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.
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.
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

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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 (El) measurement ______mm
- Left iliac   External iliac (El) 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

Ipsilateral Working Length

Contralateral Working Length

Diameters:  D1  D2  D3

Lengths:  L1  L2  L3

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.)
Zenith Worksheet

### Main Body

<table>
<thead>
<tr>
<th>Main Body Diameters</th>
<th>Graft Diameter mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 mm</td>
<td>Graft Diameter mm</td>
</tr>
<tr>
<td>18.19</td>
<td>22</td>
</tr>
<tr>
<td>20.21</td>
<td>24</td>
</tr>
<tr>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>23.24</td>
<td>28</td>
</tr>
<tr>
<td>25.26</td>
<td>30</td>
</tr>
<tr>
<td>27.28</td>
<td>32</td>
</tr>
<tr>
<td>29.32</td>
<td>36</td>
</tr>
</tbody>
</table>

### Graft Diameters 22-32

<table>
<thead>
<tr>
<th>L1 mm</th>
<th>cl Length&lt;sup&gt;1&lt;/sup&gt; mm</th>
<th>il Length&lt;sup&gt;2&lt;/sup&gt; mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>88-103</td>
<td>82</td>
<td>112</td>
</tr>
<tr>
<td>104-118</td>
<td>96</td>
<td>126</td>
</tr>
<tr>
<td>119-133</td>
<td>111</td>
<td>141</td>
</tr>
<tr>
<td>134-148</td>
<td>125</td>
<td>155</td>
</tr>
<tr>
<td>149-163</td>
<td>140</td>
<td>170</td>
</tr>
</tbody>
</table>

### Graft Diameter 36

<table>
<thead>
<tr>
<th>L1 mm</th>
<th>cl Length&lt;sup&gt;1&lt;/sup&gt; mm</th>
<th>il Length&lt;sup&gt;2&lt;/sup&gt; mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-120</td>
<td>95</td>
<td>125</td>
</tr>
<tr>
<td>121-139</td>
<td>113</td>
<td>143</td>
</tr>
<tr>
<td>140-158</td>
<td>131</td>
<td>161</td>
</tr>
<tr>
<td>159-177</td>
<td>149</td>
<td>179</td>
</tr>
</tbody>
</table>

<sup>1</sup>Main body length on contralateral side
<sup>2</sup>Main body length on ipsilateral side

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Step 4

Select contralateral iliac leg.

- From D2, select graft diameter. (Table includes oversizing.)
- \( L1 - cl \) 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.
Zenith Worksheet

**Contralateral Spiral-Z™ AAA Iliac Leg**

\[ L2 \text{ minus } cl \text{ Length} = \text{Contralateral Working Length} \]

<table>
<thead>
<tr>
<th>D2 mm</th>
<th>Graft Diameter mm</th>
<th>Contralateral Working Length mm</th>
<th>Graft Length mm</th>
<th>Recommended Overlap mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 8</td>
<td>9</td>
<td>27.43</td>
<td>39(^a)</td>
<td>22-30</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>44.60</td>
<td>56</td>
<td>22-30</td>
</tr>
<tr>
<td>10-12</td>
<td>13</td>
<td>61.77</td>
<td>74</td>
<td>22-30</td>
</tr>
<tr>
<td>13-15</td>
<td>16</td>
<td>78.94</td>
<td>90</td>
<td>22-30</td>
</tr>
<tr>
<td>16-18</td>
<td>20</td>
<td>95-111</td>
<td>107(^b)</td>
<td>22-30</td>
</tr>
<tr>
<td>19-20</td>
<td>24</td>
<td>112-122</td>
<td>122(^c)</td>
<td>22-30</td>
</tr>
</tbody>
</table>

\(^a\)Assure adequate distal fixation length.

\(^b\)Graft lengths of 107 and 122 mm are available in 9-13 mm diameters only.

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

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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.
Zenith Worksheet

**Ipsilateral Spiral-Z AAA Iliac Leg**

\[
\text{L3 minus } \text{ il Length} = \text{ Ipsilateral Working Length}
\]

**Ipsilateral Leg (ZSLE) Diameters**

<table>
<thead>
<tr>
<th>D3 mm</th>
<th>Graft Diameter mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 8</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>10-12</td>
<td>13</td>
</tr>
<tr>
<td>13-15</td>
<td>16</td>
</tr>
<tr>
<td>16-18</td>
<td>20</td>
</tr>
<tr>
<td>19-20</td>
<td>24</td>
</tr>
</tbody>
</table>

**Ipsilateral Leg (ZSLE) Lengths**

<table>
<thead>
<tr>
<th>Ipsilateral Working Length mm</th>
<th>Graft Length mm</th>
<th>Recommended Overlap mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-35 graft diameter 20-24</td>
<td>39</td>
<td>22-30</td>
</tr>
<tr>
<td>20-35 graft diameter 9-16</td>
<td>56</td>
<td>22-55</td>
</tr>
<tr>
<td>36-42</td>
<td>56</td>
<td>22-30</td>
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<tr>
<td>43-59</td>
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<tr>
<td>60-76</td>
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<tr>
<td>77-93</td>
<td>107</td>
<td>22-55</td>
</tr>
<tr>
<td>94-122</td>
<td>122</td>
<td>22-55</td>
</tr>
</tbody>
</table>

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

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

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Devices to Order

Main Body Order Number = TFFB - Graft Diameter - CL Length/ Graft Length - ZT

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

Ipsilateral Leg Order Number = ZSLE - Graft Diameter - Graft Length - ZT

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