Impella 2.5®
Heart Pump

MINIMALLY INVASIVE HEMODYNAMIC SUPPORT

Stabilize. Unload. Recover.

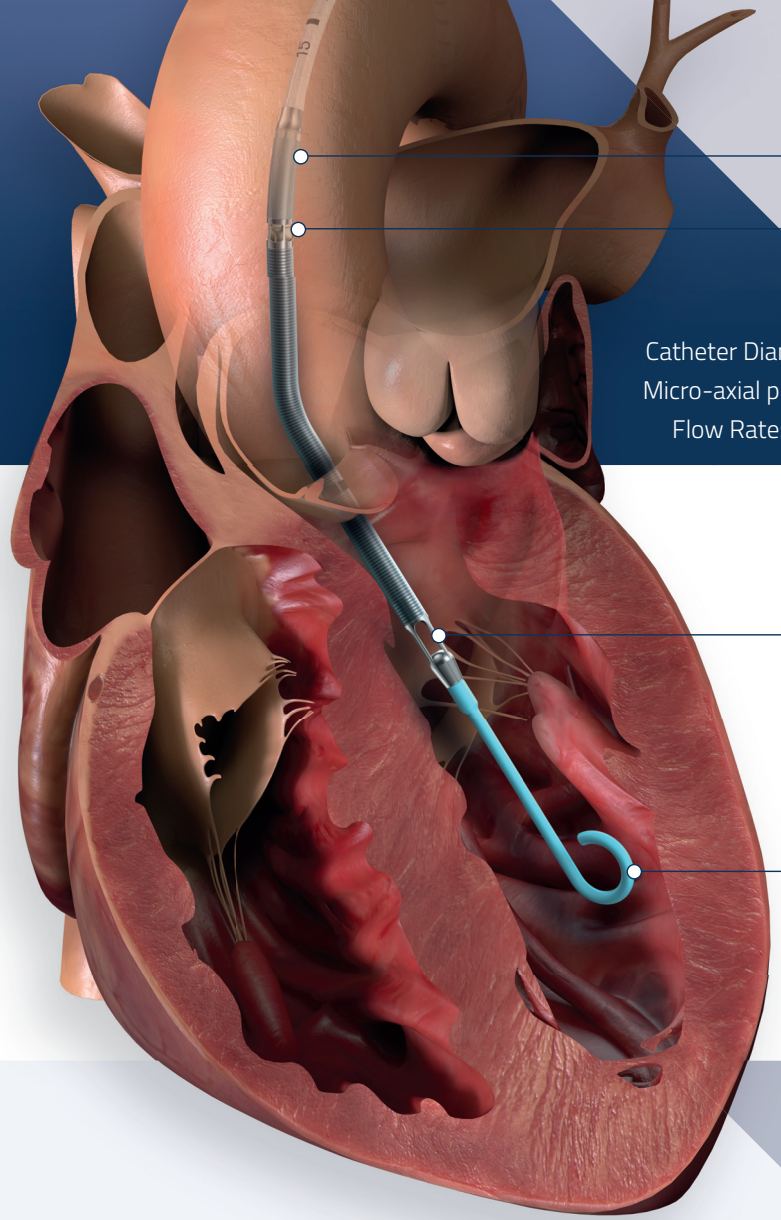
ABIOMED®

Recovering hearts. Saving lives.

Impella 2.5® Heart Pump

Improving the Standard of Care in Cardiology

The World's Smallest Heart Pump



Catheter Diameter: **9 Fr**
Micro-axial pump: **12 Fr**
Flow Rate: **2.5 L/min**

- Delivers up to 2.5 L/min of forward flow [1,2,3,4,6,8,10,11]
- Directly unloads the ventricle [1,2,5,6,7,9]
- Not inotrope or timing dependent
- Designed for Ease of Use [1-6]
- 9 Fr Catheter, 12 Fr micro-axial pump

How the Impella 2.5 Heart Pump Works

The Impella pump pulls blood from the left ventricle through an inlet area near the tip and expels blood from the canula into the ascending aorta.

The pump can be inserted via a standard catheterization procedure through the femoral artery, into the ascending aorta, across the valve, and into the left ventricle.

More than 100,000 patients worldwide have already been treated with the Impella heart pumps.[16]

