

MEDICAL BREAKTHROUGHS **RESEARCH SUMMARY**

TOPIC: FROM YOUR HAND TO YOUR HEART: NEW CATHETER TECHNIQUES
SAVING LIVES
REPORT: **MB #5115**

BACKGROUND: Cardiac catheterization is a procedure in which a thin, flexible tube (catheter) is guided through a blood vessel to the heart to diagnose or treat certain heart conditions, such as clogged arteries or irregular heartbeats. Cardiac catheterization gives doctors important information about the heart muscle, heart valves and blood vessels in the heart. During cardiac catheterization, doctors can do different heart tests, deliver treatments, or remove a piece of heart tissue for examination. Cardiac catheterization is one of the most widely performed cardiac procedures. In the United States, more than 1,000,000 cardiac catheterization procedures are performed annually.

(Source: <https://www.mayoclinic.org/tests-procedures/cardiac-catheterization/about/pac-20384695#:~:text=Overview,clogged%20arteries%20or%20irregular%20heartbeats.https://www.ncbi.nlm.nih.gov/books/NBK531461/#:~:text=Cardiac%20catheterization%20is%20one%20of,catheterization%20procedures%20are%20performed%20annually.>)

DIAGNOSING: Your doctor may use cardiac catheterization to help diagnosis these heart conditions: atherosclerosis (a gradual clogging of the arteries by fatty materials), cardiomyopathy (enlargement of the heart due to thickening or weakening of the heart muscle), congenital heart disease, heart failure, or heart valve disease. You may have a cardiac cath if you have recently had one or more of these symptoms: chest pain, shortness of breath, dizziness, and/or extreme tiredness.

(Source: <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/cardiac-catheterization>)

NEW TECHNOLOGY: The technology platform, Azurion, by Phillips, provides high-quality imaging, achieving excellent visibility at low X-ray dose levels for patients. This fully digital system uses intravascular venous ultrasound and enables physicians to capture and view detailed images of a patient's coronary structure to facilitate faster diagnosis and treatment of cardiac disease. Azurion's ergonomic design and intuitive user interface optimizes workflow and enables clinicians to perform both routine and complex procedures. This flexible system can also aid in the diagnosis and treatment of a range of patient conditions and can be used for procedures such as diagnostic catheterizations, stenting and balloon angioplasty. The benefits of catheter-based interventions include shorter hospital stays, reduced recovery time without the pain of a large incision and less visible surgical scarring. These procedures can be performed on both the heart and peripheral blood vessels.

(Source: <https://www.fiercebiotech.com/medtech/philips-relaunches-its-azurion-image-guided-therapy-platform-automated-3d-scanning>)

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com