CERECYTE® Microcoils:

- Volume in = Volume in
- Packs and maintains volume equivalent to that of bare platinum coils
- Fast, easy detachment
- Consistent 2 second detachment cycle
- No patient grounding required
- Stretch resistance
- Increased coil security brings added confidence when creating a secure coil
- Allows repositioning of coil, when needed

Accessories:
- ENPOWER® Detachment Control Box
- ENPOWER® Control Cable

CERECYTE® Microcoils:
- Equivalent deliverability and handling characteristics as bare platinum coils
- Wide variety of spherical, complex and helical secondary shapes in various lengths and diameters

CAUTION:
Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.

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**Case 1**

**Diagnosis:** A 47-year-old female presented with a right posterior communicating artery aneurysm measuring 4 mm x 2 mm, with a 2 mm neck. This patient had a left internal carotid artery aneurysm that was previously clipped.

**Treatment:** The aneurysm was accessed and a total of three CERECYTE Microcoils were utilized: a 2 mm MICRUSPHERE® Microcoil (2.5 cm length) was deployed followed by two 2 mm ULTIPAQ® Microcoils (2 cm and 1 cm lengths).

**6-Month Follow-Up:** Angiography and 3-D reconstruction show complete occlusion of the aneurysm at 6 months.

**Case 2**

**Diagnosis:** A 45-year-old female presented with an unruptured fenestrated basilar artery aneurysm arising on the right measuring 6 mm x 6 mm, with a 1.3 mm neck. The patient has another 1.3 mm aneurysm off the left side of the fenestration that was too small to coil.

**Treatment:** The aneurysm was accessed and a total of six CERECYTE MICRUSPHERE Microcoils were utilized in a “Russian doll” technique, beginning with a 7 mm and followed by a 6 mm, a 5 mm, two 4 mm, and a 3 mm.

**12-Month Follow-Up:** Angiography shows complete occlusion at 12 months.

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**It's Inside™**

Inside each CERECYTE® Microcoil, a stretch-resistant polyglycolic acid (PGA) element is uniquely positioned within the primary wind of the coil.

**It's Responsive**

Induced tissue response* provides support for neointimal formation across the aneurysm neck with handling and packing volume equivalent to Micrus® bare platinum coils.

**It Performs**

*PGA appears to have induced tissue response. Animal studies data on file, Micrus Endovascular Corporation.

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**Glue Area**

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CERECYTE® Microcoils:
- A full line of enhanced embolic coils
  - Equivalent deliverability and handling characteristics as bare platinum coils
  - Wide variety of spherical, complex and helical secondary shapes in various lengths and diameters

- Volume in = Volume in
  - Packs and maintains volume equivalent to that of bare platinum coils
- Fast, easy detachment
  - Consistent 2 second detachment cycle
  - No patient grounding required
  - Stretch resistance
    - Increased coil security brings added confidence when crossing to target vessel
    - Allows repositioning of coil, when needed

- A full line of enhanced embolic coils
  - Equivalent deliverability and handling characteristics as bare platinum coils
  - Wide variety of spherical, complex and helical secondary shapes in various lengths and diameters

Accessories:
- ENPOWER® Detachment Control Box
- ENPOWER® Control Cable

ENHANCED EMBOLIC COILS
FOR THE TREATMENT OF CEREBRAL ANEURYSMS

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The Inside Advantage

Unlike coated coils, Micrus® CERECYTE® Microcoils feature a PGA polymer on the inside of the coil. This provides a number of key advantages:

- Coaxial polymer thread permits better coil conformability, leading to denser packing of aneurysms
- Smoother platinum metal surface lowers friction and handles like “bare platinum”
- Retention of overall platinum packing volume even after polymer absorption*

Volume In = Volume In

With an exterior coating, absorption can lead to a reduction in packing volume over time. With the PGA polymer on the inside of each CERECYTE Microcoil, dense packing can be achieved at time of packing and remains over time. At a minimum, platinum in equals platinum in.

* Data on file, Micrus Endovascular Corporation.
† Microcoils analyzed using scanning electron microscopy (SEM) at 100% magnification.
Why Compromise Packing Density with Coated Coils?

Published Studies of Matrix Coils Conclude:

Published CERECYTE® Study Concludes:

Published Studies of Matrix Coils Conclude:

- **STROKE**
  Polyglycolide/Polylactide-Coated Platinum Coils for Patients with Ruptured and Unruptured Cerebral Aneurysms: A Single-Center Experience

We hypothesize that the high percentage of polymer creates an increase in contact points between the coil and the inner surface of the catheter. Consequently, the axial force required to advance the coil is higher. With regard to compartmentalization, the polymer is braided over the wire, therefore not allowing break points within the coil to be active. This may result in less compliance of the coil as it folds against the endothelium of the aneurysm and other coils.

- **NEUROSURGERY**
  Durability of Aneurysm Embolization with Matrix Detachable Coils

The rates of recanalization observed in the present series were comparable to, or worse than, those reported for bare platinum coils.

When considered in the context of the available data on the durability of bare platinum coil embolization, the recanalization (36.6%) and retreatment (23.1%) rates indicate that the results achieved with the MDC system are not superior to those reported for bare platinum detachable coils systems.

Published CERECYTE® Study Concludes:

These preliminary data suggest that this new PGA-loaded coil is not associated with an increased complication rate. The handling of the coil and the primary occlusion rate are comparable to those of the bare platinum coils. The low recanalization rate is promising and warrants a larger randomized controlled trial.


Learn more about the latest information on the CERECYTE Coil Trial at www.cerecytecoiltrial.com
The Inside Advantage
Is No Stretch

Stretch-Resistant from the Inside Out

CERECYTE® Microcoils are built on a foundation of strength. In fact, the stretch-resistant fibers used in CERECYTE Microcoils are among the strongest in the industry. As a result, they deliver tensile strength that is superior to other stretch-resistant coils.

Confidence Comes from Within

The fact is, CERECYTE Microcoils stay intact—during deployment, after detachment, even during repositioning or retrieval.

In bench-top testing, CERECYTE inside members were found to be securely intact with the platinum outer wind even after rigorous snaring.

Learn more about the latest information on the CERECYTE Coil Trial at www.cerecytecoiltrial.com
The Inner Workings

The Inside Advantage

The PGA polymer is uniquely positioned within the primary wind of the coil. As a result, CERECYTE® Microcoils are stretch-resistant and handling characteristics are similar to bare platinum coils, allowing for dense packing of the aneurysm with no change in coiling technique.

It’s Molecular!

*Induced tissue response:* The molecular breakdown of PGA occurs through hydrolysis. Water molecules from blood and other body fluids contact PGA through interstices of the coil. Macrophages, or white blood cells, engulf and digest the PGA. Fibroblasts then produce collagen in a structural, weblike fashion.

It’s Responsive!

Collagen-producing fibroblasts transition to fibrocytes, maturing into a fibrous collagenous scaffolding that is formed within the aneurysm body. This provides support for neointimal formation across the aneurysm neck. In addition, initial platinum volume density is maintained within the aneurysm.

*Polyglycolic acid (PGA) appears to have induced tissue response. Animal studies data on file, Micrus Endovascular Corporation.