

# Endovascular Thoracic Solutions

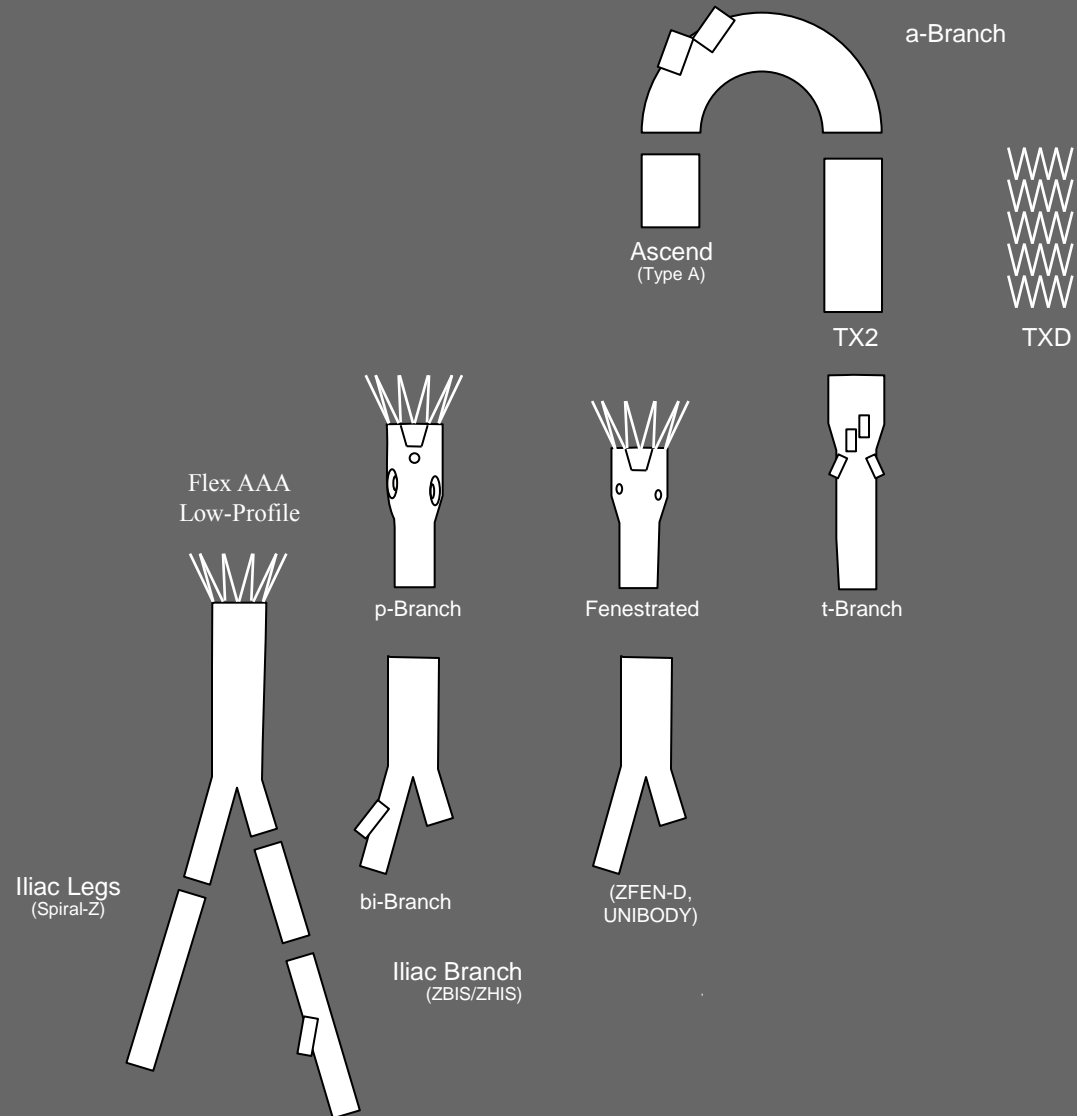
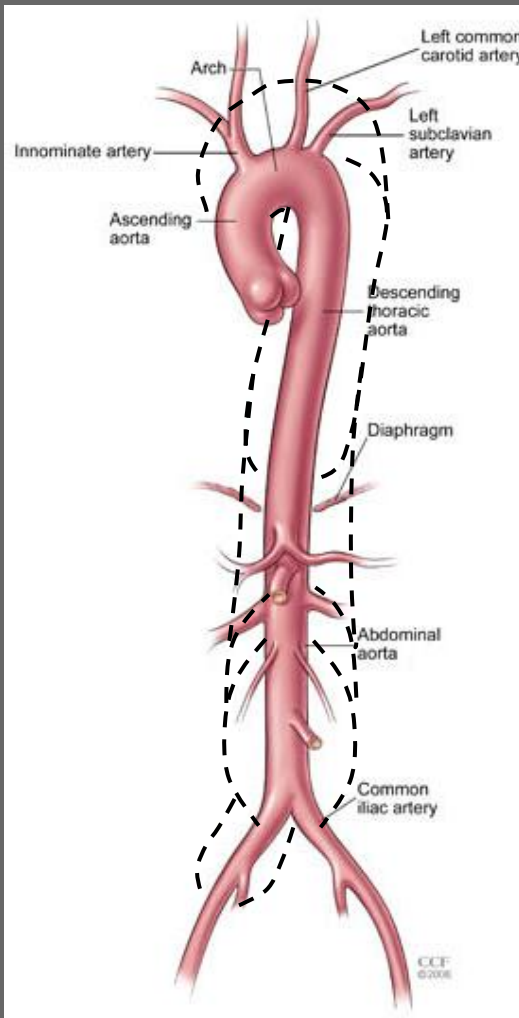
Tilo Kölbel, MD  
German Aortic Center Hamburg  
University Heart Center  
Hamburg, Germany

CONTROVERSES  
ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES  
& UPDATES  
IN VASCULAR SURGERY  
JANUARY 17-19 2013

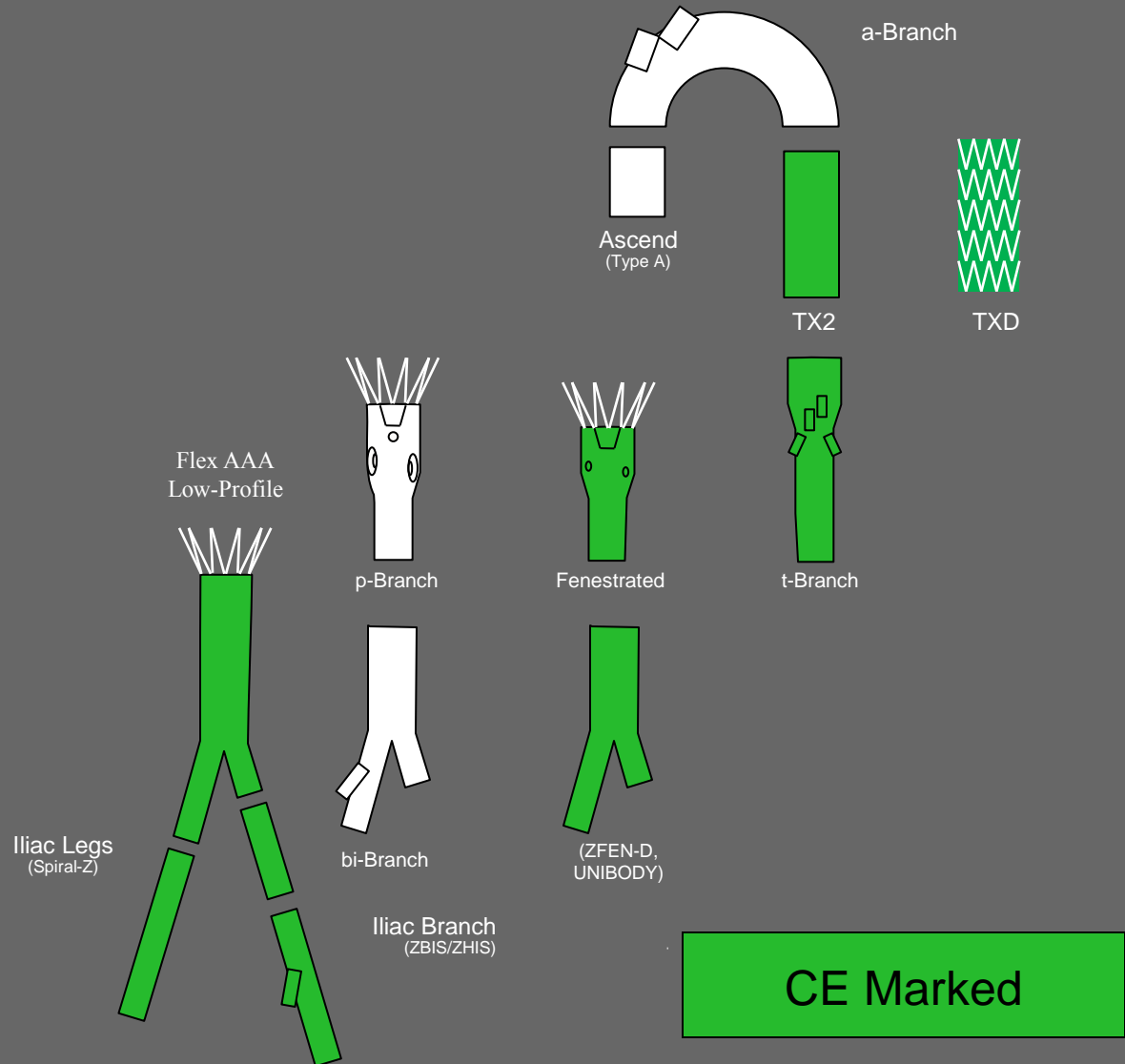
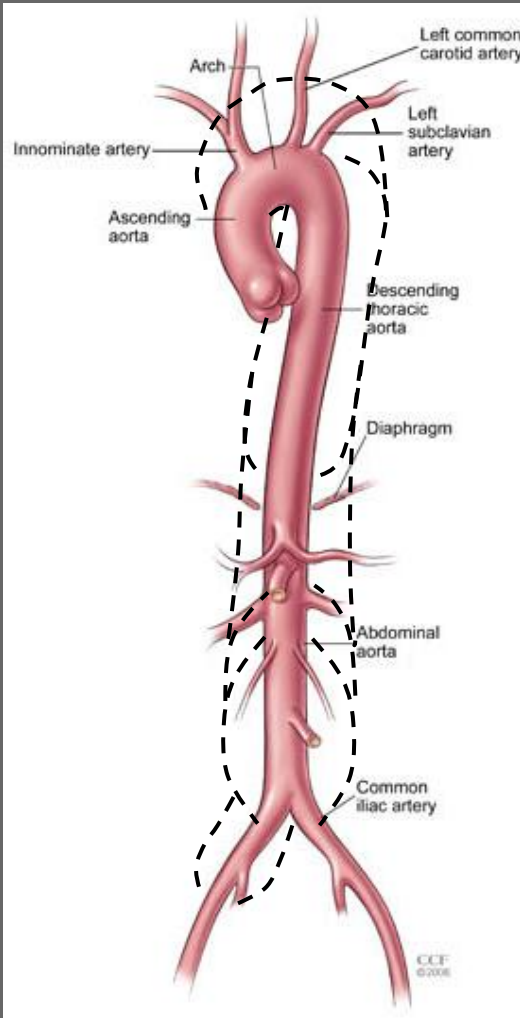
MARRIOTT RIVE GAUCHE & CONFERENCE CENTER  
PARIS, FRANCE



