



Zenith Flex®
AAA ENDOVASCULAR GRAFT

Transcend: Precision

Planning and Sizing
(includes Spiral-Z™ AAA Iliac Leg
and Z-Trak® Introduction System)

Planning and Sizing

Obtain the recommended CT and angiography.

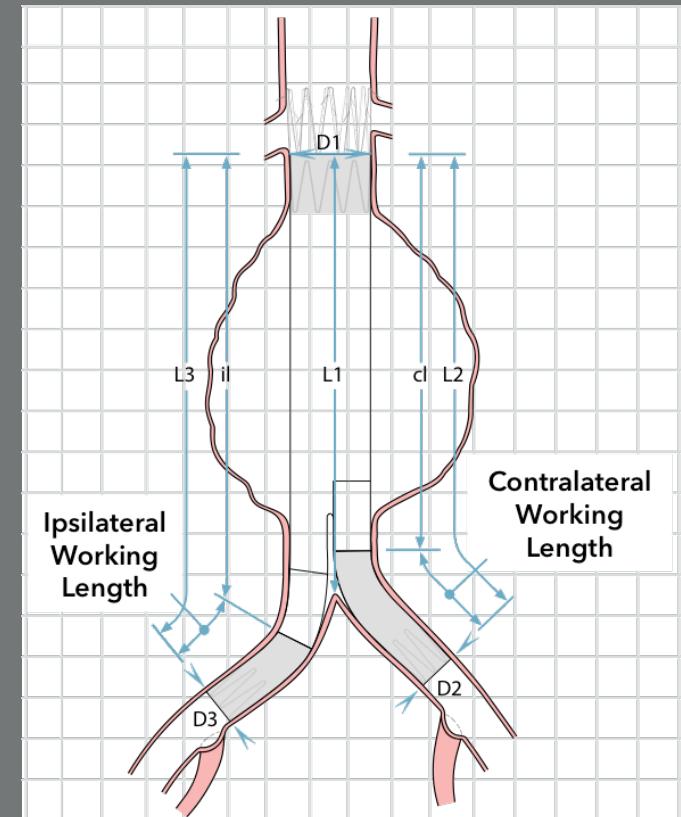
Follow these five recommended steps:

1. Select the side for main body introduction and fixation sites.
2. Obtain and note anatomical measurements on the worksheet.
3. Select the main body.
4. Select the contralateral iliac leg.
5. Select the ipsilateral iliac leg.

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Measurements Needed

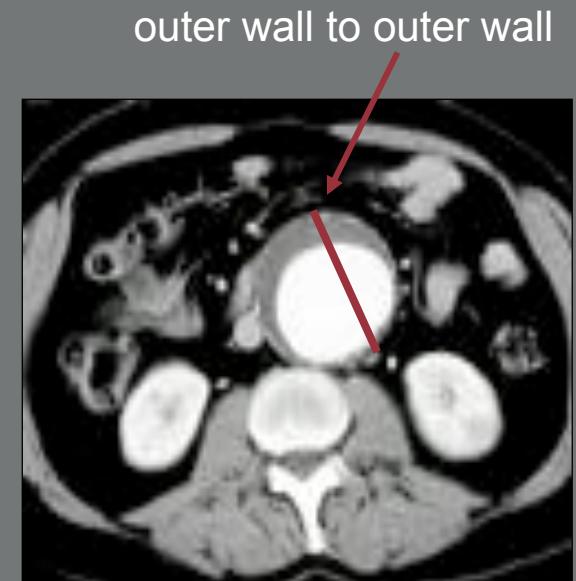
- Three diameters
 - D1, D2, D3
- Three lengths
 - L1, L2, L3



