

Medtronic

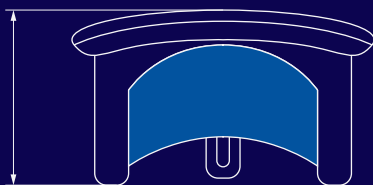


Mosaic™ Bioprosthesis

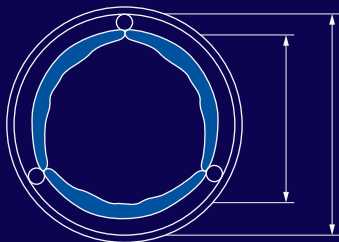
Geometry:
looking beyond
the vertical axis

All valve dimensions, not just the vertical profile, must be considered to mitigate risk of LVOT obstruction

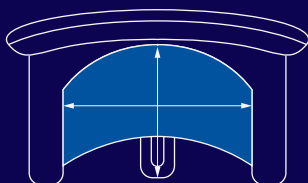
Durko, et al., concluded that a mitral valve's dimensions closely correlate to its performance, safety, and ease of use.¹



Vertical (axial) or total valve height



Horizontal or internal orifice and stent diameters



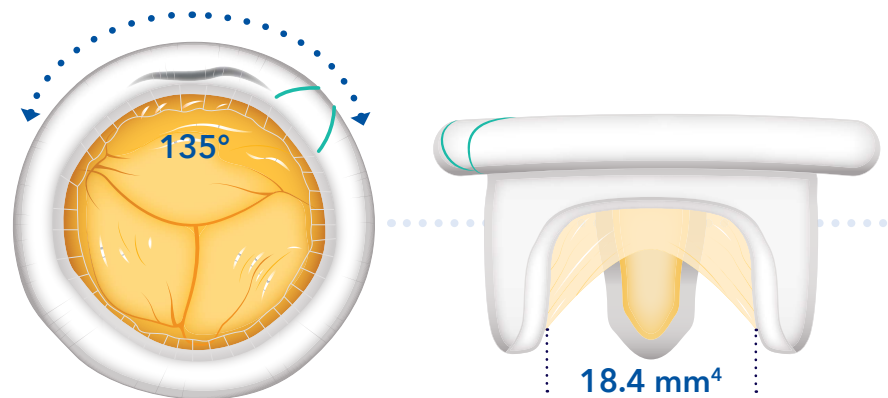
Sinus area – height and interstrut distance

Height and interstrut distance can impact LVOT obstruction.^{2,3}

A mitral valve specifically designed to accommodate ventricular flow.

The Mosaic valve reflects the asymmetry of the native porcine valve. The largest leaflet of the Mosaic is intended to align with the patient's anterior mitral leaflet to accommodate ventricular flow.

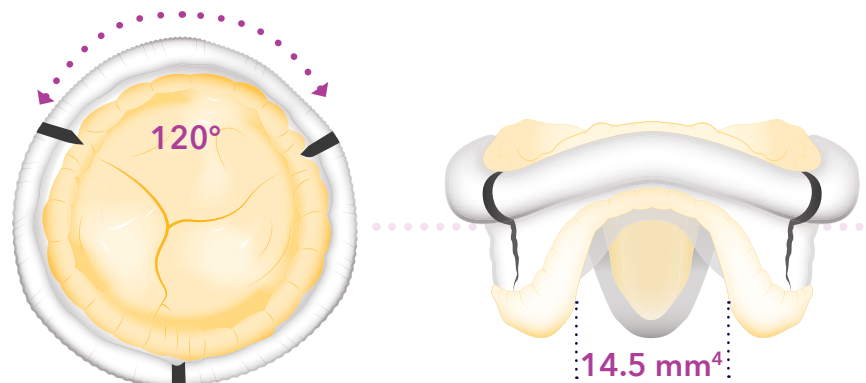
Mosaic vs. Epic™/Epic Plus



Mosaic 29

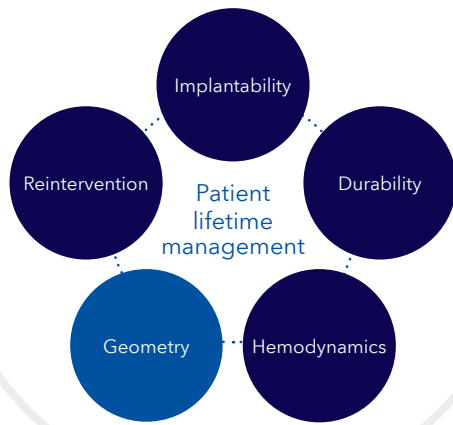
The asymmetrical design of Mosaic offers one wider leaflet spaced at 135°

Viewed from the inflow aspect, the widest intercommissural space of the Mosaic lies between the green suture marker and the first commissure post in the counterclockwise direction. Orienting the bioprosthesis in the annulus such that the green suture marker is directed approximately toward the right fibrous trigone should position the widest intercommissural space appropriately.



