Discover the Power of Spiral Laminar Flow™

Spiral Flow™ Peripheral Vascular Grafts

Restores natural blood flow slowing down disease progression¹
81% primary patency rates²
A viable alternative to vein harvesting

www.vascular-flow.com
Discover the Power of Spiral Laminar Flow™

Our unique Spiral Laminar Flow™ technology is based on a renewed understanding of blood flow patterns developed as a result of fiber optic angioscopic examinations of arteries during infrainguinal reconstructions by Stonebridge & Brophy in 1991. Their findings have established the prevalence and benefits of spiral flow in the circulatory system — something that was first observed by Leonardo da Vinci and can be seen in his drawings of the heart!

Our innovative Spiral Laminar Flow™ technology employed in our grafts reinstates the body’s natural blood flow pattern, bringing following benefits:

- Reduced turbulence within the blood vessel
- Reduced wall pressures and stresses
- Reduced particle adhesion to the vessel wall — the particles are held in the centre of the vessel
- Improved blood flow through stenoses or blockages

Inducing Spiral Flow™ through prosthetic implant grafts significantly reduces the turbulence created at the distal end of the anastomosis.

Observe SLF™ with Colour Doppler Ultrasound in the leg

No preparation is required for examining the peripheral arteries or bypass grafts. The subject is normally supine. The leg under examination is adducted and externally rotated to allow effective access to the groin. In addition to the standard longitudinal assessment of the artery or graft, the following describes the acquisition of transverse color flow Doppler of the artery or graft:

1) NOTE: The presets of the ultrasound should be on “venous” protocol. This is because the velocity ranges of the spiral flow are lower than the longitudinal velocities normally observed.

2) The probe is held transverse to the artery/graft. In order to gain a true transverse, 90° to the longitudinal plane in both anteroposterior and right to left directions, the probe needs alterations to the angles in right to left and anteroposterior planes. The aim is to reduce the longitudinal component of the velocity so that only the transverse components are visualised.

3) The process can be repeated at different sites down the leg from groin to below knee popliteal arterial site. Where normal flow exists, a characteristic “red/blue split” will be seen. The Spiral Flow™ Graft remodels the turbulent flow pattern and pressure created by conventional grafts into the normal, spiral flow pattern seen throughout the body.

What makes the Spiral Flow™ PV Graft different

Restores Natural Blood Flow

The primary cause of failure in prosthetic grafts is neointimal hyperplasia (NIH) usually occurring at the distal anastomosis. NIH is caused in large part by turbulent flow and pressure created by conventional grafts damaging the endothelial cell lining of the host vessel. Our Spiral Flow grafts are proven to restore natural blood flow.

Unique design

Our unique Spiral Flow™ graft design re-models turbulent flow created by diseased vessels and conventional grafts into the body’s own natural spiral flow pattern as determined by transverse color Doppler ultrasound. We can guarantee that our graft will create spiral flow which is directed into the distal vasculature. No other graft does that. Excellent outcomes can arise from being normal...

Innovative construction

Our Spiral Flow™ Peripheral Vascular Graft is unique in its construction from all other prosthetic vascular grafts. Near the distal end of the graft is a ridge that remodels the turbulent flow inside the graft into the natural pattern of blood flow. It is called a SPIRAL FLOW INDUCER. The inducer is formed by injection-molding of Chronoflex 80® polyurethane onto the outside of the graft creating an ePTFE Helical form on the graft lumen.

Improved clinical outcomes

We are committed to developing Clinical Experience with Spiral Flow™ products to further enhance the growing body of evidence demonstrating improved patient outcomes. The Surgeon has the benefit of a familiar, safe and clinically proven graft with the added power of Spiral Laminar Flow™ technology delivering:

- Reduced Neointimal Hyperplasia (NIH)
- Reduced disease progression
- Longer device patency
- The patient can expect less interventions & the associated improvement in quality of life

<table>
<thead>
<tr>
<th>Spiral Flow™ graft</th>
<th>1y</th>
<th>2y</th>
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<tbody>
<tr>
<td>AK primary patency</td>
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<td>81%</td>
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<td>BK primary patency</td>
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<tr>
<td>BK secondary patency</td>
<td>86%</td>
<td>64%</td>
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Our Spiral Flow™ Peripheral Vascular Grafts

The **distal end** of all Spiral Flow™ Grafts features a Spiral Flow Inducer Segment and a Distal Cuff separated by a 3-5mm area called the Trim Gap. The 6mm Spiral Flow™ PV Graft is fully externally supported with a non-removable bead over the Spiral Inducer Segment. The 8mm Spiral Flow™ PV graft is unsupported.

![6mm and 8mm Spiral Flow™ PV Grafts](image)

### Product Range

Our Spiral Flow™ Peripheral Vascular Grafts are available in the following sizes. For further information visit [www.vascular-flow.com](http://www.vascular-flow.com)

<table>
<thead>
<tr>
<th>Length</th>
<th>6mm Diameter</th>
<th>8mm Diameter</th>
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<tbody>
<tr>
<td>50cm</td>
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Contact Innovative Medical Supplies for more information

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