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Diameter Measurements

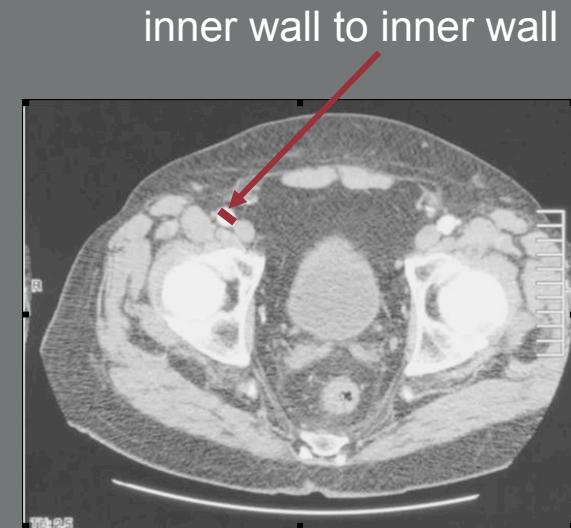
D1, D2, D3: Proximal neck and common iliac diameters from axial CT images should be measured from outer wall to outer wall, using shortest axis.



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Diameter Measurements

EI: External iliac diameters from axial CT images should be measured from inner wall to inner wall to assure delivery system access. Vessel should be compatible with delivery systems that are the profile of a 16-22 Fr introducer sheath.



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Diameter Oversizing

Diameters for components are oversized.

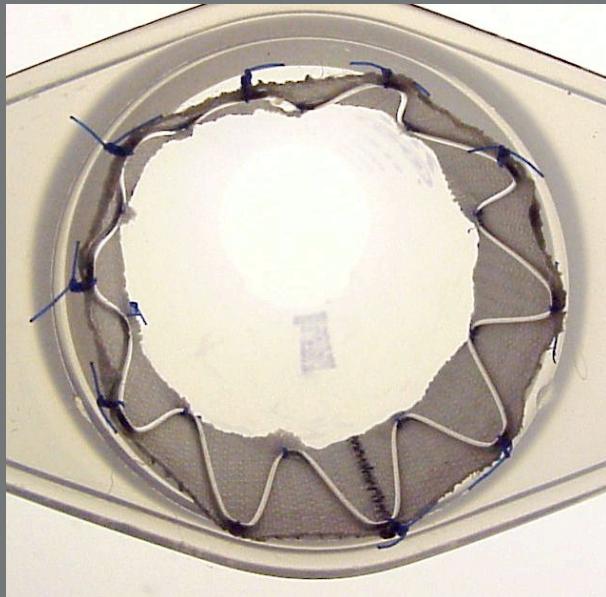
- Main body diameters are generally oversized 3-4 mm.
- Iliac leg diameters are generally oversized 1-2 mm.

Use the sizing tables on the planning and sizing worksheet to select components with proper oversizing.

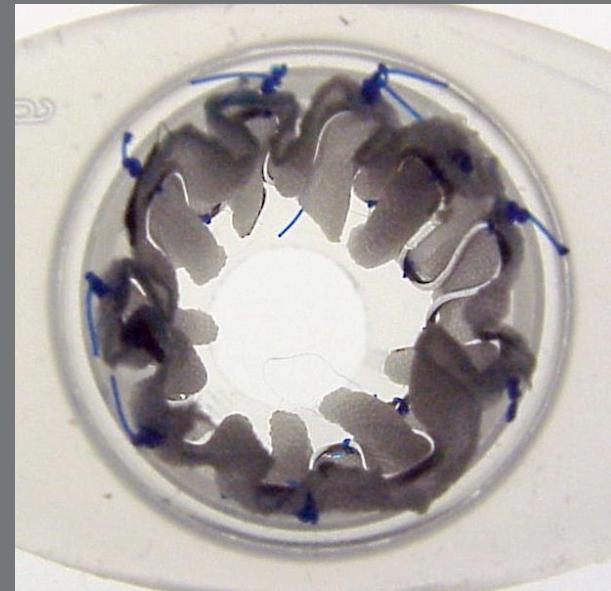
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Diameter Oversizing

