To form a figure-of-eight or reverse curve to position a simple curve end-hole catheter in the aortic valve.

The catheter tip is considered to be less traumatic than square cut tubing or bevel ended tubing which is easier to insert.

Catheter Selection

Select a catheter that points in the general direction you wish to travel. For example, if you want to cross the aortic bifurcation, you need at least the curvature of a cobra catheter.

A) Tip Length - Increased length offers more stability in target vessel at the cost of maneuverability in the parent vessel.
B) Primary Curve - Choose the optimal curve by assessing the angle of the target vessel from its parent artery.
C) Secondary Curve - Choose the optimal curve by assessing the width of the parent vessel.
D) Tertiary Curve - Choose the optimal curve by assessing normal curvature of the parent vessel.
E) Cutting Length - Choose length catheters (60 cm) are used for the contralateral iliac artery injections.
F) Mid-length catheters (85 cm) are used for the visceral vessel cannulation (renal, celiac, superior mesenteric).
G) Longer length catheters (100-125 cm) are used for the abdominal arch and its branches.

Catheter Handling

The catheter can be handled in various ways:

1. Simple Curve: To get up and over the aortic bifurcation.
2. Double Curve: To form a complex curve catheter in the left subclavian artery.
3. Simple Curve: To form a simple curve catheter in the left subclavian artery.
4. Double Curve: To get up and over the aortic bifurcation.
5. Simple Curve: To form a simple curve catheter in the left subclavian artery.
6. Double Curve: To get up and over the aortic bifurcation.
7. Simple Curve: To form a simple curve catheter in the left subclavian artery.
8. Double Curve: To get up and over the aortic bifurcation.
9. Simple Curve: To form a simple curve catheter in the left subclavian artery.
10. Double Curve: To get up and over the aortic bifurcation.

Surface Coat

Surface coatings can modify thrombogenicity, friction coefficient or antithrombin properties.

Tip: A rounded tip is considered to be less traumatic than square cut tubing or bevel ended tubing which is easier to insert.

Catheter Construction

Catheter construction details:

- OUTER LAYER: Promotes a smooth, slippery surface which may help with catheter advancement and handling.
- INNER LAYER: Maintains flexibility and allows for easier manipulation within the vasculature.
- REINFORCEMENT: Provides added rigidity and strength to the catheter, allowing for greater support during advancement and manipulation.
- TORSIONAL STIFFNESS: Antagonizes the catheter's tendency to bend or twist, improving control and stability during various handling maneuvers.
- PUSHABILITY: The catheter's ability to be advanced smoothly forward.
- TRACKABILITY: The ability of the catheter to advance the guidewire through tortuous vessels and around corners without pulling the wire out of its intended location.

Vascular Catheters

Vascular catheters are categorized as diagnostic or guide lines. Diagnostic catheters are further categorized into selective and flush. Both diagnostic and guide catheters have a variety of head shapes to choose from. The name of the shape is consistent among both types of catheters, although there are generally less guide catheter shapes to choose from.

Diagnostic catheters have a lumen range from 4F to 6F and lengths from 50 to 120 cm, respectively. Many catheters are braided, with a soft tip. Guide catheters are generally 9F, 10F or 12F and range from 60 to 100 cm in length. Guide catheters have reinforced construction and a much stiffer shaft to provide back-up support for the advancement of guidewires, balloons and stents.

Guide Catheters

Guide catheters are generally 9F, 10F or 12F and range from 60 to 100 cm in length. Guide catheters are reinforced, catheterized and have a much stiffer shaft to provide back-up support for the advancement of guidewires, balloons and stents.

Vascular Catheter Nomenclature

Vascular catheter nomenclature is presented in a table format with columns for different categories and rows for different types of catheters. The table includes designations for flushing, straight, simple curves, complex curves, reverse curves, and double curves. Each category and type is described with specific characteristics and functionalities.

Catheter Selection

A) Tip Length - Increased length offers more stability in target vessel at the cost of maneuverability in the parent vessel.
B) Primary Curve - Choose the optimal curve by assessing the angle of the target vessel from its parent artery.
C) Secondary Curve - Choose the optimal curve by assessing the width of the parent vessel.
D) Tertiary Curve - Choose the optimal curve by assessing normal curvature of the parent vessel.
E) Cutting Length - Choose length catheters (60 cm) are used for the contralateral iliac artery injections.
F) Mid-length catheters (85 cm) are used for the visceral vessel cannulation (renal, celiac, superior mesenteric).
G) Longer length catheters (100-125 cm) are used for the abdominal arch and its branches.

Catheter Handling

The catheter can be handled in various ways:

1. Simple Curve: To get up and over the aortic bifurcation.
2. Double Curve: To form a complex curve catheter in the left subclavian artery.
3. Simple Curve: To position a simple curve end-hole catheter in the innominate artery.
4. Double Curve: To form a loop in a complex curve catheter of the aortic valve.