

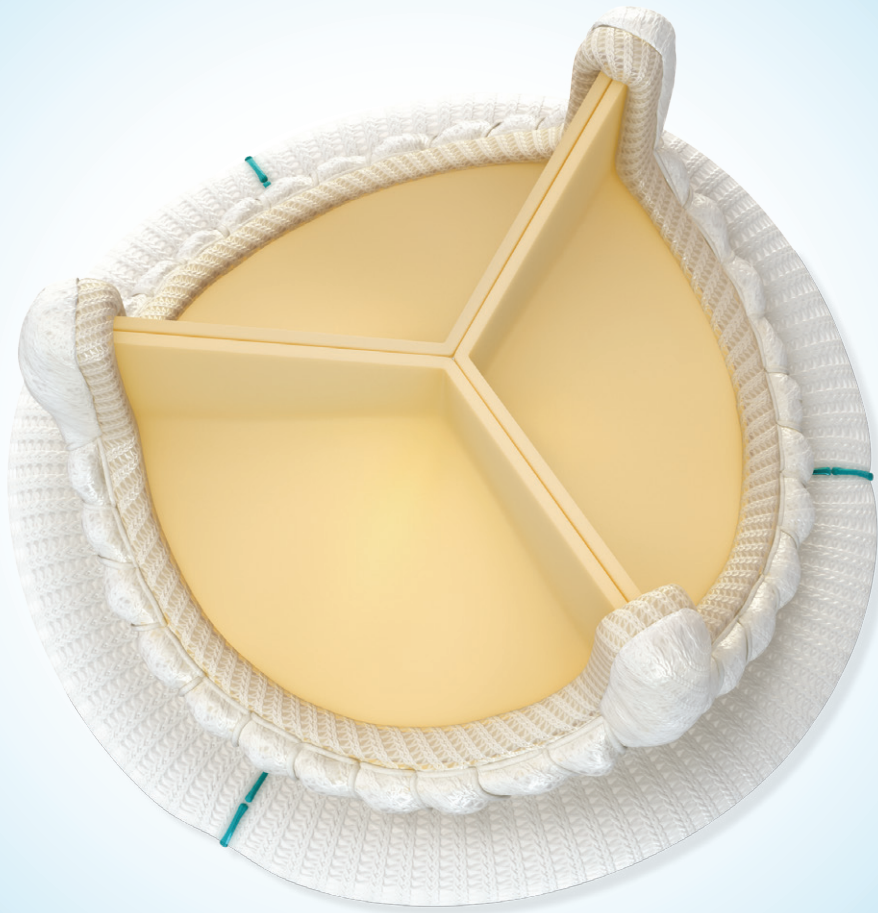
Avalus™  
Bioprosthesis



PROVEN  
PLUS.

With more than 40 years of heart valve innovations, we took proven valve design concepts and adapted them for excellent implantability for you and performance for your patients.

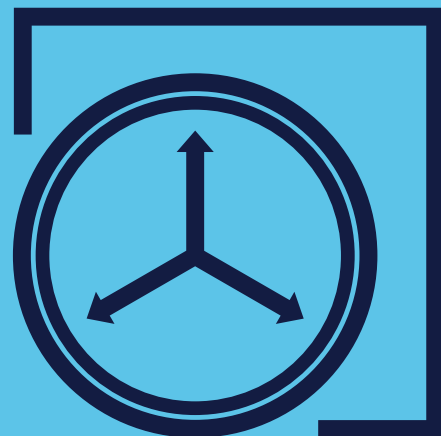
**Medtronic**  
Further, Together



INTRODUCING  
**THE AVALUS™**  
**AORTIC VALVE**  
BY MEDTRONIC.

# YOU WANT THE VERY BEST FOR YOUR PATIENTS. SO DO WE.

We designed the next generation bovine pericardial valve for better overall performance, improved implant experience, and a contemporary design to facilitate future valve-in-valve (ViV).

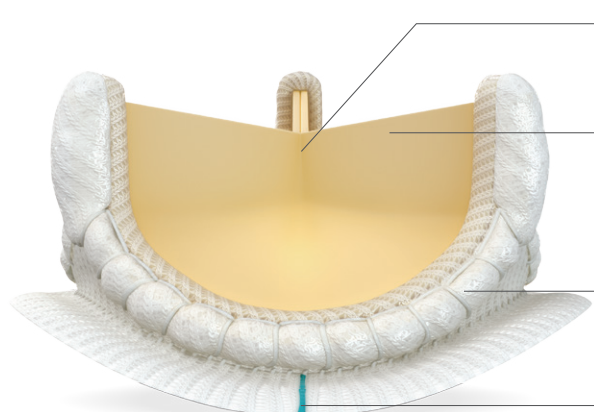


Interior-mounted leaflets minimize damaging contact with the frame — a design platform for long-term durability.



AOA™ tissue treatment\* to mitigate calcification — over 20 years of clinical use on the Medtronic surgical tissue valve portfolio.<sup>1,2</sup>

# PROVEN



- Supra-annular design to enhance hemodynamics<sup>3</sup>
- Three laser cut bovine pericardial leaflets matched for thickness and deflection to provide consistent performance
- Two-part polymer frame minimizes stress zones on leaflets
- Sewing markers facilitate suture placement and valve orientation

\*No clinical data is available which evaluates the long-term impact of AOA treatment in patients.