# Zenith® System of Devices



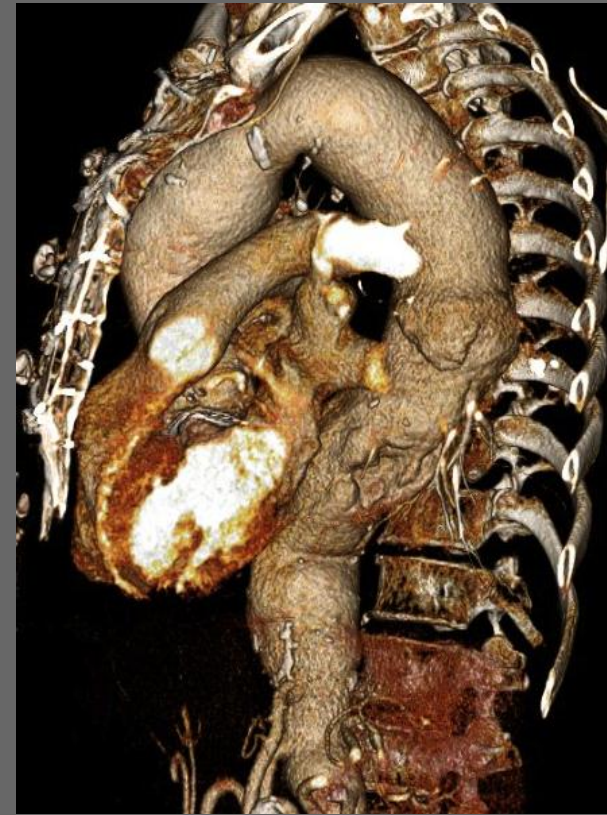
# Zenith® System of Devices





"Are you sure 'One Size Fits All' is a designer label?"

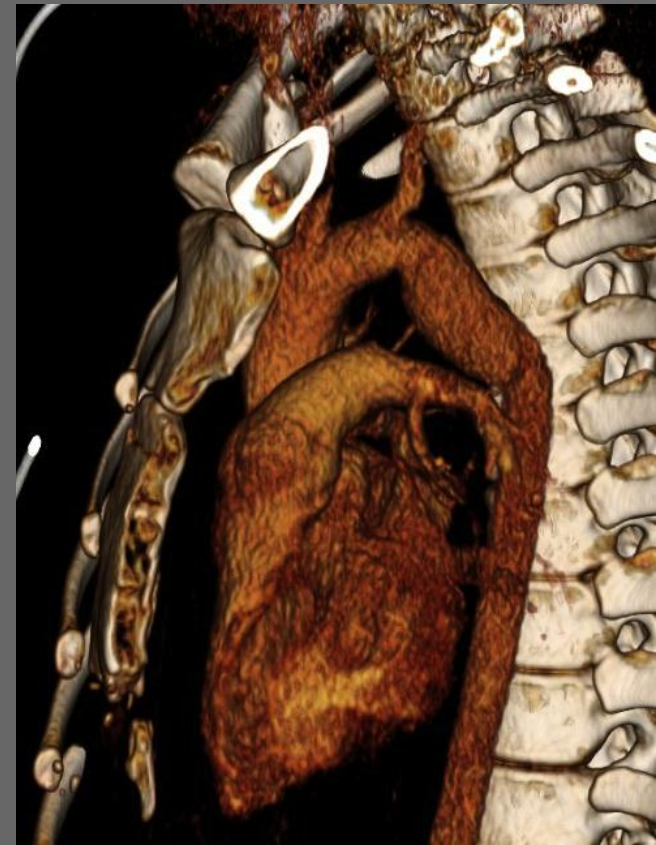
# Disease Specific Solutions



Aneurysm



Dissection

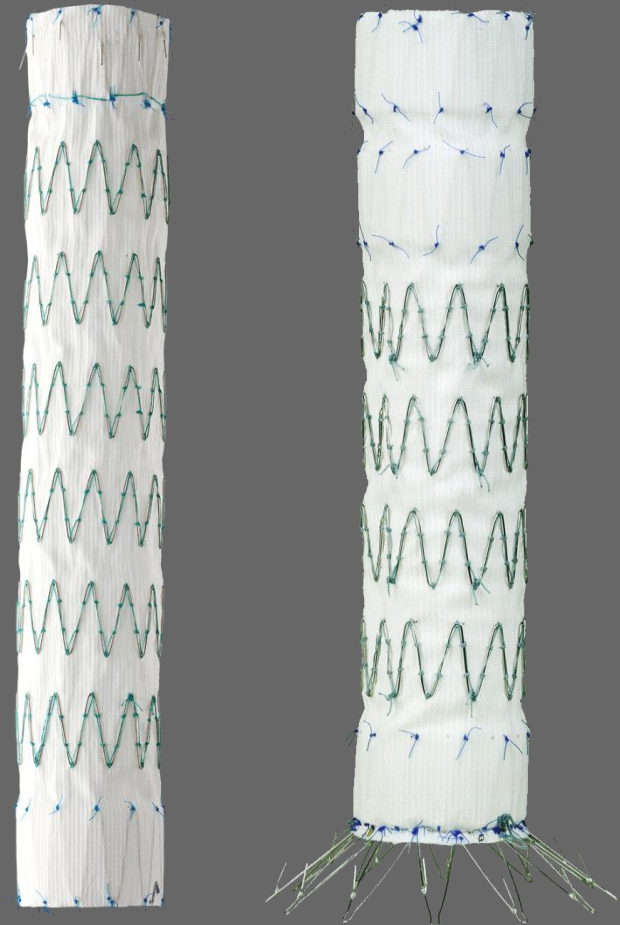


Transsection

# Zenith<sup>®</sup> TX2 ProForm<sup>®</sup>

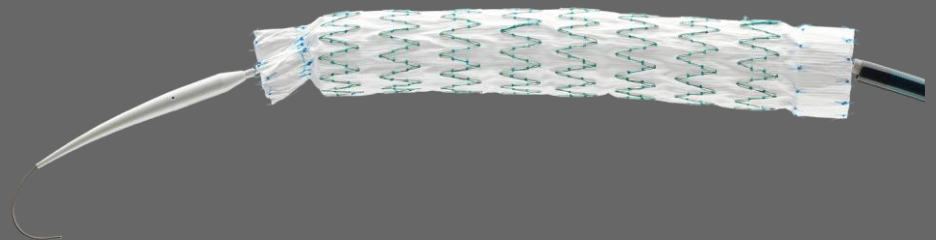
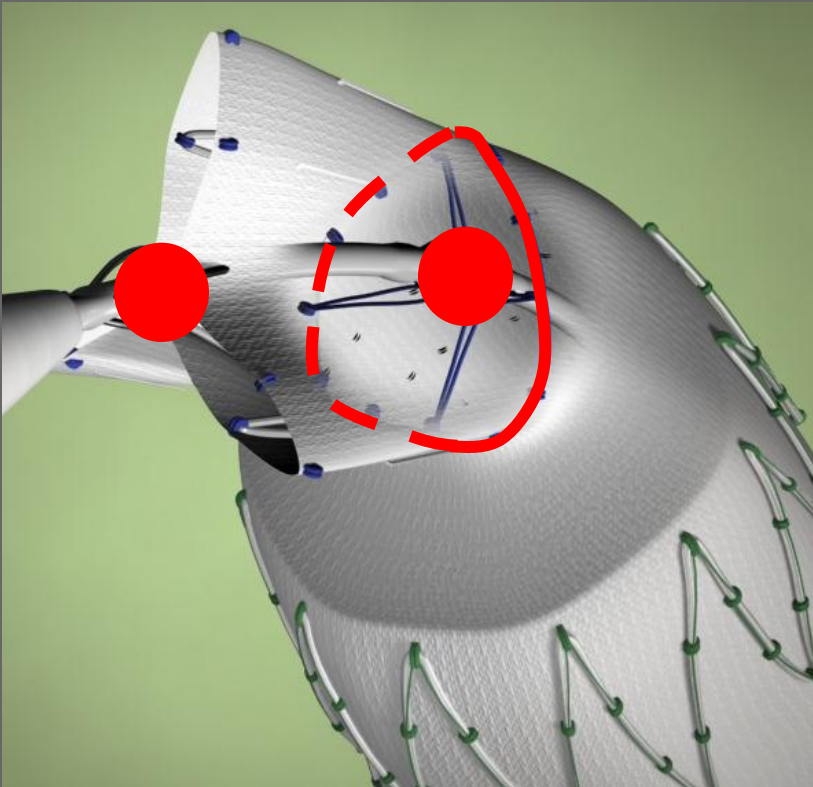
## ZTEG