Micro-axial Blood Pump

Delivers forward flow from the left ventricle to the aorta

Single Access Point

Minimally invasive placement through a single artery and into the left ventricle

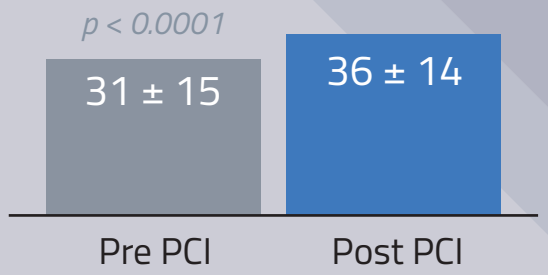
Direct Ventricular Unloading

Actively unloads up to 2.5 L/min from the left ventricle

Protected PCI

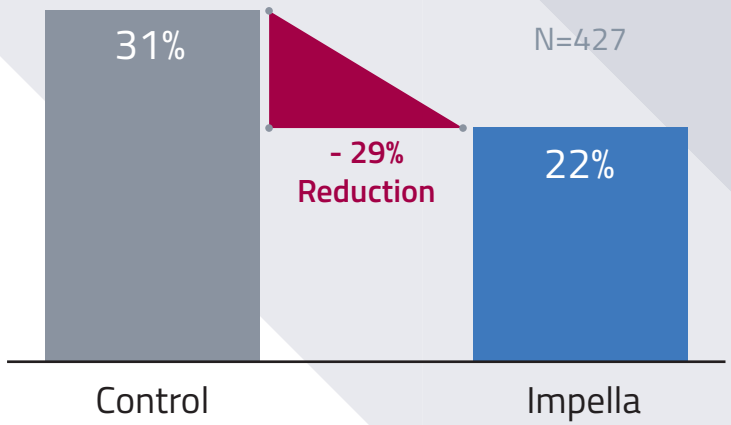
- In the latest USPella registry data[15], 56% of patients supported with Impella for complex PCI were declined for heart surgery due to their risk factors.
- In the PROTECT II trial, LVEF increased from 27±9% pre-PCI to 33±11% in follow-up after Protected PCI.[13]
- In the PROTECT II trial, protected PCI resulted in a 58% reduction in NYHA class III and IV.[13]

LVEF Improvement Post PCI



USPella, 175 patients undergoing protected PCI[13]

Fewer Adverse Events (MACCE*)



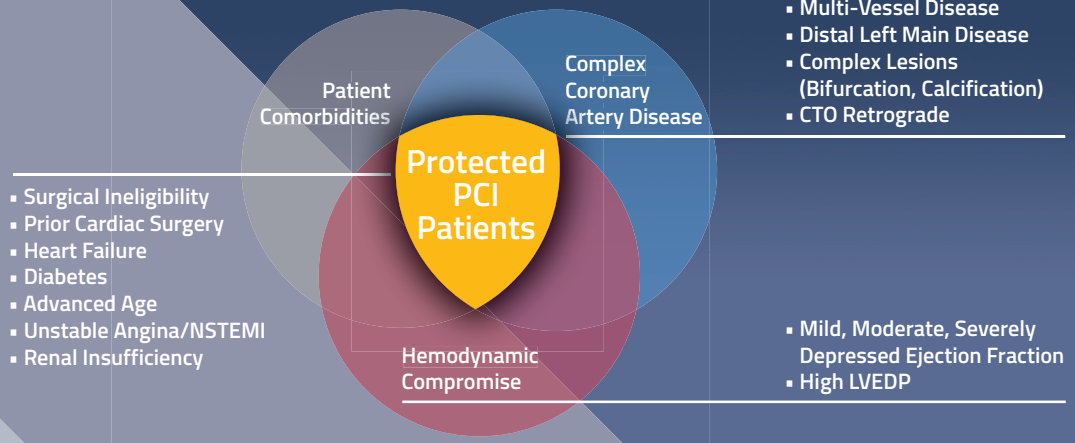
*MACCE = Major Cardiac and Cerebrovascular Events

Protected PCI is safe and effective

Protected PCI with Impella 2.5 results in[14]:

- Less time in hospital: **-2 days**
- Fewer Adverse Events at home:: **-56%**
- Less hospital readmissions: **-52%**

