

## Transradial Access for Cardiac Catheterization

### A Process Improvement Initiative for Patient Safety and Satisfaction

As a general rule, people undergoing heart catheterization in the United States do so with the procedure starting at the femoral artery. However, patients undergoing cardiac catheterization performed by the Cardiologists from Kentucky Cardiology may be surprised to find that the pathway to the heart starts at the wrist (transradial access) and not at the groin (transfemoral access.)

Interventional Cardiologists, Dr. Avi Eres and Dr. Mubashir Qazi have embraced the transradial approach as a way to reduce the risk of complications, improve patient outcomes, and to significantly improve the overall patient experience.

Kentucky Cardiology has successfully performed over 600 Cardiac Catheterization procedures using the Transradial approach. Dr. Qazi and Dr. Eres have been in practice together at Kentucky Cardiology next to Saint Joseph East since 2004 and have over 30 years of combined medical experience.

#### History of TR

There are 3 access strategies to perform cardiac catheterization femoral, brachial, and transradial. Transradial access has been performed since the late 1980s. Utilization of the technique varies by regions of the world. In China upwards of 85% of cardiac catheterizations are performed using the transradial access technique. Utilization is 50% in Canada, 40% in Japan, and 40% across much of Europe. Current utilization in the United States is still less than 10%. Adoption is lower due to less experience with the technique and slower acceptance of its benefits. Femoral access is the most popular method of access in the U.S. because most physicians were trained on this technique and may lack experience with other access methods.

### Why TR now?

There are challenges and limitations associated with femoral access and it can impact outcomes, patient satisfaction, and healthcare costs. See comparison below:

<b><u>FEMORAL approach</u></b>	<b><u>TRANSRADIAL approach</u></b>
The ability for an operator to gain arterial access through the femoral artery, especially in obese patients or patients with peripheral vascular disease.	Greater first attempt access success for obese patients and patients with peripheral vascular disease.
An increased risk of bleeding complications with femoral access, especially at the puncture site. There is also a documented higher risk of bleeding complications among women than among men.	Virtually no incidence of bleeding complications.
Bleeding complications from femoral access can lead to an increased risk for potential need for transfusions.	Significantly improves patient comfort and satisfaction.
The general need for patients to lie flat for two to six hours post procedure.	Quicker mobility for the patient after the procedure. A patient is able to be mobile almost immediately post procedure.
Greater post procedure pain both at the access site and as a result of the requirement to lie flat.	Patients who have undergone cardiac catheterization by both the femoral access and transradial technique greatly prefer the transradial access option.
Longer post procedure stays in the hospital.	Quicker discharge from the hospital, enabling more procedures to be performed on an outpatient basis.

In the last year there has been a growing interest among medical professionals in the United States to learn the transradial technique as a way to reduce bleeding complications, procedure costs, shorten hospital stays and improve patient satisfaction. Kentucky Cardiology continuously strives to use cutting edge techniques and technology to provide the utmost in advanced care to their patients.