- Two-piece modular system
- Internal top stent and bottom stent
- Circumferentially staggered barbs
- Distal component with bottom uncovered stent with barbs
- Tapered and reversed-tapered
- Controlled deployment by ProForm



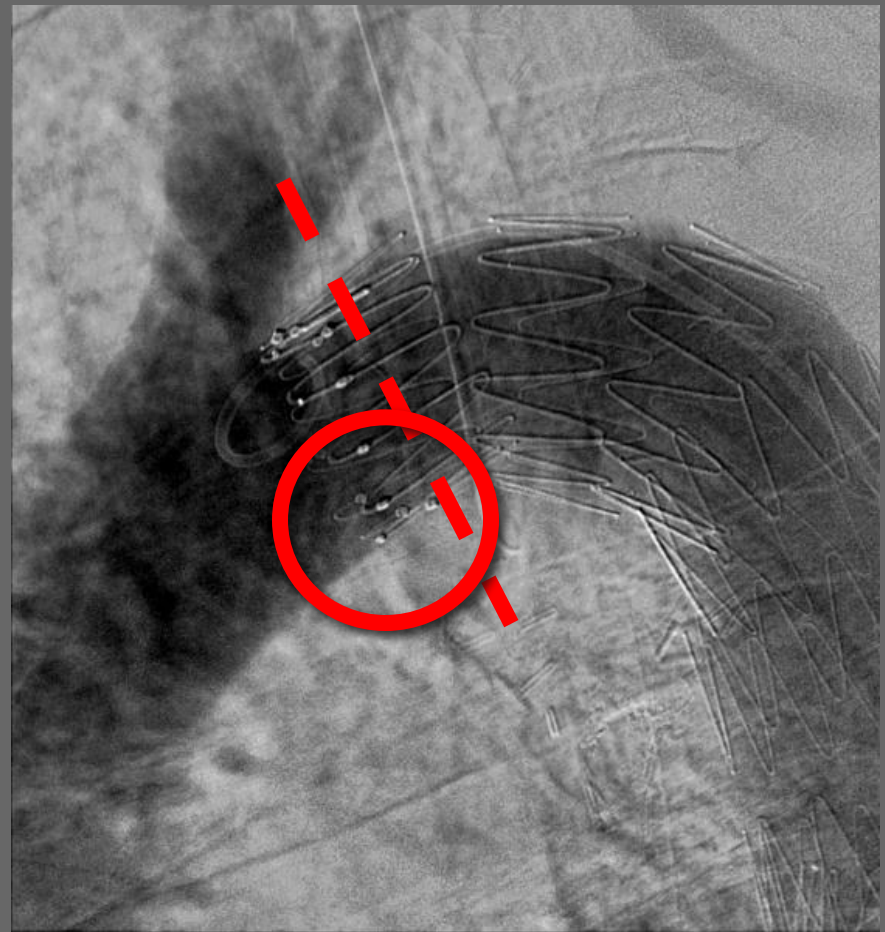
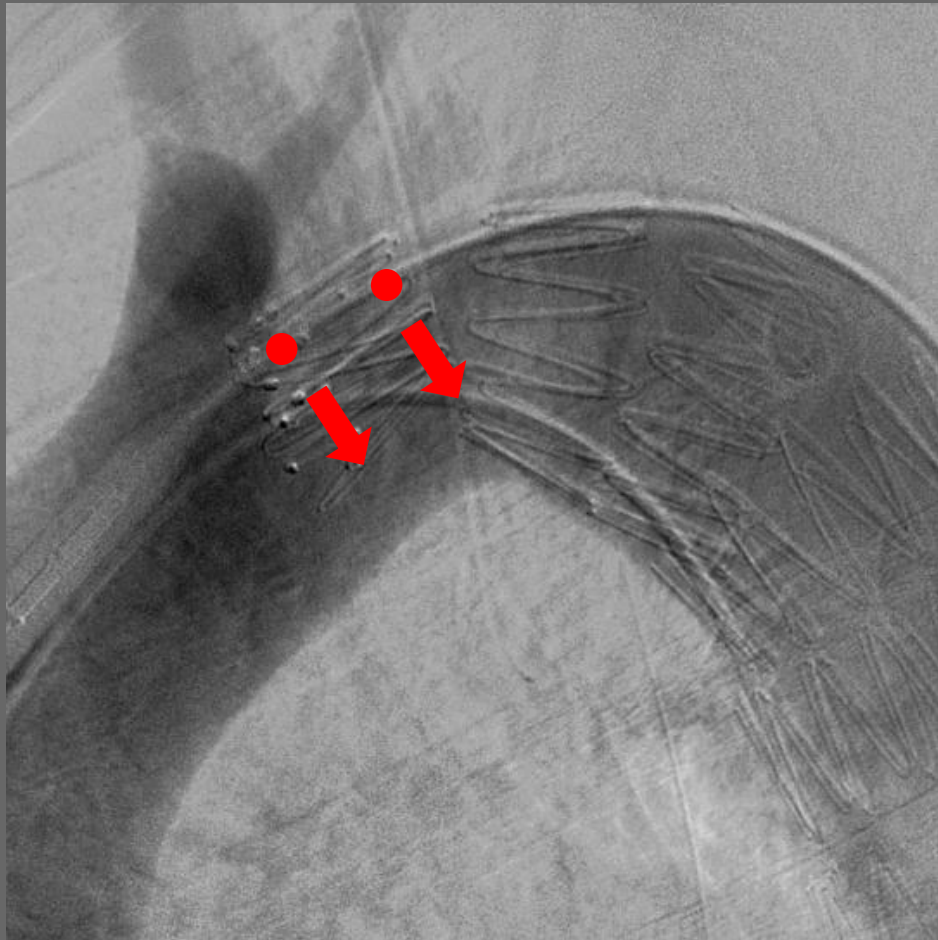
# Zenith<sup>®</sup> TX2 ProForm<sup>®</sup>

- Controlled Deployment by ProForm



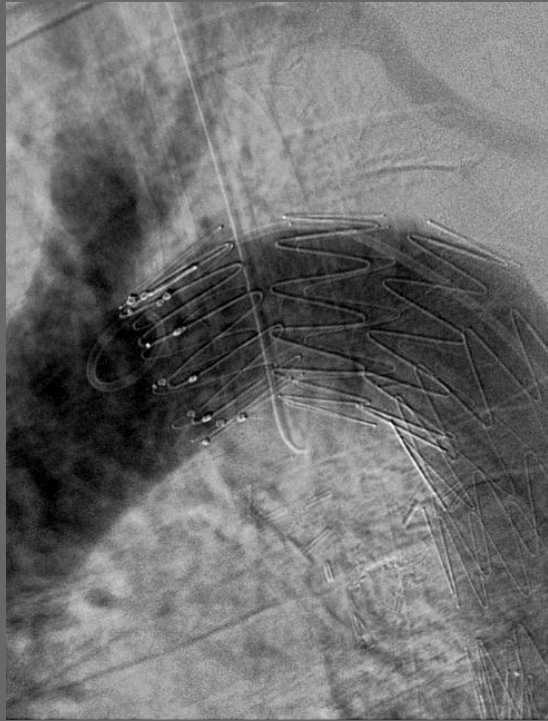
# Zenith<sup>®</sup> TX2 ProForm<sup>®</sup>