Growing Population Approbriate for PCI



Impella 2.5® Heart Pump

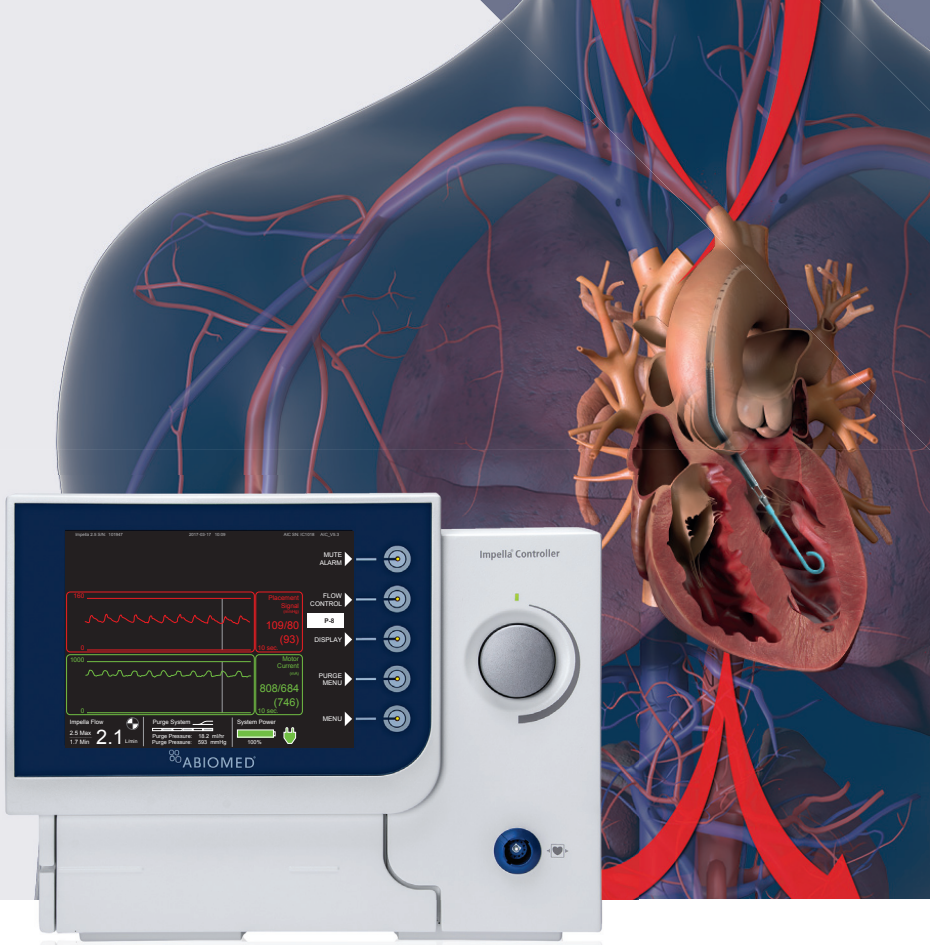
Product Information

REF	Description
005040	Impella 2.5 pump for the Automated Impella Controller with 13 Fr introducer kit, 0.018" x 260 cm guidewire, 0.035" x 150 cm guidewire, Impella Controller connector cable, purge cassette, ea.

Accessories

REF	Description
0052-0007	Introducer Kit includes 13 Fr dilator and sheath, guidewire, puncture needle, 10 cc syringe, ea.
0042-0002	Impella Controller Connector Cable for Impella 2.5. Impella CP, Impella 5.0, Impella LD and Impella RP
0043-0003	Impella Controller Purge Cassettes, Box of 5
0052-3005	Placement guidewire for Impella 2.5, 0.018" (0.47) diameter, 260 cm length, PTFE coated guidewire

Purge Cassette



Learn more about hemodynamic support and the Impella system.

Sources: **1.** *G1. Burzotta et al, Journal Card Vasc Med, 2008* **2.** *Dixon et al, JACC 2009* **3.** *Henriques et al, Journal American Card, 2008* **4.** *Seyfarth et al, JACC, 2008* **5.** *Sjauw et al, MACH II, JACC, 2008* **6.** *Valgimigli et al, Card Cardiov nverv, 2005* **7.** *Reesink et al, CHEST, 2004* **8.** *Fincke et al, JACC, 2004* **9.** *Sauren et al, 2007* **10.** *Meyns et al, JACC, 2003* **11.** *Torgersen, 2009* **12.** *O`Neill, J Interven Cardiol, 2014* **13.** *O'Neill, Circulation PROTECT II, 2012* **14.** *Gregory D, et al, American Health & Drug Benefits, 2013* **15.** *Maini, 2011* **16.** *Abiomed Data on File. The Impella platform includes Impella 2.5, Impella CP, Impella 5.0, Impella LD and Impella RP*

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INDICATIONS EU

The Impella (intracardiac pump for supporting the left ventricle) is intended for clinical use in cardiology and in cardiac surgery for up to 5 days for the following indications, aswell as others:

- The Impella is a circulatory support system for patients with reduced left ventricular function, e.g., post-cardiotomy, low output syndrome, cardiogenic shock after acute myocardial infarction, or for myocardial protection after acute myocardial infarction
- The Impella may also be used as a cardiovascular support system during coronary bypass surgery on the beating heart, particularly in patients with limited preoperative ejection fraction with a high risk of postoperative low output syndrome.
- Support during high risk percutaneous coronary intervention (PCI)
- Post PCI

CONTRA INDICATIONS EU

- Mechanical aortic valves, severe aortic valvular stenosis or valvular regurgitation
- Hematoolgical disorder causing fragility of the blood cells or hemolysis
- Hypertrophic obstructive cardiomyopathy (HOCM)
- Aneurysm or necrotomy or severe anomaly of the ascending aorta and / or the aortic arch
- Mural thrombus in the left ventricle
- Ventricular septal defect (VSD) after myocardial infarction
- Anatomic conditions precluding insertion of the pump
- Other illnesses or therapy requirements precluding use of the pump
- Severe peripheral arterial occlusion disease (PAOD) is a relative contraindication

In addition to the risks above, there are other WARNINGS and PRECAUTIONS associated with Impella devices. For more information please visit ***https://www.protectedpci.eu/en/therapy/product-variations/***

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