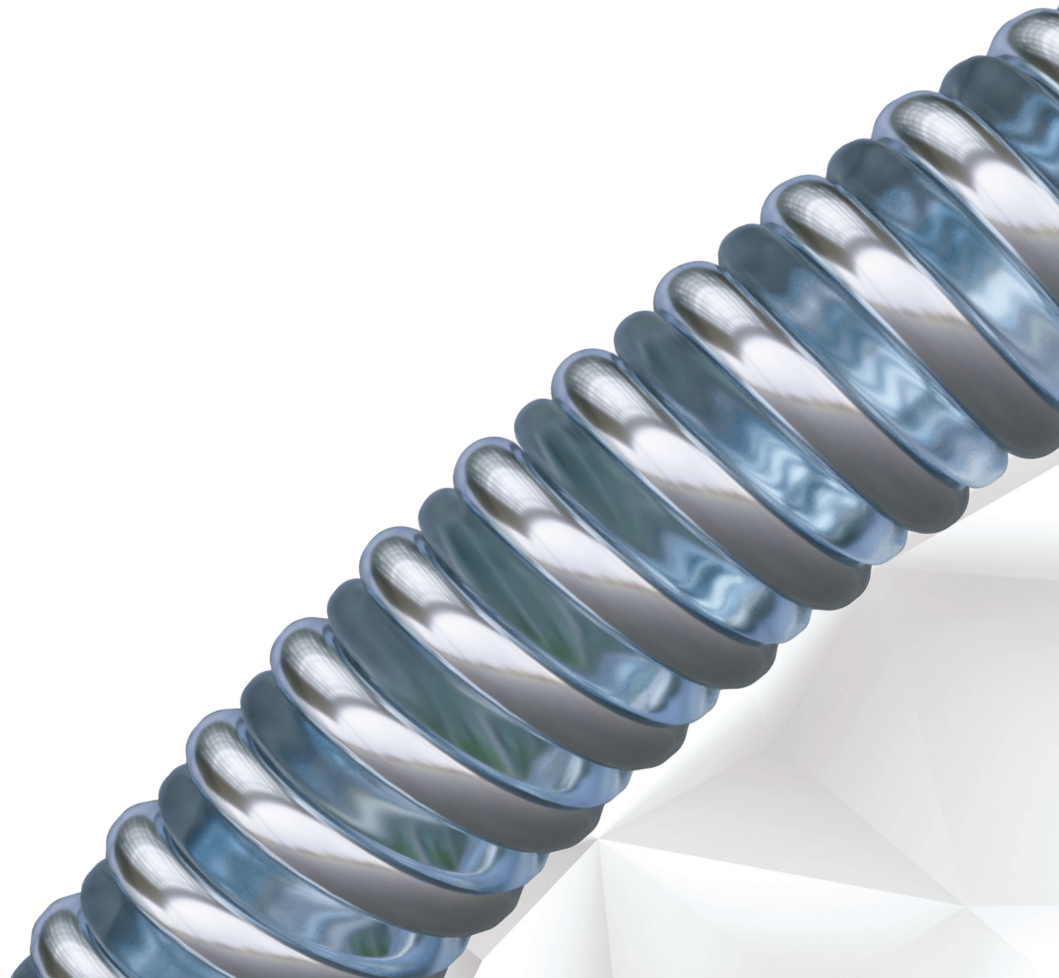


EVIDENCE- BASED EXCELLENCE.

Hydrogel Coils
Unique to MicroVention



Hydrogel Coils - A Rigorously Studied Coil Technology

Repeatedly proven hydrogel coil technology provides a scaffold for endothelialization at the aneurysm neck.

Hydrogel is a pH - activated material that expands to a specified diameter within the coil's primary wind when exposed to blood.