- Controlled Deployment by ProForm

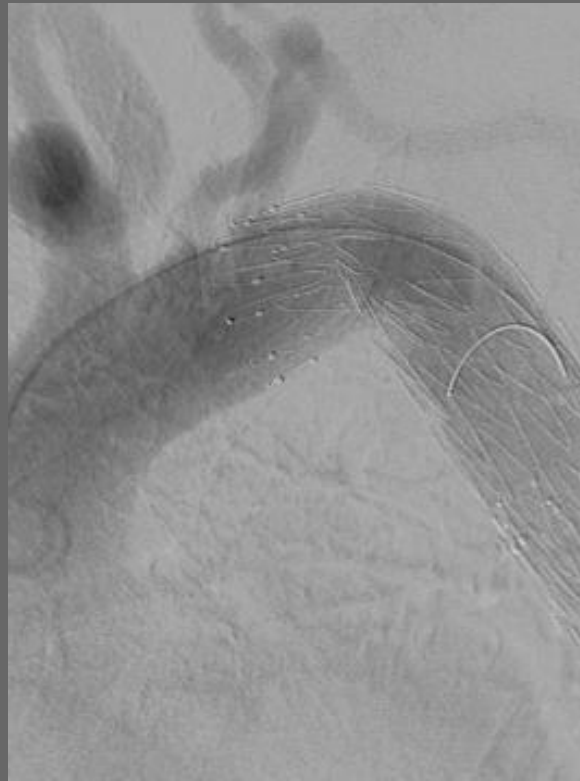




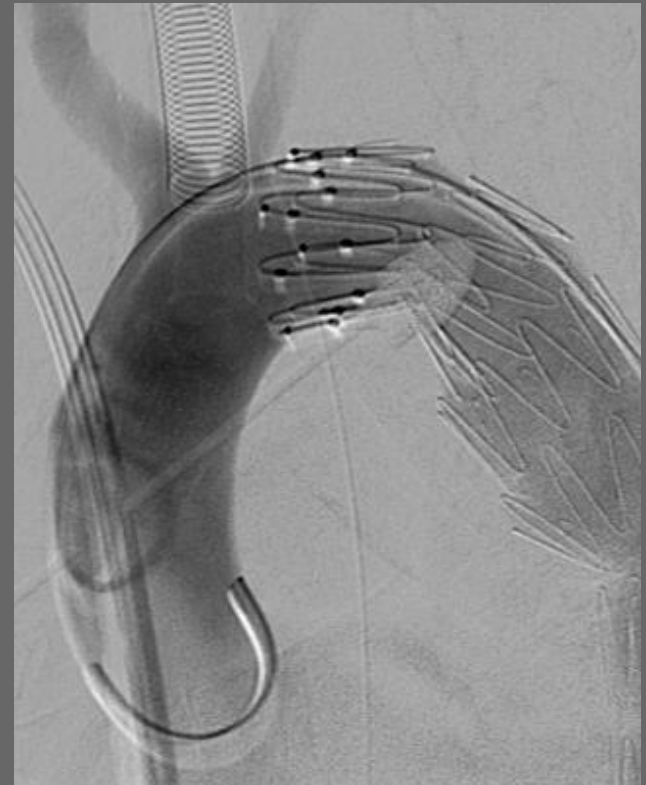
# Zenith® TX2 ProForm®



Aneurysm



Dissection

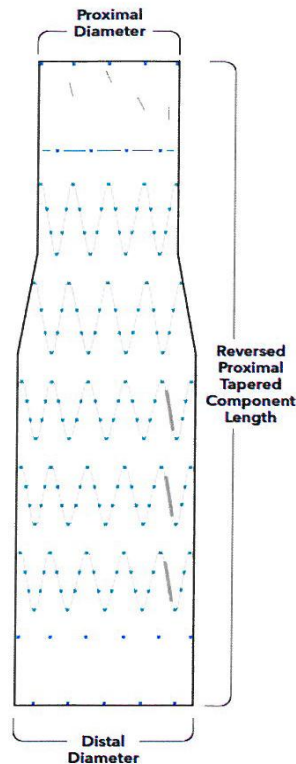


Transsection

# Zenith<sup>®</sup> TX2 ProForm<sup>®</sup>

- New: reversed tapered

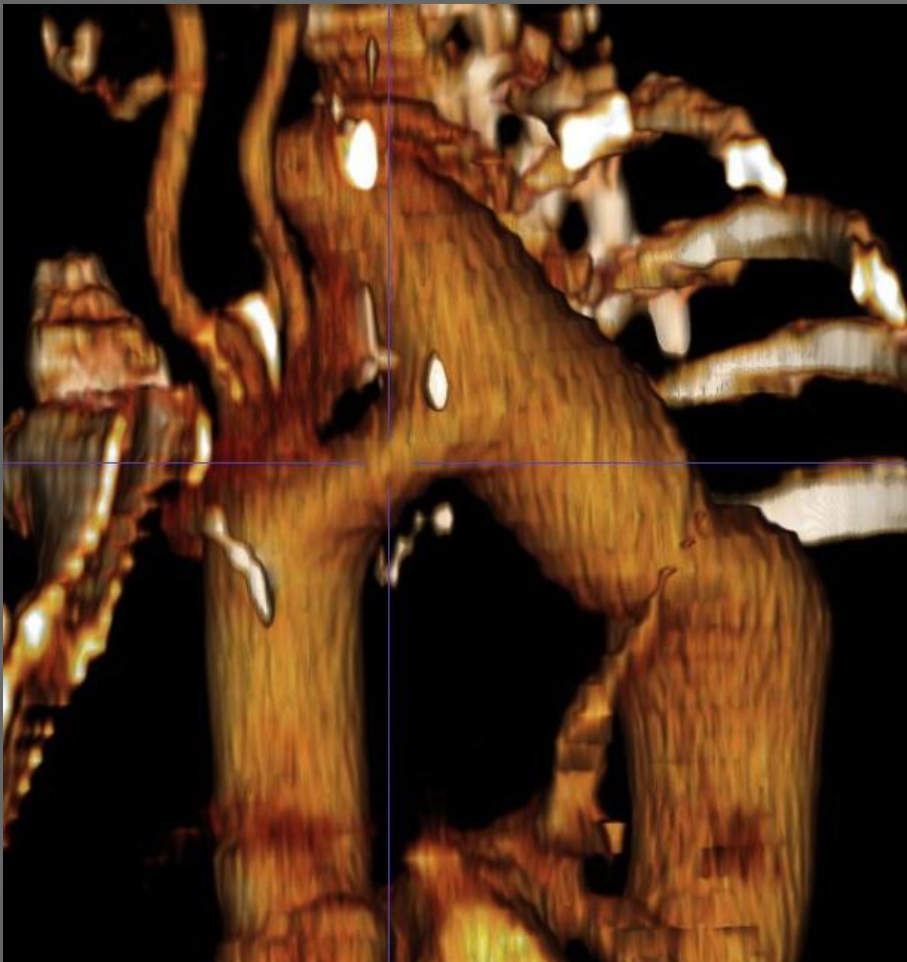
## Reversed Proximal Tapered Components



Reference Part Number	Component Type	Proximal Diameter mm	Distal Diameter mm	Length mm	Introducer Sheath ID/OD Fr/mm
<b>32 mm Diameter</b>					
ZTEG-2PT-26-32-162-PF	2PT	26	32	162	20/7.7
ZTEG-2PT-26-32-202-PF	2PT	26	32	202	20/7.7
<b>34 mm Diameter</b>					
ZTEG-2PT-28-34-150-PF	2PT	28	34	150	20/7.7
ZTEG-2PT-28-34-194-PF	2PT	28	34	194	20/7.7
<b>36 mm Diameter</b>					
ZTEG-2PT-30-36-167-PF	2PT	30	36	167	22/8.5
ZTEG-2PT-30-36-192-PF	2PT	30	36	192	22/8.5
<b>38 mm Diameter</b>					
ZTEG-2PT-32-38-167-PF	2PT	32	38	167	22/8.5
ZTEG-2PT-32-38-192-PF	2PT	32	38	192	22/8.5
<b>40 mm Diameter</b>					
ZTEG-2PT-34-40-160-PF	2PT	34	40	160	22/8.5
ZTEG-2PT-34-40-214-PF	2PT	34	40	214	22/8.5
<b>42 mm Diameter</b>					
ZTEG-2PT-36-42-160-PF	2PT	36	42	160	22/8.5
ZTEG-2PT-36-42-214-PF	2PT	36	42	214	22/8.5

# Zenith<sup>®</sup> TX2 ProForm<sup>®</sup>

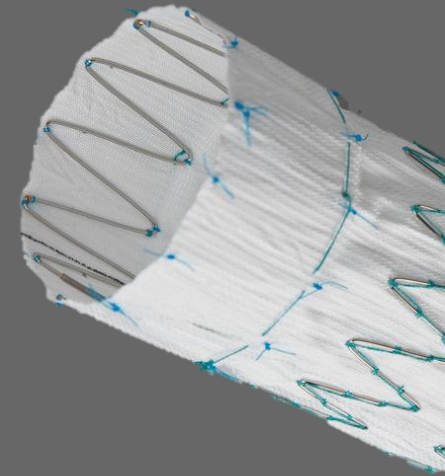
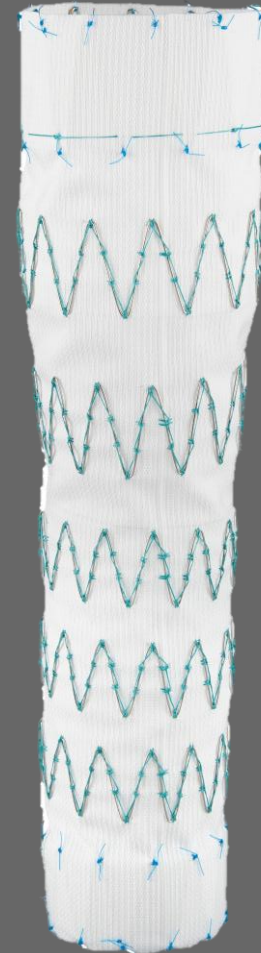
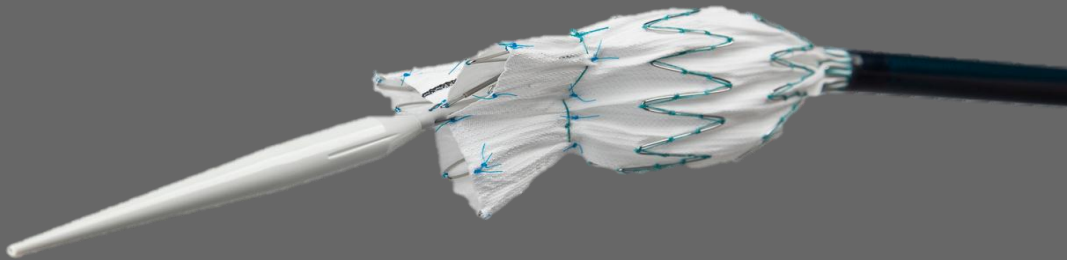
- New: reversed tapered



# Zenith<sup>®</sup> Dissection Endovascular Graft

## ZDEG

- No Barbs
- Proximal component only
- Tapered (4mm) + double tapered (19mm)
- Controlled deployment by ProForm



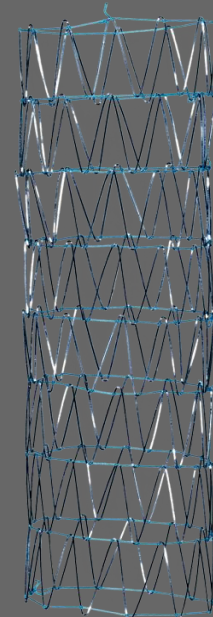
# Zenith<sup>®</sup> Dissection Endovascular Graft