Epic/Epic Plus 29

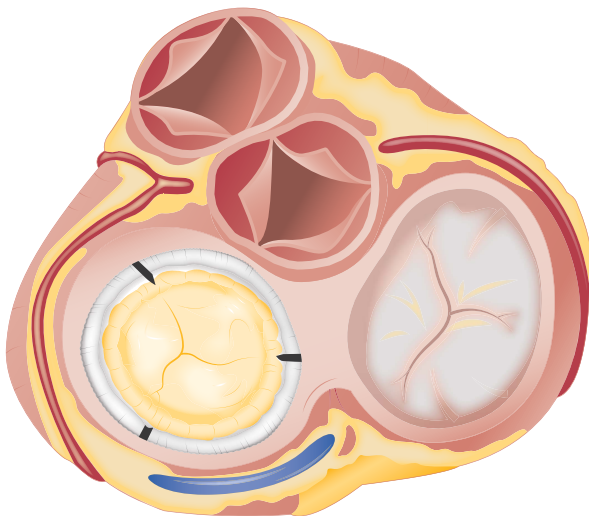
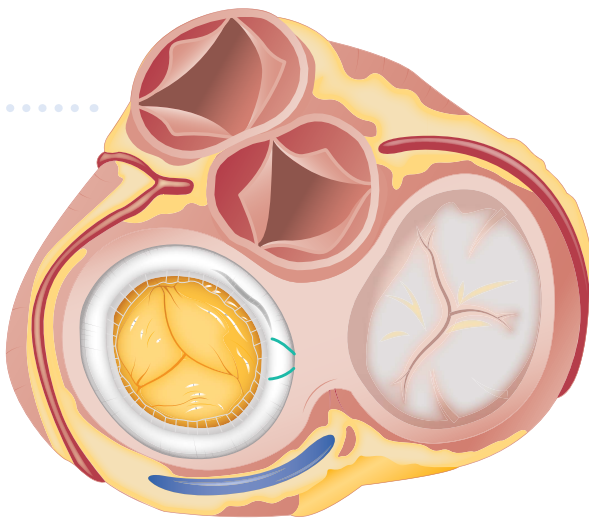
The composite design of Epic includes three individual leaflets, equally spaced at 120°



Consider it
from all angles.
Think in 3-D.

A window into the LVOT.

Scans of a cadaver heart were taken, and both a Mosaic size 29 and an Epic size 29 were implanted with proper orientation. The images below reflect the view from the LVOT and the space available for flow.



References

- ¹ Durko AP, Head SJ, Pibarot P, et al. Characteristics of surgical prosthetic heart valves and problems around labelling: a document from the European Association for Cardio-Thoracic Surgery (EACTS)–The Society of Thoracic Surgeons (STS)–American Association for Thoracic Surgery (AATS) Valve Labelling Task Force. *Eur J Cardiothorac Surg*. June 1, 2019;55(6):1025-1036.
- ² Brunel L, Williams ZA, Beijerink NJ, et al. Bioprosthetic interstrut distance subtending the preserved anterior mitral leaflet mitigates left ventricular outflow tract obstruction. *JTCVS Open*. December 2021;8:251-258.
- ³ Wang DD, Caranasos TG, O'Neill BP, Stack RS, O'Neill WW, Chitwood WR. Comparison of a new bioprosthetic mitral valve to other commercially available devices under controlled conditions in a porcine model. *J Card Surg*. December 2021;36(12):4654-4662.
- ⁴ Medtronic data on file.

Mosaic™ Bioprosthesis

Indications: For the replacement of malfunctioning native or prosthetic aortic and/or mitral heart valves.

Contraindications: None known.

Warnings/Precautions/Adverse Events: Accelerated deterioration due to calcific degeneration of bioprosthesis may occur in: children, adolescents, young adults, and patients with altered calcium metabolism (e.g., chronic renal failure, hyperparathyroidism). Adverse events can include: angina, cardiac arrhythmia, cardiac dysrhythmias, death, endocarditis, infection other than endocarditis, heart failure, hemolysis, hemolytic anemia, hemorrhage, transvalvular or paravalvular leak, myocardial infarction, nonstructural dysfunction, stroke, structural deterioration, thromboembolism, or valve thrombosis.

Caution: Federal law (USA) restricts these devices to sale by or on the order of a physician.

For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use. For countries that use eIFUs, consult instructions for use at this website: www.medtronic.com/manuals. Note: Manuals can be viewed using a current version of any major internet browser.

Medtronic

710 Medtronic Parkway
Minneapolis, MN 55432-5604
USA
Tel: (763) 514-4000
Fax: (763) 514-4879
Toll-free: (800) 328-2518

LifeLine
CardioVascular Technical Support
Tel: (877) 526-7890
Tel: (763) 526-7890
Fax: (763) 526-7888
rs.cstechsupport@medtronic.com

©2023 Medtronic. All rights reserved.
Medtronic, Medtronic logo, and Engineering
the extraordinary are trademarks of Medtronic.
™ Third-party brands are trademarks of their
respective owners. All other brands are
trademarks of a Medtronic company.