Lower
Recurrence
Rate^{1,2}



More
Progressive
Occlusion^{1,2}



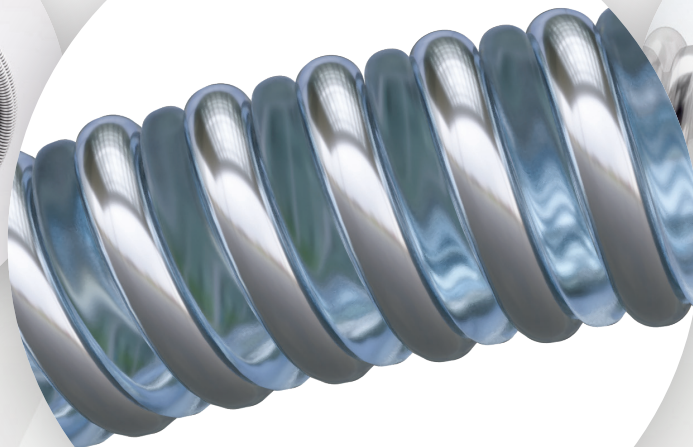
Higher Packing
Density With
Fewer Coils^{1,2}



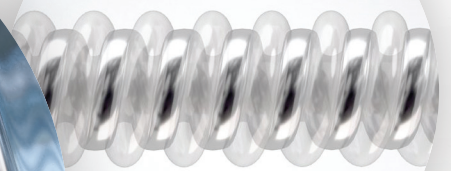
Comparable
Safety^{1,2}



Platinum Coil



Hydrogel Coil



Specialty Filling Coil

Proven in Studies to Deliver

Multiple Randomized Controlled Trials

Hydrogel coils are a highly studied coil technology, with over a thousand patients treated in multiple randomized controlled trials.

Study	Hydrogel Coils Used in Study	Number of Patients and Follow Up Time
GREAT¹ <small>Published in 2018, <i>Stroke</i></small>	HydroFrame™, HydroSoft™	484 patients Follow-up time: 18 mos.
HEAT² <small>Published in 2020, <i>Neurosurgery</i></small>	HydroFrame™, HydroSoft™, HydroFill™	600 patients Follow-up time: 18-24 mos.

Lower Recurrence & Comparable Safety

Recurrence Rate	Safety Profile		
<table border="1"> <tr> <td>Hydrogel Coils 12%</td> <td>Bare Platinum Coils 18%</td> </tr> </table>	Hydrogel Coils 12%	Bare Platinum Coils 18%	<p>NO SIGNIFICANT DIFFERENCE in morbidity and mortality rates BETWEEN HYDROGEL COILS AND BARE PLATINUM COILS</p>
Hydrogel Coils 12%	Bare Platinum Coils 18%		
<table border="1"> <tr> <td>Hydrogel Coils 4.4%</td> <td>Bare Platinum Coils 15.4%</td> </tr> </table>	Hydrogel Coils 4.4%	Bare Platinum Coils 15.4%	
Hydrogel Coils 4.4%	Bare Platinum Coils 15.4%		

