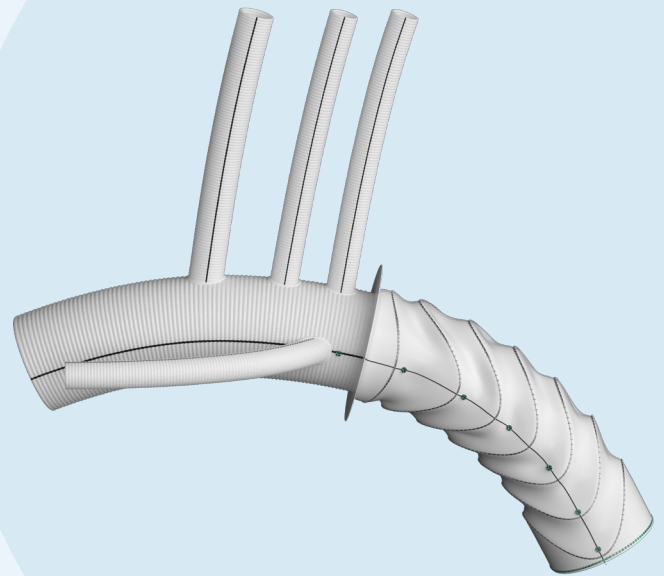
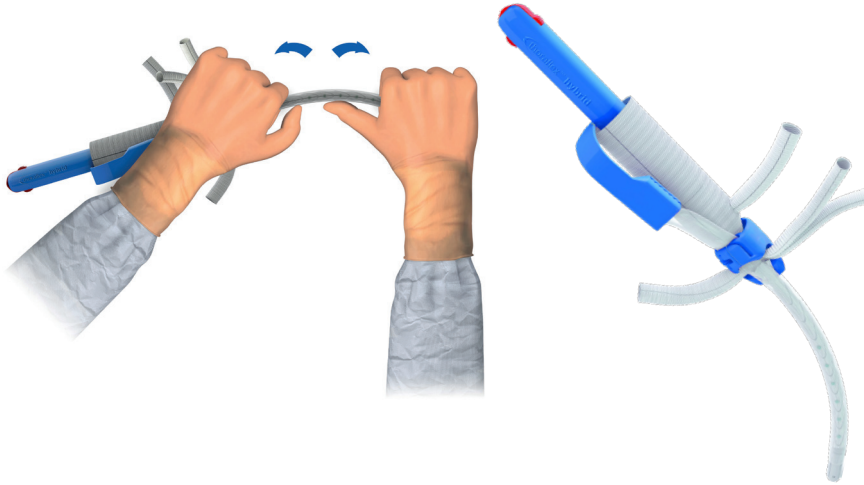


## **thoraflex™ hybrid**

Conforming Arch  
Surgery to the  
Gold Standard



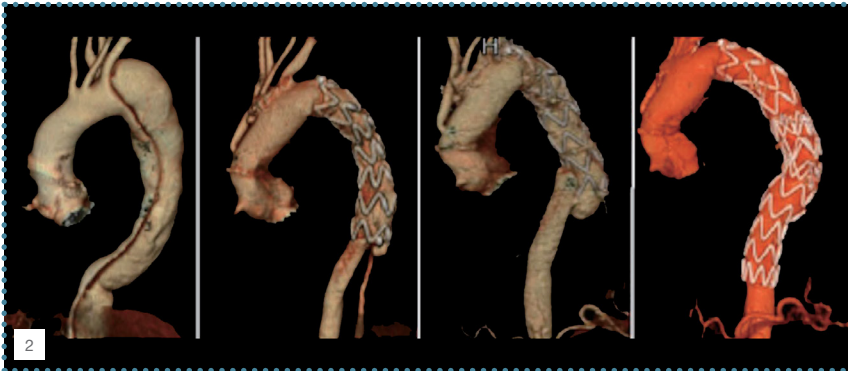
# Flexible by Design, Navigating the Curve



“Thanks to the **malleable shaft**, the stented part can be shaped to conform to the isthmus and descending aorta anatomy. This makes the device **less traumatic on the descending aortic wall and easier to introduce into the aorta.**”<sup>1</sup>

