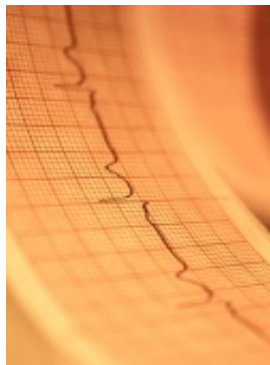


Women don't fare as well as men with implanted defibrillators, study says

7 November 2012, by Kathleen Doheny, Healthday Reporter



They were more likely to have complications, die after the heart rhythm devices were implanted.

(HealthDay)—Women are more likely than men to experience complications and to die within six months of getting an implantable cardioverter defibrillator, according to new research that looked at nearly 39,000 patients.

"Women, when they come for treatment, are much sicker in general," said study author Dr. Andrea Russo, a [cardiologist](#) at Cooper Medical School of Rowan University in Camden, N.J. "That may be one of the reasons why their results are different."

Russo is scheduled to present the findings Wednesday at the [American Heart Association's](#) annual meeting, in Los Angeles.

For the study, Russo's team looked at the results of ICD implants given to 38,912 patients, 25 percent of them women, between 2006 and 2009. The researchers retrieved the information from the ICD registry, which is part of the National Cardiovascular Data Registry. This registry includes about 90 percent of all ICDs implanted in the United States.

About 10,000 ICDs a month are implanted, according to registry records, Russo said.

When the heart rhythm becomes abnormal, the device can help restore normal rhythm. It is implanted under the skin, typically in the chest, and has wires with [electrodes](#) on the end that connect to the chambers of the heart.

If an [irregular rhythm](#) is detected, the device sends out [low energy electrical pulses](#). "It shocks the heart back to normal," Russo explained, and can help prevent [sudden cardiac death](#). [Sudden cardiac arrest](#) occurs about 295,000 times a year in the United States, according to the heart association.

Russo's team looked at results 30 days, 90 days and six months after the ICD was implanted. They wanted to see if there were any differences between men and women in terms of complications, such as surgical problems or device-related problems, in hospital readmissions due to heart failure or in [death rates](#).

Women fared worse by every measure, the investigators found.

"Fourteen percent of women were re-hospitalized for [heart failure](#), compared to 10 percent of men, after six months," Russo said.

"Device-related complications occurred in 5.9 percent of the women, compared to 3.8 percent of the men," she noted.

In addition, women were also more likely to die in the six months after the ICD was implanted. "Women had a mortality rate of 6.5 percent compared to 5.6 percent in men," Russo said.

Another expert, Dr. Gregg Fonarow, chief of the division of cardiology at the University of California, Los Angeles, David Geffen School of Medicine, said that additional studies are needed to figure out why the gender differences exist.

Fonarow, who was not involved with the study,

said the findings echo some previous research.

"Placement of an ICD for primary prevention has been shown to reduce sudden death and all-cause mortality in eligible men and women in randomized clinical trials, and are recommended in national and international guidelines," Fonarow said. "However, prior studies have suggested that women having an ICD placed may be at higher risk for complications and less likely to receive appropriate shocks compared to men," he noted.

"These findings may reflect that women undergoing ICD placement are often older, have more severe heart disease and have more [coexisting] conditions at time of ICD implantation. The mechanisms behind these findings may also be related to differences in body size or other differences in physiology," Fonarow suggested.

Until more is known, Russo said, she advised that women pay attention to their heart health. "If they develop any chest pain, lightheadedness or dizziness, they should seek medical attention early rather than later," she stressed.

Russo's study was not funded by any device makers; it was supported by the American College of Cardiology Foundation's National Cardiovascular Data Registry.

Russo reports receiving research grants or honoraria from Cameron Health, Medtronic, Boston Scientific, St. Jude Medical and Biotronik.

Fonarow serves on the clinical trial steering committee for a trial sponsored by Medtronic, which makes ICDs and other devices.

Research presented at medical meetings should be viewed as preliminary until published in a peer-reviewed journal.

More information: To learn more about sudden cardiac death, visit the [U.S. National Heart, Lung, and Blood Institute](#).

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