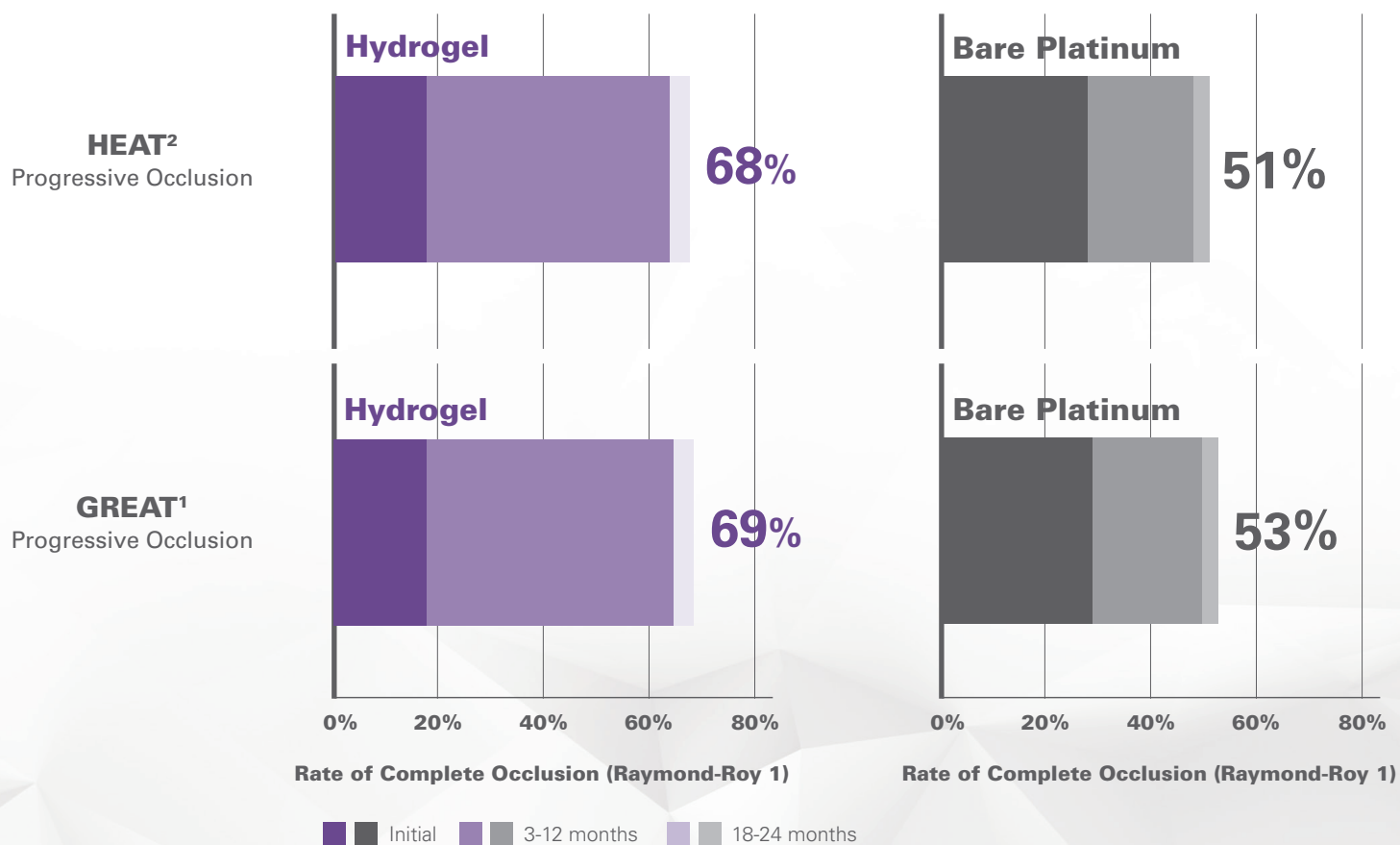