Undersizing



Too much oversizing



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Overlap

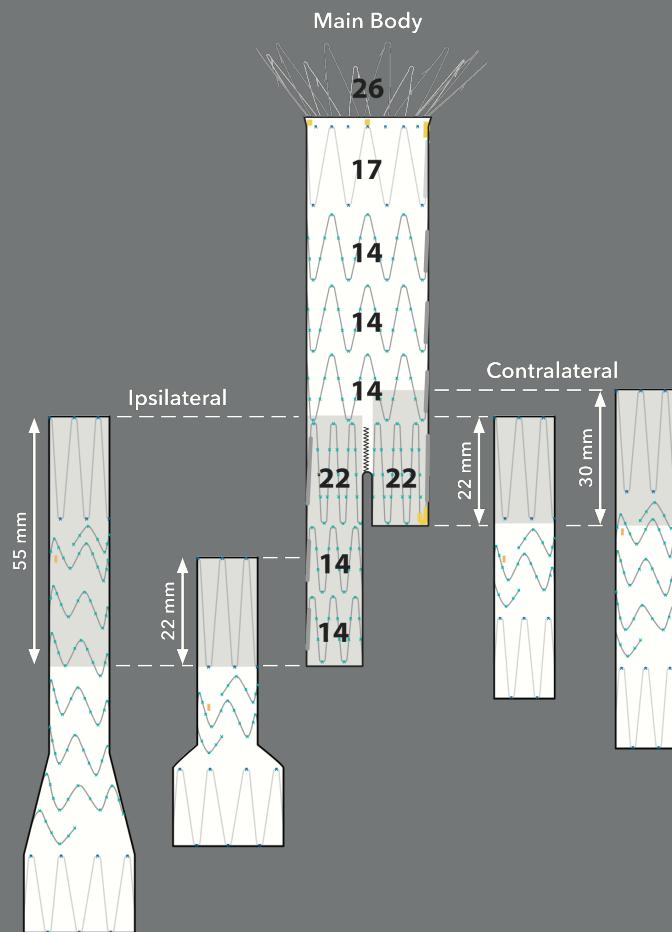
Contralateral

- 22 mm – 30 mm

Note: Maximum contralateral overlap denoted by radiopaque marker band.

Ipsilateral

- 22 mm – 30 mm (39 mm lengths)
- 22 mm – 55 mm (other lengths)



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Lengths

Use CT scan and/or angiography with calibrated catheter.

Do not oversize lengths!

- Use actual lengths.
- If necessary, select shorter graft length.

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Zenith® Planning and Sizing Worksheet

COOK® Zenith Flex®
AAA ENDOVASCULAR GRAFT

DEVICE PLANNING AND SIZING WORKSHEET

Anatomical Measurements

Main Body Introduction Site
 Right Iliac External iliac (EI) measurement _____ mm
 Left Iliac External iliac (EI) measurement _____ mm

Physician Name: _____
 Physician Phone #: _____
 Physician E-mail: _____
 Physician Signature: _____

Date: _____ Patient ID: _____
 Hospital: _____

Table Position
 Lowest renal artery 15 mm below lowest renal artery.
 check for 10% increase in diameter.
 Aortic bifurcation
 Origin of internal iliac
 Origin of external iliac

Diameters: D1 [] + D2 [] + D3 []
 Lengths: L1 [] + L2 [] + L3 []

When using CT for length, approximate lateral deviation/bentosity and add to difference in table position.
 If choice of graft diameter or graft length is affected by other considerations, adjust accordingly.

Main Body

Main Body Diameters		Graft Diameters 22-32		
D1	Graft Diameter mm	L1 mm	c1 Length ¹ mm	ii Length ² mm
18-19	22	88-103	82	112
20-21	24	124-158	98	124
21-22	26	119-133	111	141
23-24	28	134-148	125	155
25-26	30	149-163	140	170
27-28	32			
29-32	36			

¹Main body length on contralateral side
²Main body length on ipsilateral side

Contralateral Spiral-Z™ AAA Iliac Leg

L2 [] minus L3 [] = Contralateral Working Length

Contralateral Leg (ZSLE) Diameters		Contralateral Leg (ZSLE) Lengths		
D2 mm	Graft Diameter mm	Contralateral Working Length mm	Graft Length mm	Recommended Overlap mm
≤ 8	9	27-43	39 ¹	22-30
10-12	11	44-60	56	22-30
13-15	16	61-77	78	22-30
16-18	20	78-94	90	22-30
19-20	24	95-111	107 ¹	22-30
≥ 20	28	112-122	122 ¹	22-30

¹Graft lengths of 107 and 122 mm are available in 9-11 mm diameters only.

