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64-Slice CT Scanner: A Real Heart Saver

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Knowing what is happening inside your body can be lifesaving. The question is how you find out. Thanks to rapid technological advancements in the medical field, doctors can learn dramatically more about the body. The newest computed tomography, or "CT" scans as they are better known, now can provide doctors with clear, sharp pictures of your organs, tissues and blood vessels down to the smallest detail in as little as 10 seconds.

With a 64-slice CT scanner, technologists can take high-quality images so rapidly that it freeze-frames the heart while it's beating, and the blood as it circulates through the body. This is possible because in one revolution the CT scanner is able to take 64 separate credit-card-thin images of a patient's body. Afterwards, a computer reconstructs the scans into three-dimensional images that can be viewed from every angle.

Just as you would not expect to get an x-ray of your leg unless it was injured or hurting, you shouldn't expect your doctor to routinely order a multi-slice CT scan. So, who should get a scan? Doctors generally recommend that individuals with the following risk factors be considered:

- A family history of heart disease, such as a parent having a heart attack before the age of 50
- A prior heart scan showing elevated calcium deposits along the walls of arteries
- Multiple cardiovascular risks like high blood pressure, high cholesterol and obesity
- Diabetes

The addition of 64-slice CT scanner technology has made a positive impact on the diagnosis and management of cardiovascular disease. Many patients can now have a much less invasive test to assess any potential coronary blockages. Traditionally, a cardiac cath would be done in the catheterization lab, which carries a much higher complication rate, such as hematomas, stroke and irregular heart beats. Now, only those that need therapeutic intervention will need to have the more invasive procedure.

Calcium Scoring

Since calcium is an indicator of how much plaque is in the heart's arteries, the 64-slice CT scan can be an important tool in helping people at risk for early heart disease. The more plaque a patient has, the greater likelihood of arterial narrowing,



64-Slice CT Scanner



Detailed 3-D CT Image



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thus increasing a patient's risk of developing a heart attack. During cardiac calcium scoring, the CT scanner is coupled with a tracing of the patient's heart beat. With just a few split-second revolutions, the CT scanner can create motionless images of the heart. The physician can then analyze these images for the presence of calcified atherosclerosis.

The information provided from 64-slice CT scanners can be a real heart saver. From detecting atherosclerosis (the disease process caused from plaque building up in arteries) to monitoring coronary stent placements, the scans are providing physicians with a new tool for diagnosing what is going on inside your body. To learn more about the 64-slice CT scanner, talk to your physician.

Dr. Douglas M. Johnson, DO, Gaston Radiology completed his fellowship training in cardiothoracic imaging at Wake Forest University. He is on staff at Gaston Memorial Hospital as a diagnostic radiologist.



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