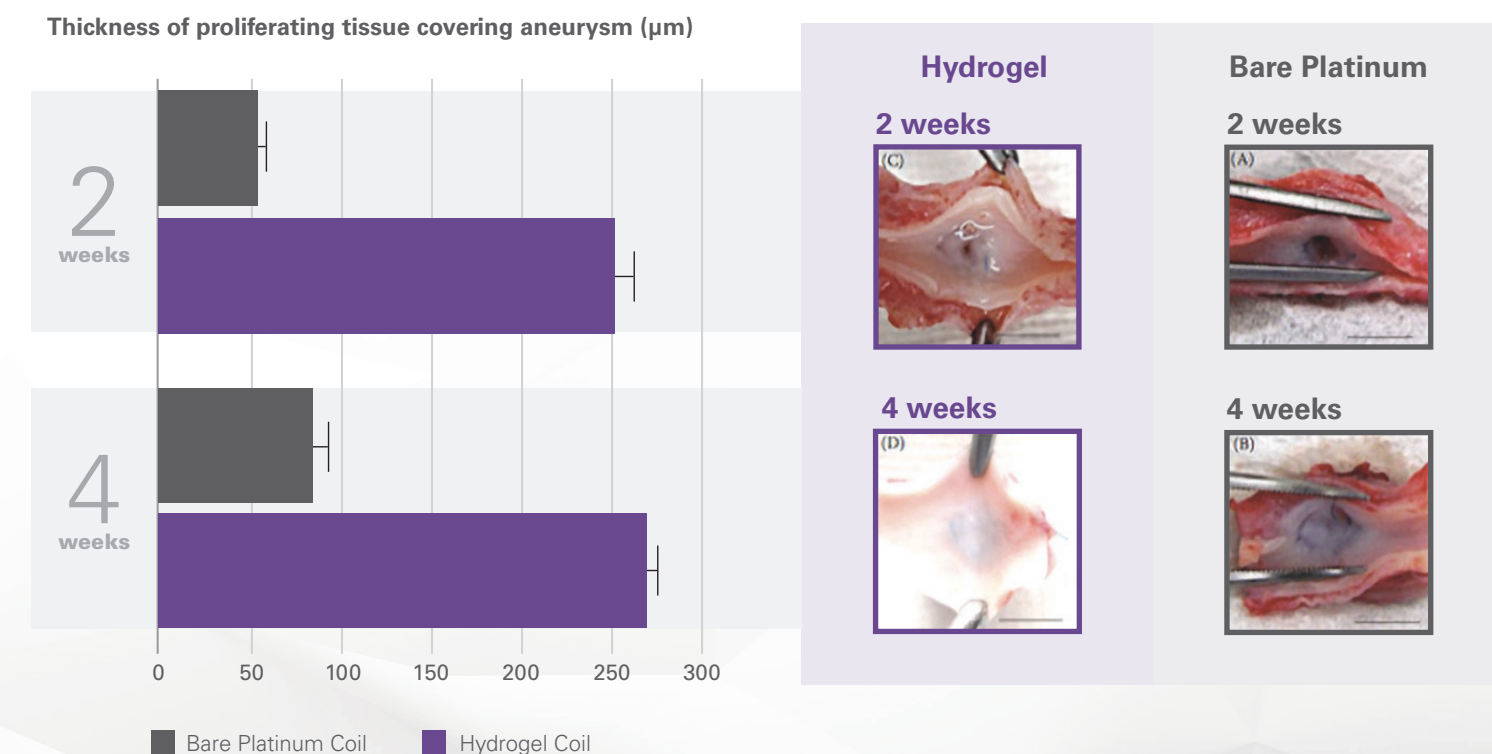
p value <0.001