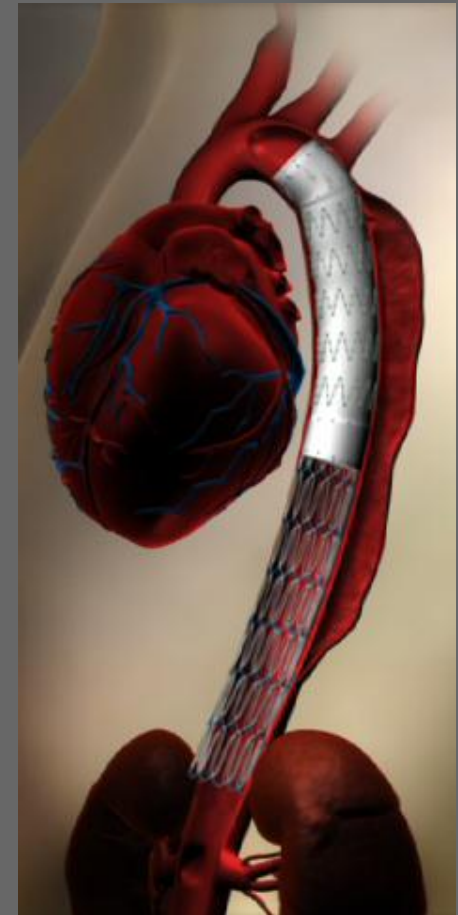
# Zenith<sup>®</sup> Dissection Endovascular Stent

## GZSD

- Designed for true lumen reinforcement
- Limits aortic coverage
- Stainless steel Z-stents with monofilament suture
  - Diameter 36 and 46 mm
  - Lengths 82, 123, 164 mm
- Tethered to the delivery system
- Coaxial introduction
- Controlled deployment

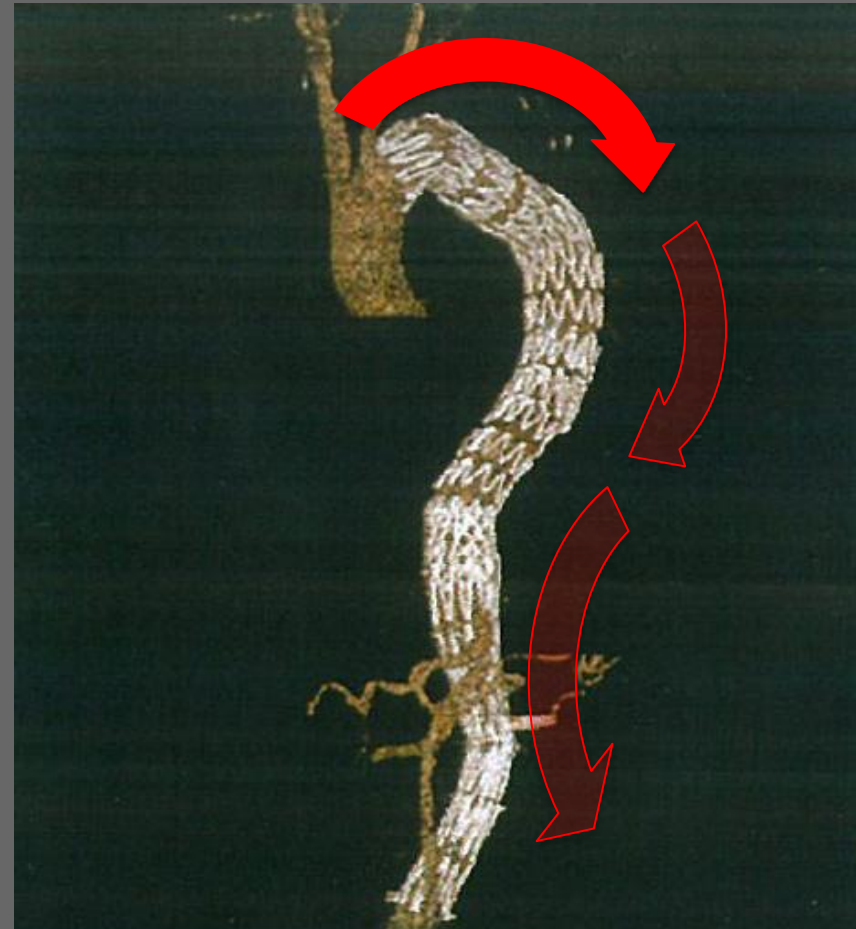
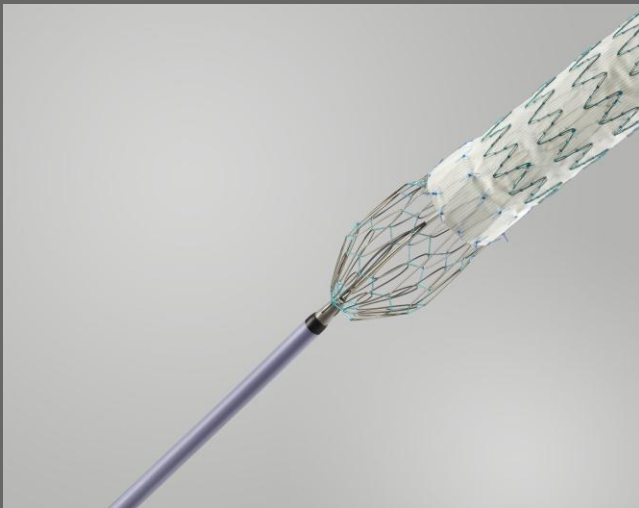
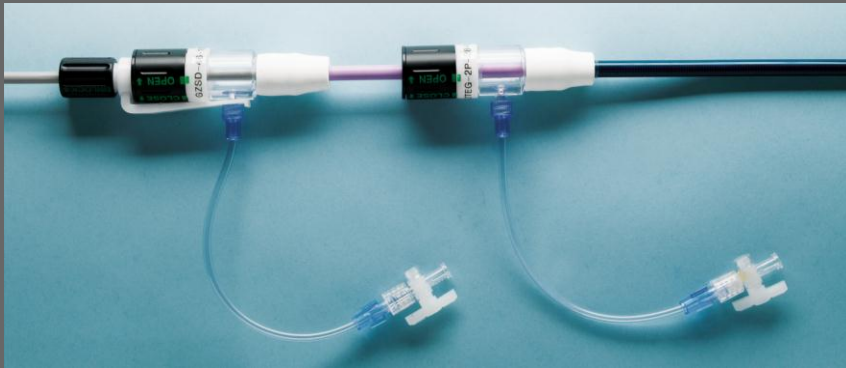


GZSD

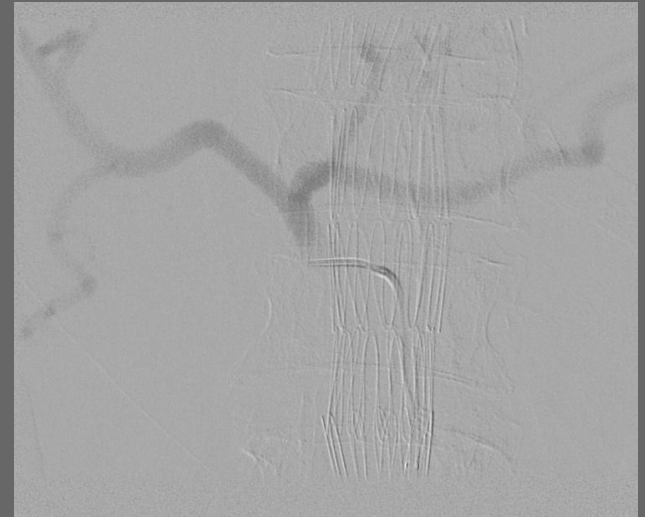


# Zenith® Dissection Endovascular Stent

- Coaxial introduction



# Zenith<sup>®</sup> Dissection Endovascular Stent





# Zenith<sup>®</sup> Dissection Endovascular Stent

Preop.



