



## Facilitated Arm Immobilization for Cardiac Catheterization

### *Application*

- ◆ *Diagnostic procedure*

### *Advantages*

- ◆ *The device will improve patient comfort and immobilization*
- ◆ *Provides stability and ease to improve safety of procedures*

### *Introduction*

Cardiac catheterization is a procedure undertaken for the diagnosis of a variety of cardiac diseases. As with any invasive procedure that is associated with important complications, the decision to recommend cardiac catheterization must be based on a careful evaluation of the risks and benefits to the patient.

General indications for cardiac catheterization include:

- Identification of the extent and severity of coronary artery disease and evaluation of left ventricular function.
- Assessment of the severity of valvular or myocardial disorders such as aortic stenosis and/or insufficiency, mitral stenosis and/or insufficiency, and various cardiomyopathies to determine the need for surgical correction.
- Collection of data to confirm and complement noninvasive studies.
- Determination of the presence of coronary artery disease in patients with confusing clinical presentations or chest pain of uncertain origin.

Radial access is a particular type of catheterization whereby patients' cardiovascular systems are accessed through the arm versus the leg or torso. This access carries advantages and disadvantages, but typically is a function of the training of the surgeon and the unique conditions of the patient. The procedure carries certain risks and discomfort which we now seek to mitigate with our invention.

The present invention improves immobilization and comfort for patients having radial access for cardiac catheterization. The invention maintains stability of arm and ease of closure to improve safety of procedures and maintain proper alignment for catheter exchanges and procedural success.



### CONTACT



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### *About the Inventor*

Kimberly A. Skelding, M.D. FACC, FAHA, FSCAI, is the Director of Cardiovascular Genomics and Cardiovascular Research for Geisinger Center for Health Research and an Associate, Interventional Cardiology for Geisinger Health System. Dr. Skelding also serves as a Special Volunteer in the Laboratory of Dr. Elizabeth Nabel at the National Human Genome Research Institute. She completed her undergraduate studies at Franklin and Marshall, her doctorate at Northwestern, and the master's program in Clinical Research at Mayo Graduate School, where she also served as a professor. Dr. Skelding specializes in interventional coronary intervention, alcohol septal ablation, balloon valvuloplasty, radial artery catheterization and intervention, left atrial appendage occlusion device, patent foramen ovale closures, myocardial biopsy, transeptal catheterization, hemodynamic evaluation, and coronary artery fistula closure. She has administered over 30 clinical trials throughout her career. Dr. Skelding has also authored numerous articles and abstracts.



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