Higher Packing Density With Fewer Coils

Average Packing Density	Average Number of Coils				
<table border="1"> <tr> <td>Hydrogel Coils 39%</td> <td>Bare Platinum Coils 31%</td> </tr> </table>	Hydrogel Coils 39%	Bare Platinum Coils 31%	<table border="1"> <tr> <td>Hydrogel Coils 6.5</td> <td>Bare Platinum Coils 7.0</td> </tr> </table>	Hydrogel Coils 6.5	Bare Platinum Coils 7.0
Hydrogel Coils 39%	Bare Platinum Coils 31%				
Hydrogel Coils 6.5	Bare Platinum Coils 7.0				
<table border="1"> <tr> <td>Hydrogel Coils 32.5%</td> <td>Bare Platinum Coils 24.7%</td> </tr> </table>	Hydrogel Coils 32.5%	Bare Platinum Coils 24.7%	<table border="1"> <tr> <td>Hydrogel Coils 4.9</td> <td>Bare Platinum Coils 5.6</td> </tr> </table>	Hydrogel Coils 4.9	Bare Platinum Coils 5.6
Hydrogel Coils 32.5%	Bare Platinum Coils 24.7%				
Hydrogel Coils 4.9	Bare Platinum Coils 5.6				

Superior Progressive Occlusion³

In a comparative study of endothelialization at the aneurysm neck, the hydrogel coil group generated a thicker layer versus the bare platinum coil group at two and four weeks post-implantation. Aneurysms treated with hydrogel coils have superior progressive occlusion and lower recanalization rate than those treated with bare platinum coils because of this thicker layer of endothelialization.³