Contralateral Leg Order Number = ZSLE - [] - Graft Diameter [] - Graft Length []

Ipsilateral Spiral-Z AAA Iliac Leg

L3 [] minus L2 [] = Ipsilateral Working Length

Ipsilateral Leg (ZSLE) Diameters		Ipsilateral Leg (ZSLE) Lengths		
D3 mm	Graft Diameter mm	Ipsilateral Working Length mm	Graft Length mm	Recommended Overlap mm
≤ 8	9	20-35	39 ¹	22-30
10-12	11	40-56	54	22-30
13-15	16	54-74	74	22-30
16-18	20	43-59	74	22-30
19-20	24	60-76	90	22-30
≥ 20	28	77-93	107 ¹	22-30
≥ 20	36	94-122	122 ¹	22-30

¹Graft lengths of 107 and 122 mm are available in 9-11 mm diameters only.

Ipsilateral Leg Order Number = ZSLE - [] - Graft Diameter [] - Graft Length []

Main Body Order Number = TFB: [] - [] - Graft Diameter [] - d Length¹ [] - Graft Length² [] - ZT

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Step 1

- Select the side for main body introduction and fixation sites.
- Generally, place the main body through the side that has the best access vessel.
- Factors to consider (as per intended use in IFU):
 - Iliac tortuosity
 - Vessel diameter (EI)
 - Angulation of a distal neck
 - Aneurysmal sac orientation
 - Mural thrombus within the aneurysm
 - Iliofemoral disease (e.g., stenosis, calcification)
 - Iliac length (short iliac contralateral)
 - Iliac aneurysm (ipsilateral)

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Zenith Worksheet

Anatomical Measurements

Main Body Introduction Site

- Right iliac External iliac (EI) measurement _____ mm
 Left iliac External iliac (EI) measurement _____ mm

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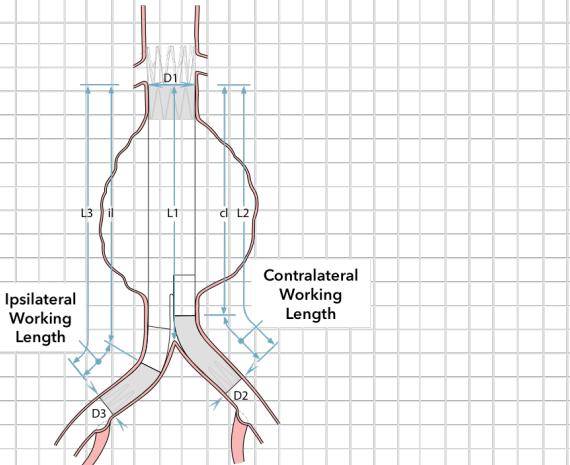
Step 2

Obtain anatomical measurements.

- D1: Largest aortic neck diameter throughout 15 mm neck length
- D2: Largest iliac diameter throughout contralateral distal fixation site
- D3: Largest iliac diameter throughout ipsilateral distal fixation site
- L1: Lowest renal artery to aortic bifurcation, including lateral deviation
- L2: Lowest renal artery to contralateral distal fixation site, including lateral deviation
- L3: Lowest renal artery to ipsilateral distal fixation site, including lateral deviation

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Zenith Worksheet

Table Position			
Lowest renal artery 15 mm below lowest renal artery, check for 10% increase in diameter.	Aortic bifurcation	Origin cl internal iliac	
	Origin il internal iliac		
			
Diameters:	D1 <input type="text"/> •	D2 <input type="text"/> :	D3 <input type="text"/> ::
Lengths:	L1 <input type="text"/> □	L2 <input type="text"/> □	L3 <input type="text"/> □ □
When using CT for length, approximate lateral deviation/tortuosity and add to difference in table position. If choice of graft diameter or graft length is affected by other considerations, adjust accordingly.			

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Step 3

Select main body.