3 Mon.



12 Mon.



# Zenith<sup>®</sup> T-Branch: Off the Shelf Thoracoabdominal Endograft

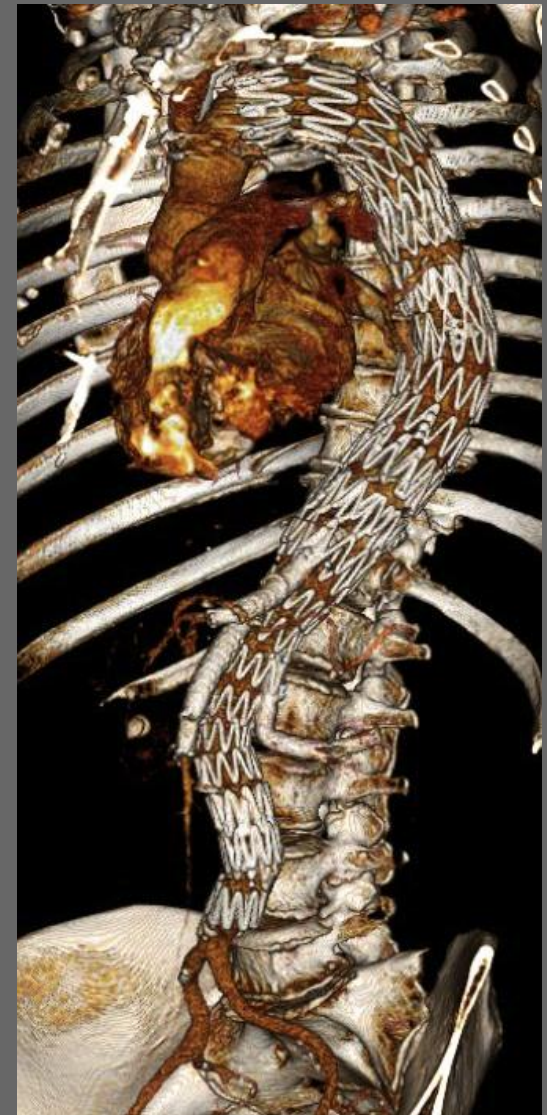
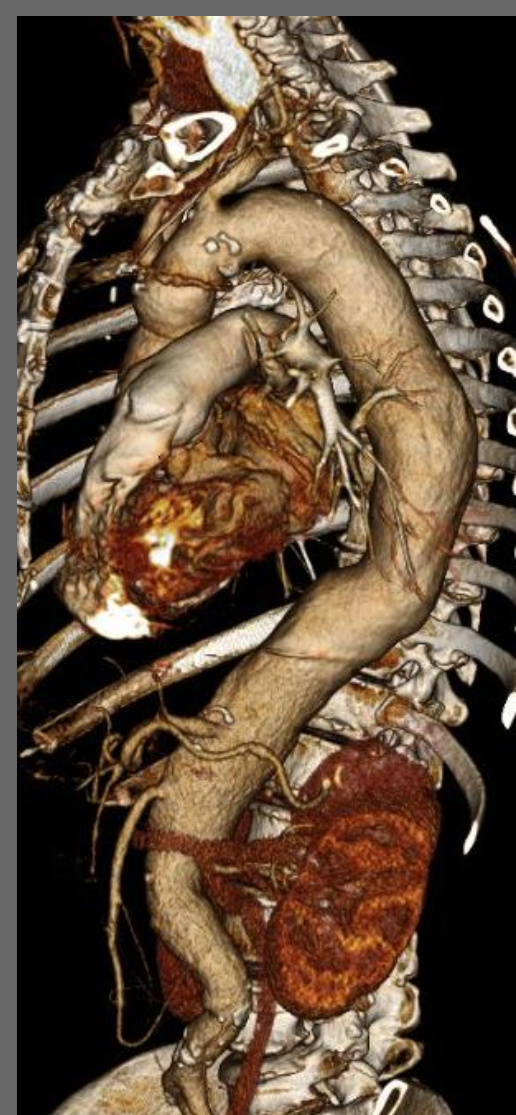
## T-Branch:

- Off-the-shelf 4-branch design
- Proximal and distal trigger-wire control
- Active Fixation
- Modularity
- Z-Stents and Polyester Fabric
- Flexor<sup>®</sup>/Captor<sup>®</sup> Delivery System
- Urethane tip and nitinol cannula
- Diameter Ties



CE Mark June 2012

# Zenith<sup>®</sup> T-Branch: Off the Shelf Thoracoabdominal Endograft



# Zenith<sup>®</sup> Horizon: Future Devices

When the Current line will not treat all

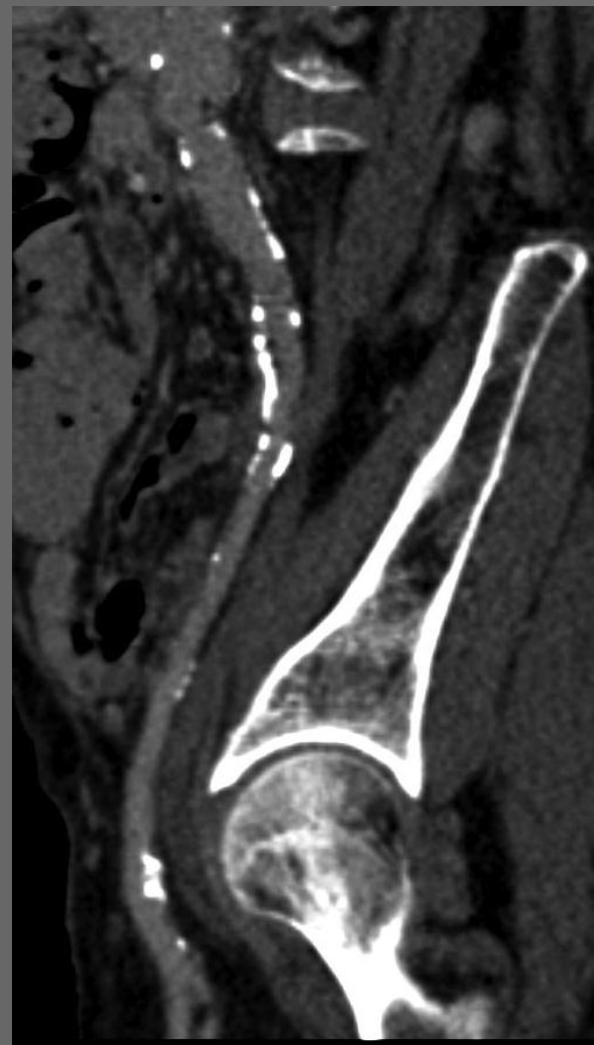
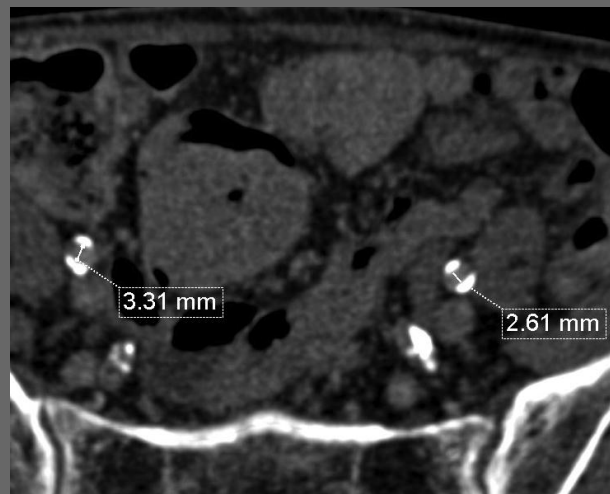
# Zenith<sup>®</sup> Thoracic Low Profile Graft

## ZTLP

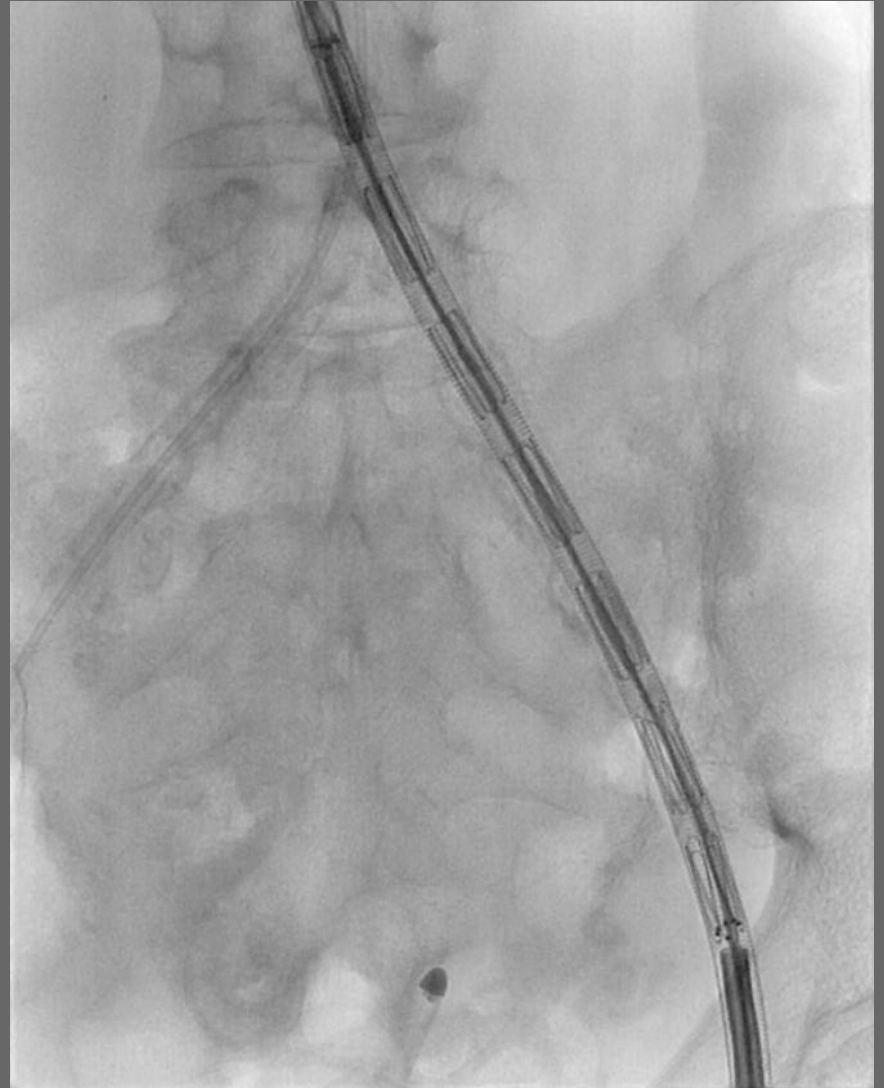
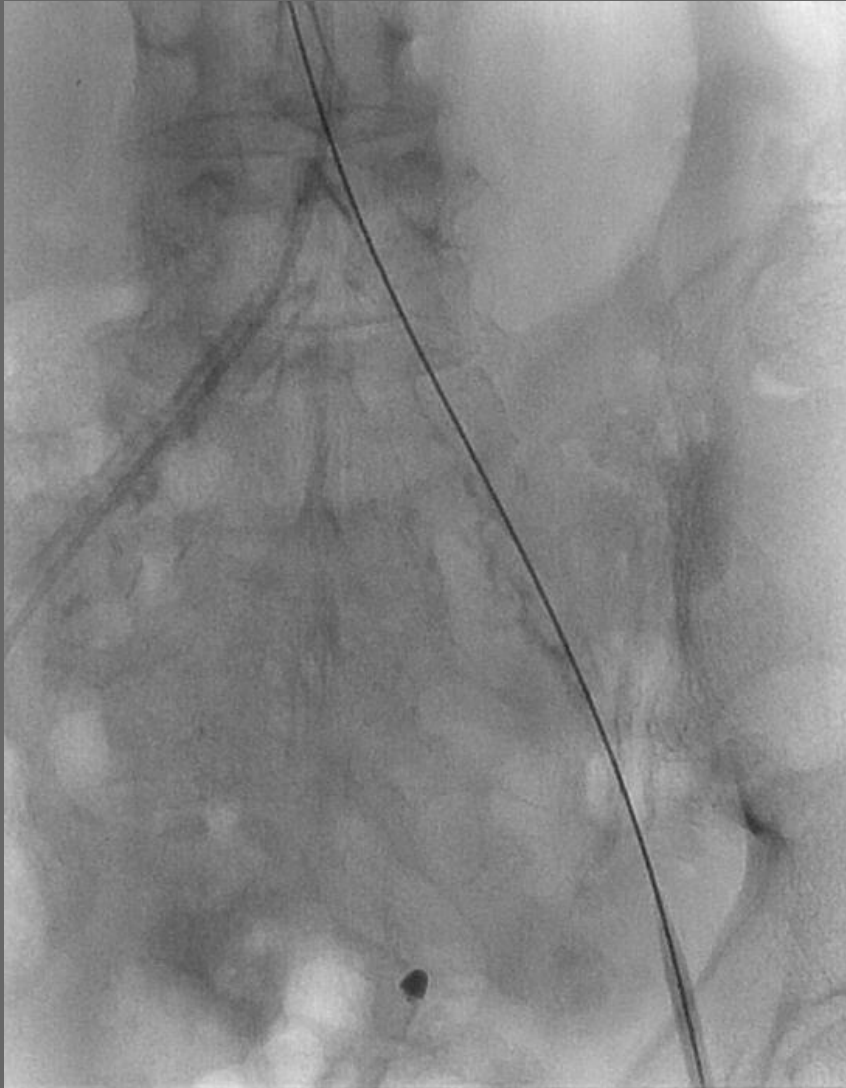
- 16-20F sheath (4F reduction)
  - Low-profile high density Dacron fabric
  - Nitinol stents
- Diameters 18-46 mm
- Proximal uncovered stent
- Two-piece modular system
- Distal component with bottom uncovered stent with barbs
- Internal top stent and bottom stent
- Circumferentially staggered barbs
- Tapered components
- Controlled deployment by ProForm (38-46mm)



