OPTIFLOW
Arterial and Venous Cannulae

Cannulae that can

Highly physiological cannulae
Optiflow Arterial and Venous Cannulae

Optiflow Cannulae are highly physiological cannulae designed to reduce patient complications and meet procedural needs. The Optiflow Arterial cannula features a dispersive tip that reduces shear stress on the aortic wall. The Optiflow Venous cannula features a compact swirled tip that provides clear surgical view and high flow drainage, especially in minimally invasive procedures.

- Reduced aortic wall shear stress
- Clear surgical view and high venous drainage in MICS
- Low pressure drops
- Can help reduce patient complications
Optiflow Arterial Cannulae

Less Jet, More Natural Dispersion

The Optiflow Arterial cannula is available with straight and bent tips, both of which feature an innovative and unique 3-dimensional dispersion basket that allows a more physiological flow. This tip design has been shown to reduce the pressure of the inlet jet stream on the aorta, thus mitigating arterial embolization of atherosclerotic plaques that are the potential cause of stroke or ischemia of other organs.\(^1\)

Available Configurations

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<td>Curved Tip, Wire-reinforced Tubing</td>
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Di-ethylhexyl phthalate plasticizer free tubing with or without wire-reinforcement

Large opening outlet area

3-dimensional dispersion of the blood flow

Smooth tip facilitates insertion
Reduced Aortic Wall Shear Stress

Plaque dislodgments from the aortic wall may induce neurological complications in adult patients undergoing extracorporeal circulation in cardiac surgery.

Embolization of atherosclerotic plaques has been reported to be correlated with enhanced maximum wall shear stress values of the aortic arch cannula on the aortic wall.

Dr Assmann’s study evaluated the shear stress values of an Optiflow Arterial cannula dispersive tip in comparison to a standard tip.¹

"Optiflow reduced the maximum and average aortic wall shear stress values to approximately 50% compared to control cannulas. Optiflow have the potential to reduce ECC-related complications such as stroke, endothelial damage and hemolysis.¹"

Pressure Drop

All data extracted from relative Instructions For Use
Optiflow Venous Cannula

Less Pressure, More Active Drainage

The Optiflow Venous cannula features a special swirled tip design with multiple side holes that facilitate active and physiological venous drainage regardless of the position of the heart. This cannula is more compact than a standard cannula which makes it easier to insert and remove while improving the surgical view, especially in minimally invasive procedures. The special tip can help reduce patient complications often associated with femoral venous cannulation, such as deep wounds and high bleeding.¹

Compact size for improved view in narrow spaces

Di-ethylhexyl phthalate plasticizer free tubing with or without wire-reinforcement

Unique 13 cm swirled and grooved tip with multiple side holes

Distal central opening

V182–29

Optiflow Venous Cannula

29 Fr size available
High Venous Drainage in Minimally Invasive Procedures

The use of direct venous cannulation in minimally invasive procedures helps avoid the risk of complications related to femoral cannulation. The Optiflow Venous cannula drains from the atrium and provides good visualization, making valve implantation easier while ensuring optimal venous drainage without the need for a double cannulation.²

“In our experience, the innovative small-sized, 29-Fr Optiflow cannula provides high-flow drainage across the entire cannula inserted into the right atrium without the need for double cannulation and with no increase in central venous pressure.”²

Pressure Drop

![Pressure Drop Graph]

29 Fr Optiflow = 48 mmHg at 5L/min
Discover more at cannulae.livanova.com

www.livanova.com

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Please always refer to the Instructions For Use (IFU) manual provided with each product for detailed information, warnings, precautions and possible adverse side effects.

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