- From D1, select graft diameter. (Table includes oversizing.)
- From L1, select graft lengths. (Table provides contralateral [cl] and ipsilateral [il] lengths, and includes minimum of 5 mm clearance for cl limb.)
- If choice of graft diameter or graft length is affected by other considerations, adjust accordingly. (See manual.)

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Zenith Worksheet

Main Body

Main Body Diameters

D1 mm	Graft Diameter mm
18-19	22
20-21	24
22	26
23-24	28
25-26	30
27-28	32
29-32	36

Graft Diameters 22-32

L1 mm	cl Length ¹ mm	il Length ² mm
88-103	82	112
104-118	96	126
119-133	111	141
134-148	125	155
149-163	140	170

Graft Diameter 36

L1 mm	cl Length ¹ mm	il Length ² mm
101-120	95	125
121-139	113	143
140-158	131	161
159-177	149	179

¹Main body length on contralateral side

²Main body length on ipsilateral side

Main Body Order Number = TFFB -  -  - ZT

Graft
Diameter cl Length/
Graft Length

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Step 4

Select contralateral iliac leg.

- From D2, select graft diameter. (Table includes oversizing.)
- $L_1 - cl$ length = contralateral working length.
- Using contralateral working length, select graft length.
- Consider stent overlap and a secure fixation site.
- If choice of graft diameter or graft length is affected by other considerations, adjust accordingly.

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Zenith Worksheet

Contralateral Spiral-Z™ AAA Iliac Leg

$$\boxed{\text{L2}} \quad \text{minus} \quad \boxed{\text{cl Length}} = \boxed{\text{Contralateral Working Length}}$$

Contralateral Leg (ZSLE) Diameters

D2 mm	Graft Diameter mm
≤ 8	9
9	11
10-12	13
13-15	16
16-18	20
19-20	24
••	▲▲

Contralateral Leg (ZSLE) Lengths

Contralateral Working Length mm	Graft Length mm	Recommended Overlap mm
27-43	39 ³	22-30
44-60	56	22-30
61-77	74	22-30
78-94	90	22-30
95-111	107 ⁴	22-30
112-122	122 ⁴	22-30
	*	

³Assure adequate distal fixation length.

⁴Graft lengths of 107 and 122 mm are available in 9-13 mm diameters only.

Contralateral Leg Order Number = ZSLE - - * - ZT
Graft Diameter Graft Length

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Step 5

Select ipsilateral iliac leg.

- From D3, select graft diameter. (Table includes oversizing.)
- $L3 - il$ length = ipsilateral working length.
- Using ipsilateral working length, select graft length.
- Consider stent overlap and a secure fixation site.
- If choice of graft diameter or graft length is affected by other considerations, adjust accordingly.

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Zenith Worksheet

Ipsilateral Spiral-Z AAA Iliac Leg

$$\boxed{\text{L3}} \text{ minus } \boxed{\text{il Length}} = \text{Ipsilateral Working Length}$$

Ipsilateral Leg
(ZSLE) Diameters

D3 mm	Graft Diameter mm
≤ 8	9
9	11
10-12	13
13-15	16
16-18	20
19-20	24
...	***

Ipsilateral Leg (ZSLE) Lengths

Ipsilateral Working Length mm	Graft Length mm	Recommended Overlap mm
20-35 graft diameter 20-24	39	22-30
20-35 graft diameter 9-16	56	22-55
36-42	56	22-30
43-59	74	22-55
60-76	90	22-55
77-93	107 ⁴	22-55
94-122	122 ⁴	22-55

**

⁴Graft lengths of 107 and 122 mm are available in 9-13 mm diameters only.

Ipsilateral Leg Order Number = ZSLE -  -  - ZT

Graft
Diameter Graft
Length

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Devices to Order

Main Body Order Number = TFFB - 

Graft
Diameter cl Length/
Graft Length

Contralateral Leg Order Number = ZSLE - 

Graft
Diameter Graft
Length

Ipsilateral Leg Order Number = ZSLE - 

Graft
Diameter Graft
Length

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Zenith Flex®

AAA ENDOVASCULAR GRAFT

Transcend: Precision

Going beyond. That's what it means to Transcend.
That's the essence of Zenith.