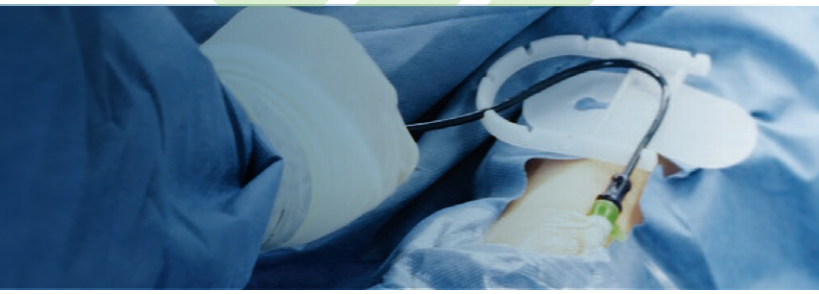
STANDTALL

RADUX DEVICES

RADIAL ACCESS GUIDELINES



StandTall™ Patient Height and Catheter Length Recommendation

	PATIENT HEIGHT			
	4'0"– 5'5"	5'6"– 5'11"	6'0" – 6'6"	> 6'7"
StandTall™ 10 cm (3.9 inches)	100, 110, 118 and 125 cm catheters	100, 110, 118 and 125 cm catheters	118 and 125 cm catheters	125 cm catheter
StandTall™ 15 cm (5.9 inches)	100, 110, 118 and 125 cm catheters	110, 118 and 125 cm catheters	118 and 125 cm catheters	StandTall™ Not recommended
StandTall™ 25 cm (9.8 inches)	118 and 125 cm catheters	118 and 125 cm catheters	125 cm catheter	
Available catheters	100 cm Standard	110 cm Specialty (D)	118 cm catheter (G)	125 cm catheter

Catheter Type: (D) Diagnostic: Smaller ID catheters: 100, 110, 125 cm / (G) Guiding or Therapeutic Larger ID catheters: 100, 118 and 125 cm.

This information is provided as a guideline for Radial Access. Individual patient anatomy and procedure should be reviewed prior to StandTall™ use.
Standard catheter length is 100 cm. Universal right catheter length is 100 cm or 110 cm.
Diagnostic and guiding catheters are 125 cm and available from Boston Scientific, Cordis and Merit. Medtronic Launcher guide catheter is 118 cm.
Stent and balloon length with 125 cm catheters may limit use of StandTall for distal third coronary lesions. *Pre-procedure planning recommended*

CM TO INCH CHART

100 cm = 39.37 in
110 cm = 43.30 in
118 cm = 46.46 in
125 cm = 49.21 in
300 cm = 118.00 in

Catheter Lengths Available for Radial Procedures

100 cm diagnostic and guiding catheters	Terumo	Medtronic	Cordis
110 cm Specialty Universal catheters	Terumo	Medtronic	Cordis
118 cm (Launcher) Guiding catheters	Medtronic		
125 cm diagnostic and guiding catheters: standard availability	Medtronic	Cordis	Boston Scientific

StandTall™ Vascular Sheath Compatibility

Manufacturer	FR Size	Model
Cook Medical	7–8	Flexor Check Flo
Terumo	4–8	Pinnacle
Terumo	4–8	Pinnacle R/O II
Terumo	4–8	Pinnacle R/O II Hiflo
Terumo	4–8	Slender
Medtronic	4–8	Input PS
Boston Scientific	4–8	Super Sheath
Cordis	4–8	Avanti

What can I expect in regard to “Feel” and “Torque” with the addition of the StandTall™ Product?

Mild increased friction is always noted with any additional contact with any vascular conduit.
The rate limiting steps in resistance will be in the following order from most to least:

1. Extent of vascular tortuosity and atherosclerotic disease of arteries produces the greatest amount of friction and competitive forces.
2. On-line radial artery access sheath placement is crucial to ensure a straight pathway to avoid kinking of sheath at skin interface.
3. The vascular access sheath will have the smallest internal conduit and therefore, at times, the highest degree of friction; much higher competitive friction forces with 5-6 FR sheath versus the hydrophilic 8.3 FR ID of StandTall™.
4. The stiffness and shape of the catheter balances torque control with ability to move through tortuous vessels. The stiffer the catheter the greater the control, but at the expense of loss of tracking ability through vessels.
5. Keep bend at elbow minimal during passage of catheter and wire to minimize spasm and resistance.
6. Although an additional contact interface is added, improved physician posture and less physician stress should overcome potential minor increases in resistance. Without the added control of StandTall™, the catheters and wire will move freely in space. StandTall™ assists in keeping the tools in the desired path and should improve overall control.
7. LRA approach also has only two areas of major contact along the vascular pathway, one fewer than the RRA approach, which should offset by reducing torque.

What should I do if StandTall™ pops out of the vascular sheath during the procedure?

StandTall™ universal adapter should not pop out of the access sheath, unless it is not properly secured. Two to three clockwise rotations should secure StandTall™ to sheath. Frequent removal and reinsertion into sheath hemostasis valve may damage hemostasis valve and or decrease stability of seal. Multiple reattachments may increase introducer sheath leak.

Do I need to use the Clasp Securement?

The clasp is not completely necessary but is advantageous.

1. The Clasp Securement is designed to limit sheath movement in vessel, a major source of spasm and occlusion.
2. The added stability of the Clasp Securement will improve catheter control.
3. Absorbs deployment and extraction forces which would otherwise be applied to the vascular sheath.
4. Tegaderm or other comparable adhesive may be used for additional securement.

Why should I preload the wire into the catheter before inserting into the StandTall™?

The communication between the StandTall™ and the sheath will have an abrupt change in inner diameter. The inner diameter of the StandTall™ is 8.3 FR compared with the ID of the sheath of 5 or 6 FR. There is therefore a 0.67 to 1.0 mm lip. Preloading wire in catheter prevents the distal J-loop in the wire from catching at the StandTall™ / sheath interface.

1. Preload wire until edge of wire is at the catheter exit interface.
2. Advance catheter and wire as one unit through Hemostasis valve hub of ST and introduce the catheter until you pass the a second minor catch/friction point.
3. You have now crossed the lip of the sheath and may advance the wire independent of catheter.

What should I do if I hub out?

Procedure: Exchange catheter out over wire and remove StandTall™.

1. Advance wire through catheter.
2. Remove catheter.
3. Unscrew StandTall™ counterclockwise.
4. Remove StandTall™.
5. Re-aspirate and flush access sheath.

Citations/Guidelines and Evidence

American Heart Association Citation Scientific Statement: An Update on Radial Artery Access and Best Practices for Transradial Coronary Angiography and Intervention in Acute Coronary Syndrome

https://www.ahajournals.org/doi/pdf/10.1161/HCV.0000000000000035

Cost Benefits of Radial Procedures

American Heart Association	Estimated Savings per patient/procedure
Lower Complication Rates $275-$533 per patient	($275)
Reduced Length of Stay ~1.5 days per patient ($20,476 vs. $23,389)	($2,913)
Bleeding Complication Rates	($1,621)
Overall TRA vs. FMA Savings per patient	($916)
Estimated Savings per patient:	($900 - $3,000)

Benefits of TLRA (Trans Left Radial Access)

Operator preference
Lower Incident of radial loops
LRA anatomic route is same as TFA
Physician hand dominance
Patient hand preference to use non-dominant hand

Patient Recommendations for TRA

Female
More than 75 years of age
Short stature
Previous Coronary Bypass Grafting (CABG)
Patient with higher bleeding risk/complications
Cardiogenic shock

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