

# Cardioroot Aortic Graft Inspired by anatomy<sup>1</sup>

Solutions. Selection. Support.





For more than 40 years, surgeons have trusted Getinge to meet their clinical demands with durable cardiovascular grafts in anatomicallydesigned configurations. The versatile and unique anatomical design of the Cardioroot aortic graft supports all types of complex aortic root surgeries.



### Anatomical design

The Cardioroot innovative design mimics the anatomy and blood flow dynamics of the Valsalva natural sinuses.

- Provides optimum flow dynamics<sup>1,2</sup>
- Reproducing a near normal leaflet-sinus unit morphology thanks to anatomical reconstruction of the sinuses<sup>1</sup>
- Optimizes coronary flow dynamics<sup>1</sup>



## **Premium handling**

# Anatomical design of Cardioroot provides premium handling properties.

- Precise suturing of coronary buttons thanks to uncrimped bulge<sup>1</sup>
- Helps to relieve the stress on the coronary anastomoses<sup>3</sup>
- Designed to reduce operation time<sup>2</sup>
- Minimizes intraoperative bleeding thanks to collagen coating<sup>2</sup>
- Seamless, one piece design provides easy suturing and cutting



Cardioroot graft



Straight graft

# Versatility

Cardioroot is adaptable in all types of aortic root surgeries, which includes all types of reimplantation and remodeling techniques.<sup>1,4</sup>



Valve sparing procedure



Valve replacement procedure

## Safety and durability

Cardioroot demonstrated early and mid-term safety and effectiveness for the treatment of aneurysmal aortic root.<sup>1</sup>

- Expected benefits on the durability of the procedure<sup>1</sup>
- Proven safety in 1-year, follow-up study<sup>1</sup>
- Over 10 years of experience
- Maintaining a stable shape and size of the aortic root should prolong the durability of a sparing aortic valve procedure<sup>1</sup>

 $\begin{array}{c} \text{Peri-operative} \\ \text{mortality at 30-days}^1 \end{array} \\ \begin{array}{c} 1.9\% \\ \end{array} \end{array}$ 

Survival rate 92.6% at 1-year follow up<sup>1</sup>

No reports of graft-related adverse events, infection or occlusion<sup>1</sup>

### Physical properties Cardioroot Aortic Graft

Coated polyester fabric	Cross-linked Type I bovine collagen			
Construction	Woven			
Water permeability⁵	<5 ml/cm²/min at 120 mmHg			
3 Reference lines to facilitate proper device alignment <sup>2</sup>				



#### **Ordering information**

Body Diameter	Body Length	Bulge Diameter	Bulge Length	Collar Length	Reference
24 mm	15 cm	32 mm	24 mm	10 mm	HEWROOT0024
26 mm	15 cm	34 mm	26 mm	10 mm	HEWROOT0026
28 mm	15 cm	36 mm	28 mm	10 mm	HEWROOT0028
30 mm	15 cm	38 mm	30 mm	10 mm	HEWROOT0030
32 mm	15 cm	40 mm	132 mm	10 mm	HEWROOT0032
34 mm	15 cm	42 mm	34 mm	10 mm	HEWROOT0034

#### **References:**

1. Tasca G, Lindner J, Barandon L, et al. Aortic root surgery with the CARDIOROOT vascular graft: results of a prospective multicenter post-market surveillance study. J Cardiothorac Surg. 2019 May 21;14(1):94.

 Clinical Evaluation
Weltert L, De Paulis R, Scaffa R, et al. Re-creation of a sinuslike graft expansion in Bentall procedure reduces stress at the coronary button anastomoses: A finite element study. J Thorac Cardiovasc Surg. 2009 May;137(5):1082-7.

4. Urbanski PP, Frank S. New vascular graft for simplification of the aortic valve reimplantation technique. Interact Cardiovasc Thorac Surg. 2008 Aug;7(4):552-4.

5. Instructions for Use



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