



# Society of Cardiovascular Computed Tomography

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Ronni Sandroff  
Editor, Consumer Reports on Health  
Consumer Reports  
101 Truman Avenue  
Yonkers, NY 10703

Dear Mrs. Sandroff,

In the March 2007 (Volume 19, #3) issue, *Consumer Reports on Health* published an article entitled "Angioplasty: Resist the Rush." Unfortunately, information concerning coronary CT angiography contained in this article is incorrect, oversimplified to the extent of being wrong, and it may be misleading.

For example, coronary CT angiography is blamed for having contributed to the increase in angioplasty procedures that are performed. ("*Overconfidence in CT angiography and drug-coated stents has encouraged the overuse of angioplasty...*" and "*The net result: The number of angioplasties has tripled in the past decade or so (see front-page box). But that overuse may now be slowing as researchers question the value of CT angiography and coated stents*"). Since coronary CT angiography only became available in the very recent years (with first scientific publications in the year 2001 and 16-slice as well as 64-slice scanners becoming available after 2002), it is impossible that CT angiography has caused the increasing number of angioplasties between 1994 and 2004. In addition, angioplasty is never performed based on the results of CT angiography alone. A catheter-based coronary angiogram ("*... still the gold standard for determining the extent of coronary disease*") is always performed before an angioplasty, and the indication for angioplasty is not based on the CT angiogram.

As a second example, the article states that "*CT angiography uses an ultra fast scanner to measure the amount of calcium, a major component of plaque, in the artery walls.*" This again is incorrect. The amount of calcium in arteries is measured by CT calcium scoring, a different test. CT angiography is not used for measuring coronary calcium but for assessing the inner lumen of the coronary arteries.

Similarly, while not immediately related to CT angiography, it is misleading to convey the information that only small, coronary atherosclerotic plaques are potentially dangerous because most infarctions are caused by the sudden rupture of these small plaques. It is important to note that large plaques with lumen stenosis (significant narrowing) are not harmless at all; they are even more hazardous than plaques confined to the artery wall. The clinical situation that most infarctions are caused by small plaques is due only to the fact that a much higher number of these small plaques are present in the coronary arteries than there are larger plaques with high grade stenoses. While it is correct that lifestyle modification and medications are necessary to prevent rupture of these small deposits, as Dr. Nissen is correctly quoted, this does not mean that large plaques with substantial narrowing are harmless. The risk of a single, large plaque with associated stenosis to cause infarction is substantially higher than that of a single, small plaque without lumen stenosis<sup>1</sup>.

Incorrect statements as outlined above (but not limited to the examples given here) create a wrong impression of the true clinical value of coronary CT angiography.

Several published statements by professional societies, created by large groups of experts in cardiology and cardiac imaging, and approved by authoritative bodies such as the American Heart

Association, the American College of Cardiology Foundation, and the American College of Radiology, are available which outline clinically useful indications of coronary CT angiography<sup>2,3</sup>. The use of CT angiography in patients without symptoms is *not* recommended in these statements. However, recommendations are made for appropriate use of the test in patients who are symptomatic, but have unclear findings in stress tests, or in whom a stress test cannot be performed, as well as other clearly specified groups, and the aim is exactly to *avoid* unnecessary invasive coronary angiography which is significantly more costly and could potentially cause unnecessary harm to the patient. It is important that the public become educated about when coronary CT angiography is clinically useful - and in which situations it is not. However, your incorrect reporting of the methods, results, and applications of coronary CT angiography may keep patients from receiving this test when it is appropriate and when it would help avoid other, more expensive tests that also carry a somewhat higher risk (such as an invasive coronary angiogram).

The Society of Cardiovascular Computed Tomography (SCCT), a professional society of more than 3,400 members, strongly encourages a conscientious use of CT angiography, limited to situations where it is appropriate. Education is one of the major missions of SCCT and we welcome opportunities to inform the public about cardiac computed tomography in a balanced, well-founded manner. However, the article in question bases its conclusion "*In general, stay clear of CT angiography*" on incorrect assumptions and falsehoods, rather than facts. As a result, it will confuse the public about the true benefits of coronary CT angiography if it is applied in accordance with the published statements and recommendations issued by the professional societies.

SCCT strongly recommends that Consumer Reports publicly correct the misleading statements contained in this article. SCCT would be happy to provide you with more information on coronary CT angiography and to help in creating a new report that may be of help to your readership as they seek the best in health care. We look forward to hearing from you in this matter.

Sincerely,



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