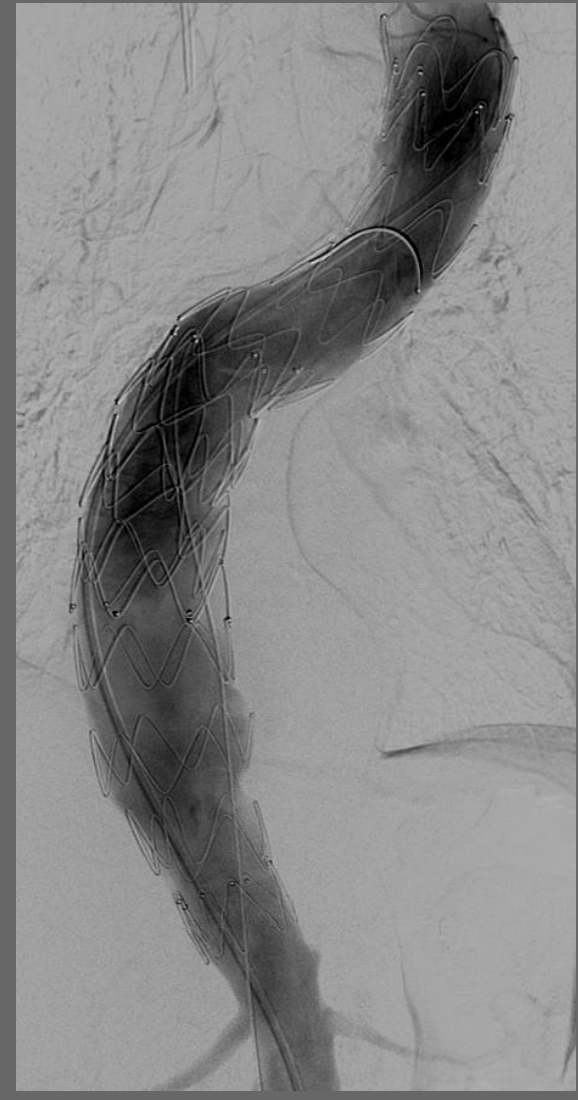
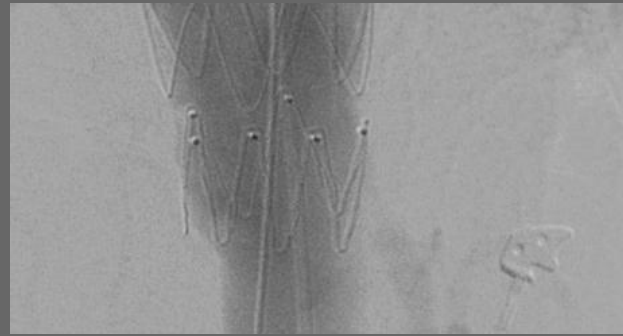
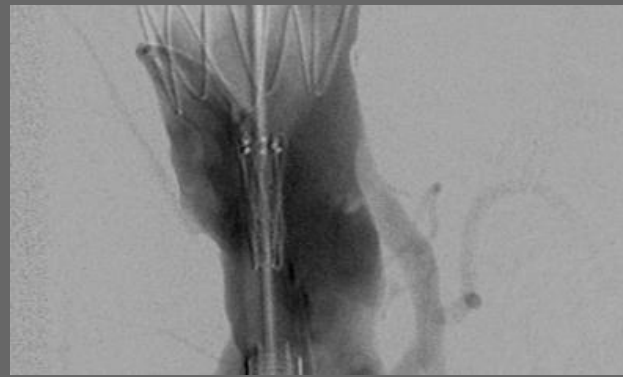
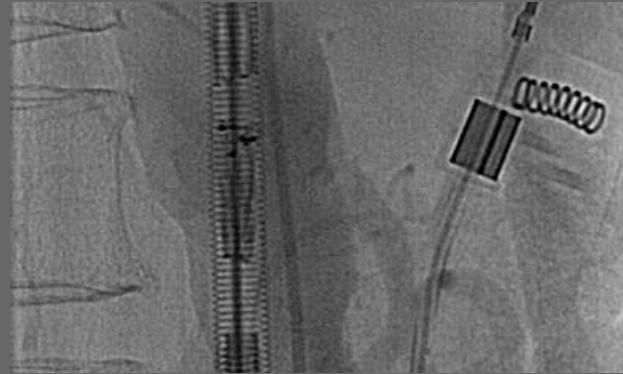
# Zenith<sup>®</sup> Thoracic Low Profile Graft



# Zenith<sup>®</sup> Thoracic Low Profile Graft

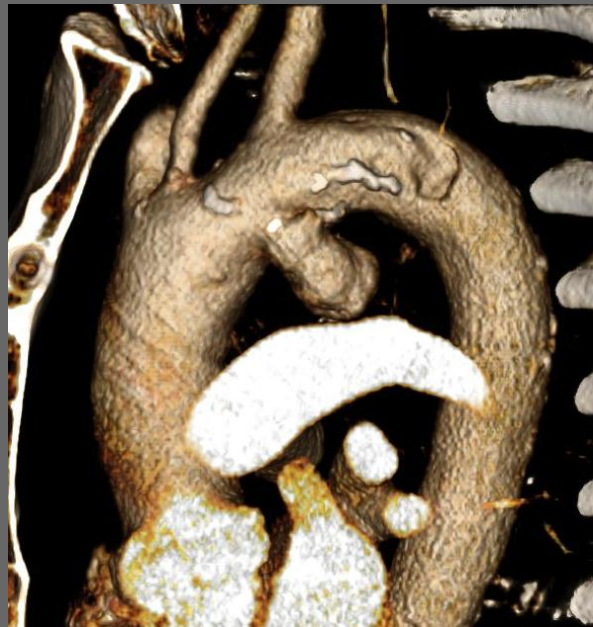
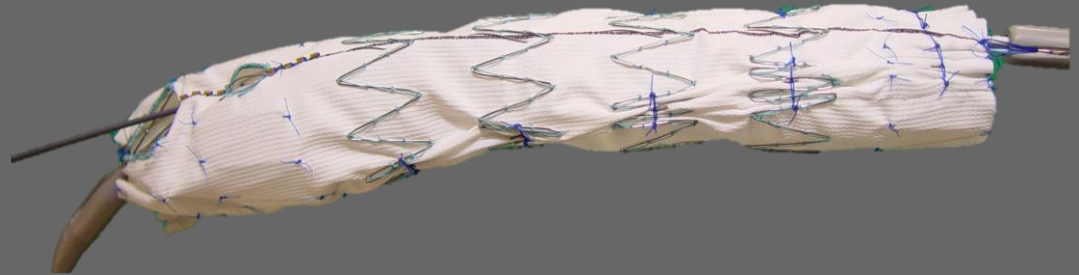
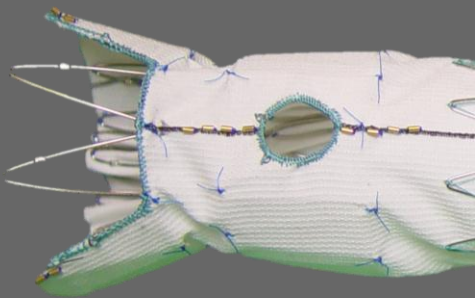


