

Single Access with Impella®

A simple and effective way to perform revascularization procedures using a single arterial access¹



Benefits may include²:

Reduced procedural time and complexity



19% reduction in procedural time

24% less fluoroscopy time

12.5% less contrast media use

Lower risk of bleeding and access site complications



50% less bleeding complications

46% reduction in hematomas

Ability to treat those with limited vascular access



Helpful in those with limited access site options due to peripheral arterial disease



Learn more about single access with Impella



Indication & Safety Information

1. "Single-access for Hi-Risk PCI (SHIP) technique", Wollmuth et al. Wiley. July 2019. REF-0805

2. "Safety and Efficacy of Single-access Impella for High-risk percutaneous intervention (SHIP)", Hakeem et al. Feb 2022. JACC. REF-2319

Is Your Patient Appropriate for Protected PCI?

Use the following form to determine if a patient may be appropriate to receive a Protected PCI procedure. The criteria for selection is based on U.S. FDA safety and efficacy labeling, randomized control trials, society guidelines and consensus documents.

Complex Coronary Artery Disease		Hemodynamic Compromise	Patient Comorbidities	
Severe CAD	Procedure Based Risk	Hemodynamic Risk	Comorbidities	Surgical Risk
Conditions such as:				
☐ Multivessel disease ^{1,2} ☐ PCI of last available conduit ⁷ ☐ Unprotected or distal left main disease ¹	☐ Anticipated prolonged ischemic time ☐ Atherectomy planned ³ ☐ Retrograde CTO planned ⁴ ☐ Anticipated use of guide extensions ☐ Large area of myocardium at risk ⁵ ☐ Unavailability of immediate surgical support	☐ Depressed EF ² ☐ Mild ☐ Moderate OR ☐ Severe ☐ Borderline hemodynamic parameters	☐ Advanced age ¹ ☐ Frailty ☐ Renal insufficiency ¹ ☐ Acutely decompensated heart failure ^{1,5} ☐ Diabetes ☐ ACS (unstable angina/NSTEMI) ^{1,5} ☐ Aortic stenosis ☐ Moderate/severe mitral regurgitation	☐ Surgical turnaround (Physician or patient preference) ⁶ ☐ High-risk for surgery (STS >4 or Syntax >22) ⁸ ☐ Prior CABG ¹ ☐ Cerebrovascular disease ⁸

Impella support is appropriate in patients with severe coronary artery disease, complex anatomy and extensive comorbidities with or without depressed ejection fraction (EF). Impella heart pumps are the only percutaneous temporary ventricular assist devices FDA-approved as safe and effective for high-risk PCI. Patients with the above conditions may be eligible.

Are any of the following contraindications present in the patient?

Contraindications				
☐ Mechanical aortic valve or heart constrictive device	☐ Severe peripheral arterial disease precluding placement of the Impella System	☐ Known LV thrombus	☐ Aortic stenosis (area $\leq 0.6\text{cm}^2$)	☐ Moderate to severe aortic insufficiency

If you checked off any of the above contraindication(s) the patient may NOT be eligible.

1. O'Neill W, et al. Circulation. 2012;126(14):1717-1727.

2. Kovacic J, et al. J Interv Cardiol. 2015;28(1):32-40.

3. Cohen M, et al. Catheter Cardiovasc Interv. 2014;83(7):1057-1064.

4. Tsai T, et al. JACC Cardiovasc Interv. 2017;10(9):866-875.

5. Patel M, et al. Am J Cardiol. 2012;59(9):857-881.

6. Alasnag M, et al. Cardiovasc Revasc Med. 2011;12(5):299-303.

7. Sjaun K, et al. Am J Cardiol. 2009;54(25):2430-2434.

8. Levine G, et al. Am J Cardiol. 2011;58(24):e44-122.