixation site >30 mm in length and between 9 - 21 mm in diameter
- Contralateral iliac artery distal fixation site >30 mm in length and between 7 - 21 mm in diameter.”

Summary
Evidence from randomized, controlled trials (RCTs) comparing endovascular aneurysm repair (EVAR) with open repair for elective treatment of abdominal aortic aneurysms (AAAs) indicates that neither approach is clearly superior to the other. While EVAR is associated with an early reduction in morbidity and mortality, trials that report outcomes at 5 years or longer show comparable survival for EVAR compared with open repair at these longer time points. Thus, the early advantage of EVAR is balanced out by a higher rate of late complications, leading to comparable long-term outcomes between the 2 procedures. One trial of patients who were of low-to-moderate surgical risk reported that the early benefit
of EVAR was not evident in this population, raising the question of whether the early benefits of EVAR extend to patients at lower risk for open surgery. Based on these data, EVAR may be considered medically necessary as an alternative to open surgery in patients who are candidates for both procedures.

For patients with ruptured AAA, evidence from 2 RCTs suggests that short-term mortality from EVAR is comparable with open repair. Further evidence from nonrandomized, matched comparisons report that EVAR is associated with lower short-term morbidity and mortality. Based on this evidence and recommendations from specialty societies, EVAR may be considered medically necessary for treatment of ruptured aneurysms.

At least 2 RCTs have evaluated EVAR versus no surgical intervention in patients who were not eligible for open repair, either because of aneurysm size or prohibitive surgical risk. These trials do not report superior outcomes with EVAR and thus do not support use of EVAR in these patients. As a result, EVAR is considered investigational for patients who are not candidates for open surgery due to aneurysm size or prohibitive surgical risk.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>9/2014</td>
<td>Coding information clarified</td>
</tr>
<tr>
<td>6/2014</td>
<td>The 2nd policy statement was editorially revised to clarify that situations that do not meet the criteria in the 1st policy statement would be considered investigational.</td>
</tr>
<tr>
<td>5/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
</tr>
<tr>
<td>1/2014</td>
<td>Updated to add new CPT codes 34841-34848.</td>
</tr>
<tr>
<td>11/2013</td>
<td>Removed CPT codes 34812, 34825 &amp; 34826 and ICD-9 diagnosis codes 441.02 &amp; 447.72 as they do not meet the intent of the policy.</td>
</tr>
<tr>
<td>6/2013</td>
<td>New references from BCBSA National medical policy.</td>
</tr>
<tr>
<td>4/2013</td>
<td>New references from BCBSA National medical policy.</td>
</tr>
<tr>
<td>4/2010</td>
<td>Reviewed Medical Policy Group – Cardiology. No changes to policy statements.</td>
</tr>
</tbody>
</table>

**Information Pertaining to All Blue Cross Blue Shield Medical Policies**

Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

**References**