# Zenith<sup>®</sup> Thoracic Low Profile Graft





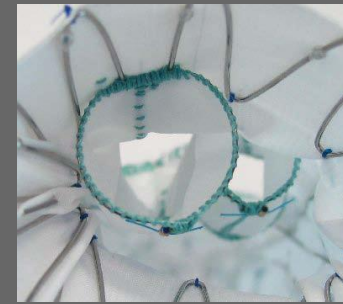
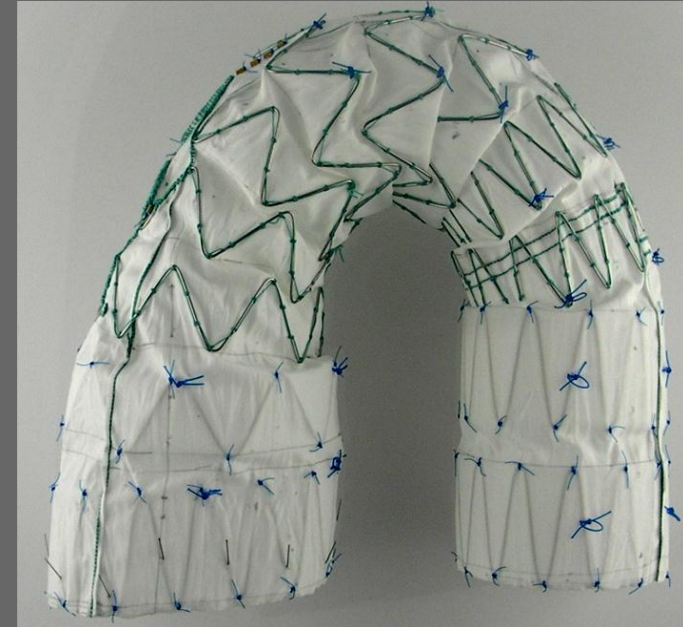
# Zenith<sup>®</sup> TX2 Fenestrated



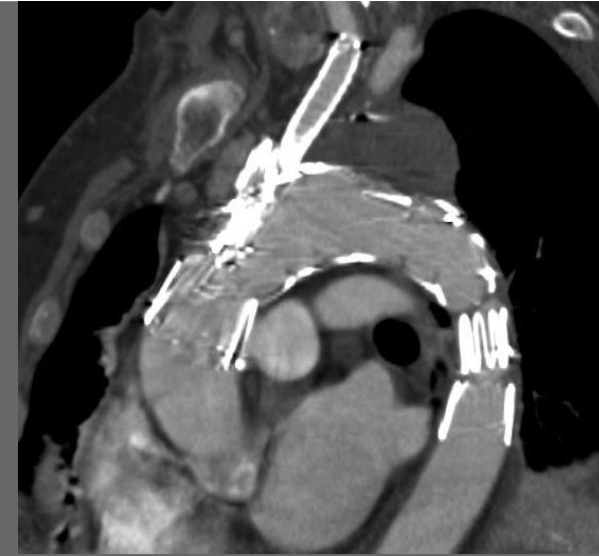
# Zenith<sup>®</sup> A-Branch: Branched Arch Endograft

## A-Branch:

- Arch aneurysms
- Internal side-branches
- Nitinol & stainless steel Z-stents
- Low-profile high density dacron fabric
- Self orienting delivery system
- Controlled deployment



# Zenith<sup>®</sup> A-Branch: Branched Arch Endograft

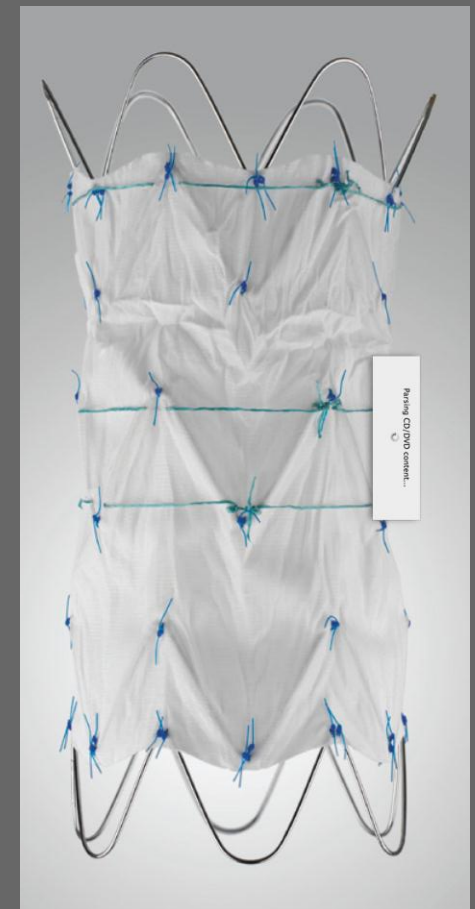


# Zenith<sup>®</sup> Ascend

## Low Profile Endovascular Graft

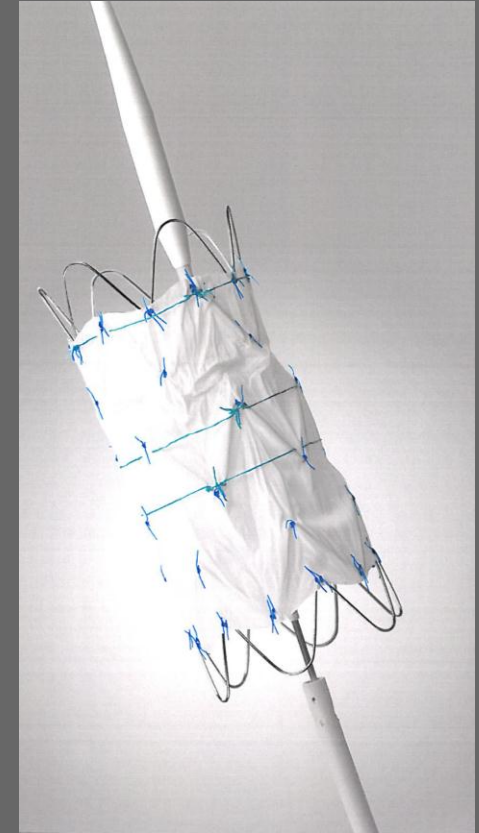
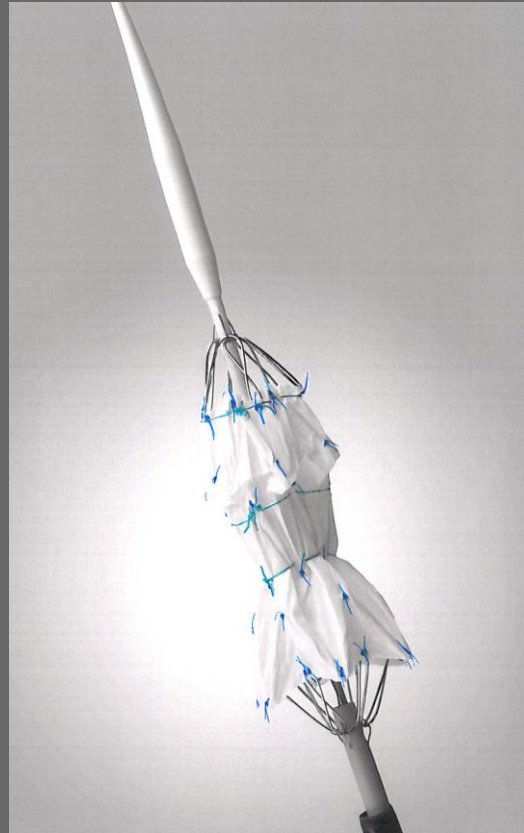
### ZTLP-A

- Type A Dissection
- Low Profile (16-20F)
- Proximal and distal Barestents
- Length: 65mm/83mm
- Controlled Deployment: ProForm
- 100cm Sheath length
- 28mm – 46mm Diameter

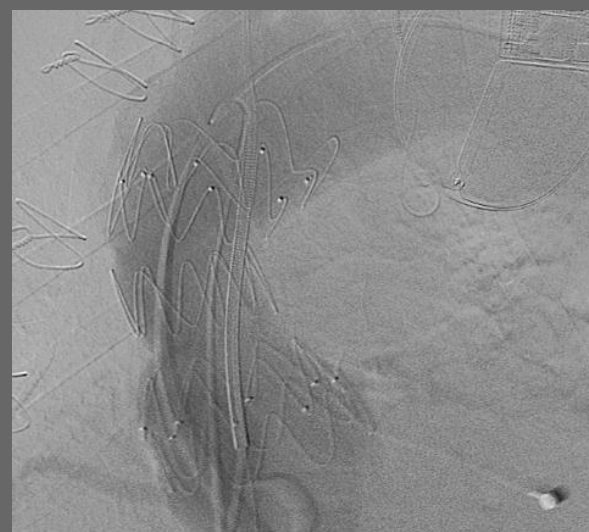
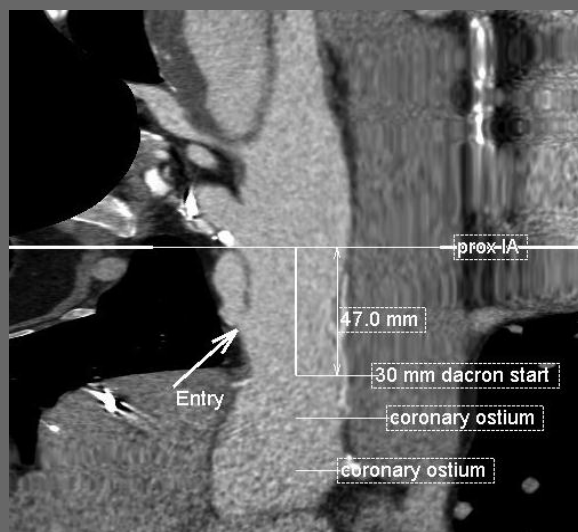


# Zenith<sup>®</sup> Ascend Branched Arch Endograft

Controlled Deployment



# Zenith Ascend Low Profile Endovascular Graft



# Summary

- **Zenith solutions for all aortic segments**
- **Disease specific solutions**
- **Low profile**
- **Off-the shelf**
- **Controlled deployment**