# PLUS

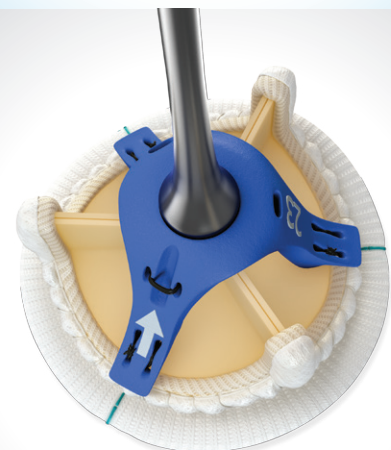
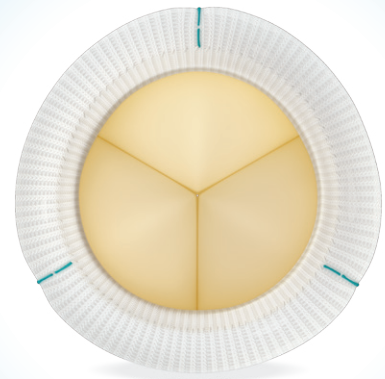


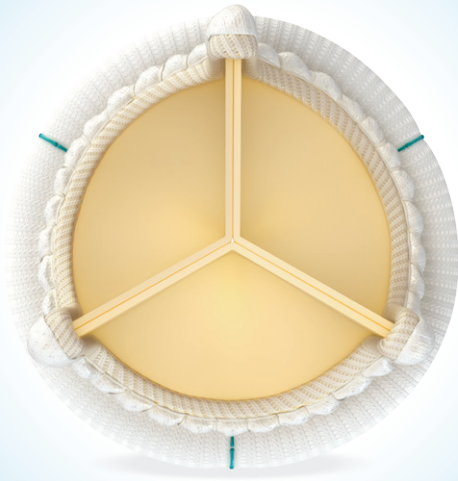
Polyetheretherketone (PEEK) polymer stent provides strength and flexibility, and offers resistance to permanent deformation.

## Ease of Implant for You



- Soft and pliable sewing cuff facilitates needle penetration, suture placement, and valve seating for an improved implant experience
- Lower valve profile and narrow commissure posts expand ostia clearance and give you more space for knot tying
- Streamlined valve holder improves visibility in both standard and minimally invasive approaches
- Simple one-cut release





Designed to achieve 100% coaptation and minimize central regurgitation.



Flexible support frame with firm base designed to maintain circularity and consistent hemodynamic performance.

## Performance and Lifetime Management for Your Patients

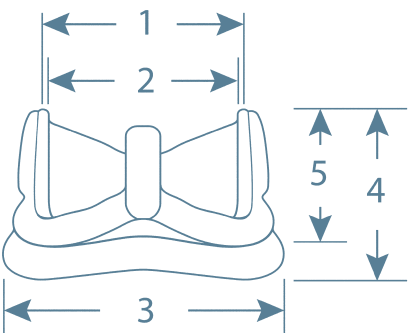


- Valve dimensions and geometry enable future ViV replacements
- PEEK base frame impregnated with barium sulfate provides for radiopacity and visibility
- Polymer frame mitigates the risk of potential metal on metal corrosion with transcatheter stent materials
- MRI Safe in all MR environments without conditions



Ordering and Specifications

| Avalus Valve Order Number | Valve Size | Stent Diameter (TAD) | Internal Orifice Diameter | External Sewing Ring Diameter | Valve Profile Height | Aortic Protrusion |
|---------------------------|------------|----------------------|---------------------------|-------------------------------|----------------------|-------------------|
|                           |            | (1)                  | (2)                       | (3)                           | (4)                  | (5)               |
| 40019                     | 19 mm      | 19 mm                | 17.5 mm                   | 27.0 mm                       | 13.0 mm              | 11.0 mm           |
| 40021                     | 21 mm      | 21 mm                | 19.5 mm                   | 29.0 mm                       | 14.0 mm              | 12.0 mm           |
| 40023                     | 23 mm      | 23 mm                | 21.5 mm                   | 31.0 mm                       | 15.0 mm              | 13.0 mm           |
| 40025                     | 25 mm      | 25 mm                | 23.5 mm                   | 33.0 mm                       | 16.0 mm              | 14.0 mm           |
| 40027                     | 27 mm      | 27 mm                | 25.5 mm                   | 36.0 mm                       | 17.0 mm              | 15.0 mm           |
| 40029                     | 29 mm      | 29 mm                | 27.5 mm                   | 38.0 mm                       | 18.0 mm              | 16.0 mm           |



TAD – Tissue Annulus Diameter

Accessories

| Order Number | Description             |
|--------------|-------------------------|
| 7420         | Valve Handle            |
| 7400S        | Avalus Sizers           |
| T7400        | Tray, Accessory, Avalus |

References

- 1. Medtronic Freestyle® Aortic Root Bioprosthesis was first implanted clinically in August 1992. Freestyle Aortic Root Bioprosthesis 15-Year Clinical Compendium. ©2016 Medtronic.
- 2. Jamieson WR, Riess FC, Raudkivi PJ, et al. Medtronic Mosaic porcine bioprosthesis: assessment of 12-year performance. *J Thorac Cardiovasc Surg.* August 2011;142(2):302-7.
- 3. Ruzicka DJ, Hettich I, Hutter A, et al. The complete supraannular concept. *Circulation* 2009;120[suppl 1]:S139-S145.

For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use.



Europe  
Medtronic International Trading Sàrl  
Route du Molliau 31  
Case Postale  
CH-1131 Tolochenaz  
Switzerland  
Tel: +41 (0)21 802 70 00  
Fax: +41 (0)21 802 79 00

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