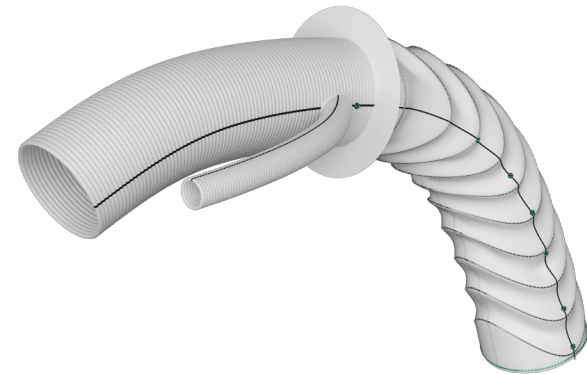
## Flexible Ring Stent Design

- ▶ Reduces radial force on the aortic wall<sup>3</sup>
- ▶ Minimises risk of intimal injury<sup>3</sup>



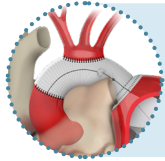
Z-Stent FET - Angio-CT 3D reconstruction of type B aortic dissection before surgery (A), after FET procedure (B), dSINE detection (C) and result after TEVAR (D).

CT, computed tomography; 3D, three-dimensional; FET, frozen elephant trunk; dSINE, distal stent graft-induced new entry; TEVAR, thoracic endovascular aortic repair.<sup>2</sup>

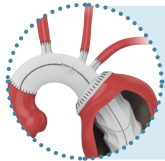
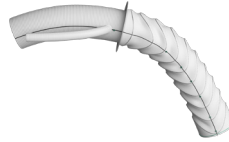


1. Ruggieri et al. “Multibranch hybrid device for frozen elephant trunk: what does it change?” The Journal of Thoracic & Cardiovascular Surgery, 2015; 15(1), 253-255.  
 2. Murana et al. “Distal stent graft-induced new entry (dSINE) after frozen elephant trunk: a scoping review.” Cardiovascular Diagnosis & Therapy, 2023; 13(2), 408-417.  
 3. Ma et al. “Open stented grafts for frozen elephant trunk technique: Technical aspects and current outcomes.” Aorta, 2015; 3(4), 122-135.

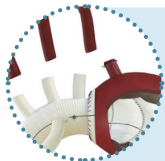
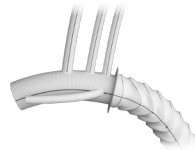
# Versatility in Treatment, Solutions for Each Patient



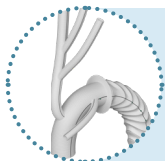
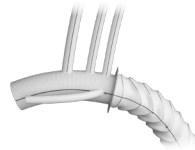
Island/En Bloc  
Re-implantation of SAT\*



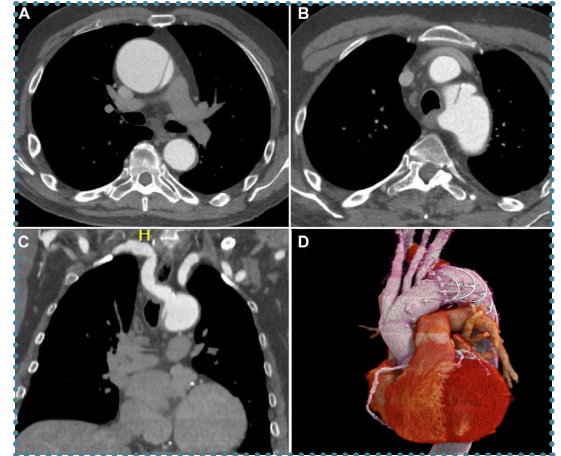
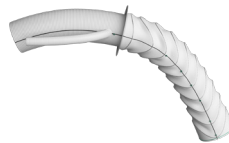
Zone 3  
Standard technique



Zone 2  
Distal LSA\*\* anastomosis



Zone 0/1  
Branch first technique



“The use of a specifically designed multibranched hybrid FET graft both simplifies the procedure and allows **more flexibility in dealing with challenging aortic arch anatomy**, such as in our patient with a KD and an ARSA”<sup>4</sup>

“The hybrid construction of the device provides **flexibility in planning further aortic reconstruction** using either endovascular or open techniques. Unlike other methods of hybrid and total endovascular arch repair, this technique appears to carry a **low stroke risk**.”<sup>5</sup>



WATCH ON VUMEDI  
LSA Proximal Technique  
with Thoraflex™ Hybrid

4. Besa et al. "Hybrid frozen elephant trunk for single-stage Kommerell Diverticulum and type A dissection." *Annals of Thoracic Surgery Short Reports*, 2023; 1, 285-288.  
5. Landau et al. "Thoraflex Hybrid endovascular frozen elephant trunk device for treatment of complex aortic arch disease." *Journal of Vascular Surgery*, 2017; Abstract e68.  
\*SAT = Supra-Aortic Trunk  
\*\*LSA = Left Subclavian Artery



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