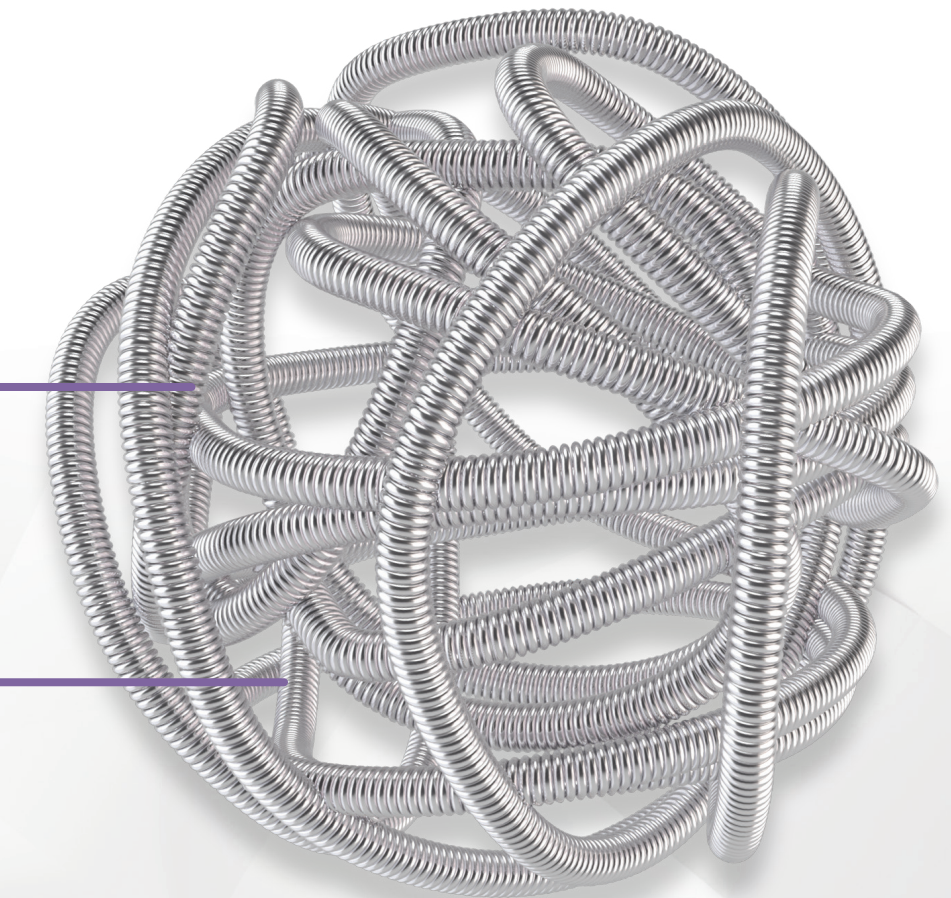
HYDROFRAME™ Embolization Coil



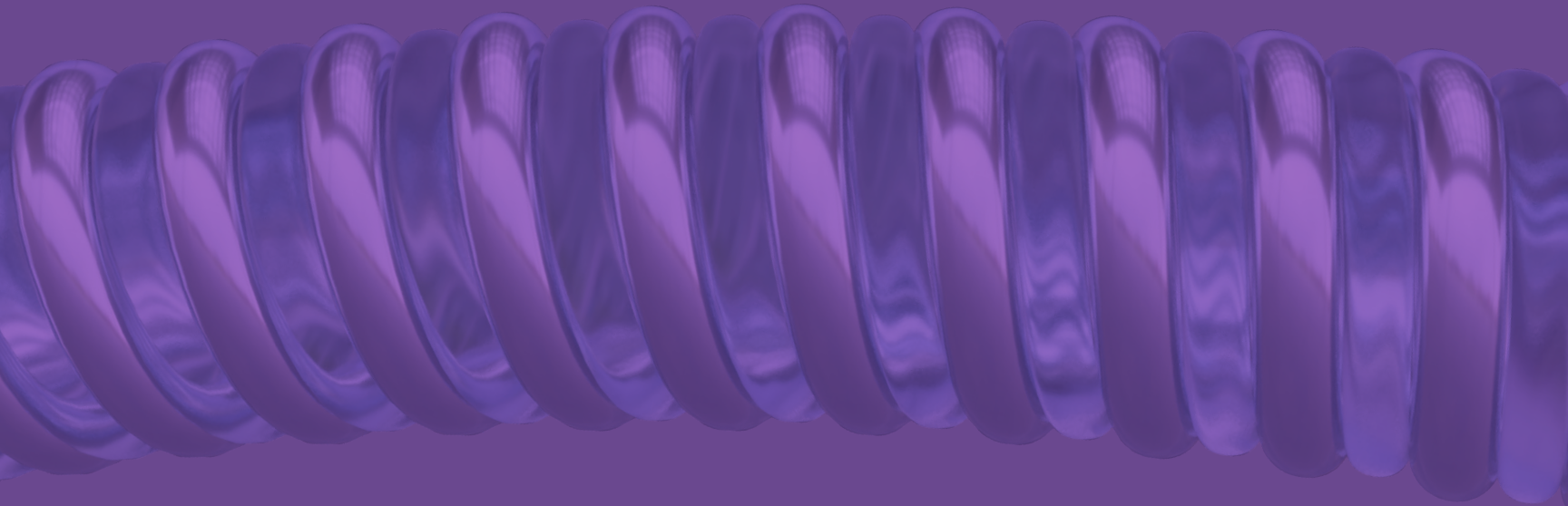
Enhanced hydrogel coil design allows for comparable softness to bare platinum coils



Soft Primary Wind



Coil gaps may vary. Image may not be indicative of all available coil options.



References:

1. Taschner CA, Chapot R, Costalat V, et al. Second-generation hydrogel coils for the endovascular treatment of intracranial aneurysms. *Stroke*. 2018;49:667-674.
2. Bendok BR, Abi-Aad KR, Ward JD, Kniss JF, Kwasny MJ, Rahme RJ, et al. The hydrogel endovascular aneurysm treatment trial (HEAT): a randomized controlled trial of the second-generation hydrogel coil. *Neurosurgery*. 2020 May 1;86(5):615-624.
3. Iseki S, Mitome-Mishima Y, Ogino I, Suga Y, Yatomi K, Nonaka S, et al. Histological and transmission electron microscopy results after embolization with HydroSoft/HydroFrame coils in experimental swine aneurysm. *Biomed Res Int*. 2019 Dec;2019:4834535.



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For healthcare professional intended use only.

RX Only: Federal (USA) law restricts this device to sale by or on the order of a physician.

INDICATIONS FOR USE:

The HydroCoil® Embolic System (HES) is intended for the endovascular embolization of intracranial aneurysms and other neurovascular abnormalities such as arteriovenous malformations and arteriovenous fistulae. The HES is also intended for vascular occlusion of blood vessels within the neurovascular system to permanently obstruct blood flow to an aneurysm or other vascular malformation and for arterial and venous embolizations in the peripheral vasculature. The device should only be used by physicians who have undergone pre-clinical training in all aspects of HES procedures as prescribed by MicroVention.

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