Optimizing Vascular Access Management

- Minimizing Complications
- Maximizing Hospital Efficiencies
- Improving Patient Care

Cardiva CATALYST®
Manual Compression Assist Device

VASCADE®
Vascular Closure System

Cardiva MEDICAL, INC.
VASCade® Vascular Closure System

Minimizing Complications, Improving Patient Care, and Maximizing Hospital Efficiency for Vascular Closure

VASCade is a fully integrated, extravascular, bioabsorbable vascular access closure system designed to meet the needs of permanent component behind it and have demonstrated safety and efficacy in a wide range of patients.

### Extravascular and Bioabsorbable

- Enables rapid and secure closure without intravascular anchor
- Leaves no permanent component behind
- Allows for future vascular success
- The only extravascular device to offer collagen and a dual method of action
- Mechanism: provides tamponade as a result of rapid expansion of implant in presence of fluid
- Mechanism: accelerates coagulation by leveraging natural thrombogenic property of collagen to enhance coagulation formation

VASCade Collage Plug Achieves Hemostasis Faster, Easier in Bioprosthetic Blood

Cardiva CATALYST® Manual Compression Assist Device

For Patients Needing Manual Compression, CATALYST is Designed to Improve TTH and TTA.

>50% REDUCTION in mean hold time

>20% REDUCTION in ambulation time

CATALYST is designed to provide temporary hemostasis and enhance coagulation within the tissue at the puncture site making the experience more efficient for the clinical staff and more comfortable for the patient while preserving the artery and leaving nothing behind in its path.

- Supports the body's natural healing process
- Enhances tissue integration, natural elastic recoil and completion
- Helps maintain vessel integrity

### ROOM II: Prospective, Investigator-Initiated Trial

<table>
<thead>
<tr>
<th>Diagnostic (N=203)</th>
<th>Interventional (N=203)</th>
<th>Total (N=406)</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td>TTDe (mins)</td>
<td>4.0 ± 1.8</td>
<td>4.4 ± 1.8</td>
<td>0.0001</td>
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<tr>
<td>TTA (hrs)</td>
<td>11.2 ± 23.2</td>
<td>13.9 ± 38.4</td>
<td>0.001</td>
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</table>

- Leaves nothing behind allowing for immediate re-access
- No complication rate similar to Manual Compression
- Available in two versions: CATALYST II & III
- CATALYST II is coated with silver and titanium and is promoted completion by activating the clotting cascade and causing platelet aggregation
- CATALYST III is coated with an additional drug, dopamine, sodium, acting locally to minimize ischemia and further aid the body's natural healing process.
**VASCAD® Vascular Closure System**

**Effective and Rapid Hemostasis for Interventional and Diagnostic Procedures**

- **Minimizing Complications, Improving Patient Care, and Maximizing Hospital Efficiency for Vascular Closure**
  - VASCAD® is a fully-integrated, extravascular, bioabsorbable hemostatic access closure system that is easy to use, secure, permanent component behind steel and has demonstrated safety and efficacy in a wide range of patients.

**Safe and Easy to Use**

- **Zero major complications**
- **Statistically significant reductions in minor complications**
- **Up to 4x faster to hemostasis**
- **Up to 1.5x faster to ambulation**

**Fully Integrated Design**

- **Extravascular and Bioabsorbable**
  - Allows rapid and secure closure without intravascular anchor
  - Leaves no permanent component behind

**VASCAD® Efficiency for Vascular Closure**

- **Porcine method** enables rapid and secure closure without intravascular anchor
- **Leaves no permanent component behind**

**Physiological**

- **Mechanical**
  - Allowing blood control of heparinized blood
- **Physiological**
  - **Mechanical**
    - Enhances retention of natural thrombogenic property of collagen to enhance coagulation
- **Property**
  - Enhances retention of natural thrombogenic property of collagen to enhance coagulation
- **Mechanical**
  - Enhances retention of natural thrombogenic property of collagen to enhance coagulation

**Reductions in Mean Hold Time**

- **50% reduction** in mean hold time

**Reductions in Ambulance Time**

- **20% reduction** in ambulance time

**For Patients Needing Manual Compression, Designed to Improve TTH and TTA**

- **Catalyst**
  - **Manual Compression Assist Device**
  - **Biomorph® Manual Compression Device**
  - **Compresses Distal Artery**
  - **Promotes Blood Flow**
  - **Enhances Retention**
  - **Rapid Hemostasis**

**Catalyst**

- **Catalyst II Manual Compression**
- **Catalyst III Manual Compression**
- **Catalyst IV Manual Compression**

**VASCAD® Minimizing Complications, Rapid Hemostasis**

<table>
<thead>
<tr>
<th>Group</th>
<th>Objective (N=211)</th>
<th>Objective (N=420)</th>
<th>Objective (N=209)</th>
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<tbody>
<tr>
<td>VASCAD</td>
<td>12.0%</td>
<td>11.0%</td>
<td>10.0%</td>
<td>&lt;0.0001</td>
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<tr>
<td>TTH (mins)</td>
<td>44.4</td>
<td>44.4</td>
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<tr>
<td>TTA (hrs)</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.0001</td>
</tr>
<tr>
<td>TTA (hrs)</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

**Note:**
- Study has not been submitted to a manuscript and not yet peer-reviewed for publication.
- **Catalyst** is designed to provide temporary hemostasis and enhance closure within the vascular tissue at the puncture site making the experience more efficient for the clinical staff and more comfortable for the patient while preserving the artery and leaving nothing behind in its path.
- Supports the body's natural healing process
- Enhances tissue perfusion, natural elastic recoil and coagulation
- Helps maintain vessel integrity

**RTEF**

- **Recovery Time Enhanced for**
- **Faster Hemostasis**
- **Reduction in hold time**

**TTH**

- **Timely Hemostasis**
- **Faster Hemostasis**
- **Reduction in hold time**

**TTA**

- **Timely Ambulance**
- **Faster Ambulance**
- **Reduction in ambulance time**

**TTH**

- **Timely Hemostasis**
- **Faster Hemostasis**
- **Reduction in hold time**

**TTA**

- **Timely Ambulance**
- **Faster Ambulance**
- **Reduction in ambulance time**
Founded in July 2002, CARDIVA Medical, Inc. is a privately held medical device company that is focused on developing and commercializing innovative vascular closure technologies designed to help the body heal itself.

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### ORDERING INFORMATION:

<table>
<thead>
<tr>
<th>Product</th>
<th>Model Number</th>
<th>Description</th>
<th>Order Quantity</th>
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<tbody>
<tr>
<td>VASCADE 5F VCS</td>
<td>700-500DX-05U</td>
<td>5 French</td>
<td>1 Box (5 Devices/Box)</td>
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<tr>
<td>VASCADE 6/7F VCS</td>
<td>700-580I-05U</td>
<td>6/7 French</td>
<td>1 Box (5 Devices/Box)</td>
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<tr>
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<td>500-580C-10U</td>
<td>5-7 French</td>
<td>1 Box (10 Devices/Box)</td>
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<tr>
<td>CATALYST III</td>
<td>600-580CP-10U</td>
<td>5-7 French</td>
<td>1 Box (10 Devices/Box)</td>
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</tbody>
</table>

The VASCADE® Vascular Closure System (VCS) is indicated for femoral arterial access site closure while reducing times to hemostasis and ambulation in patients who have undergone diagnostic or interventional endovascular procedures using a 5F, 6F, or 7F procedural sheath.

The VASCADE VCS is also indicated to reduce time to discharge eligibility in patients who have undergone diagnostic endovascular procedures using a 5F, 6F, or 7F procedural sheath.

The Cardiva CATALYST® II System is intended to promote hemostasis at arteriotomy sites as an adjunct to manual compression. The Cardiva CATALYST III System with Protamine Sulfate is intended to promote hemostasis at arteriotomy sites as an adjunct to manual compression in heparinized patients. The Cardiva CATALYST II & III are indicated for use in patients undergoing diagnostic and/or interventional femoral artery catheterization procedures, using 5F, 6F or 7F introducer sheaths.

Before use, physicians should review all risk information, which can be found in the “Instructions for Use.”