



Cooling Blankets Prevent Brain Injury during Heart Attacks

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The blankets are increasing brain survival rates for patients in cardiac arrest.

A cold blanket that induces hypothermia is preventing brain damage in South Florida heart attack patients.

The blanket, filled with chilled liquid, cools body temperature a few degrees, potentially decreasing the oxygen needs of brain cells. Patients are unconscious during the cooling and are allowed to warm up after about 24 hours.

Broward General Medical Center, [Boca Raton](#) Regional Hospital, Imperial Point Medical Center and Delray Medical Center are among South Florida hospitals that have acquired the technology.

Dr. Nabil El Sanadi, Broward Health's emergency-medical chief, called the technology "revolutionary," and said it also has been adopted over the past year or two by many South Florida paramedic units.

"The cooling keeps the organs from deteriorating," said El Sanadi, who helped write the American Heart Association's resuscitation guidelines in 2005 and 2010. "It's one of the most important things that has come out in the last 20 years."

Twenty years ago, only about 1 percent of heart attack patients survived without brain damage, El Sanadi said. The use of emergency coolants, including intravenous injections by doctors and paramedics, has increased healthy survival rates to 40 percent, he said.

Ron Howard thinks the cooling blanket helped save his life after a heart attack in November.

After Howard, 66, collapsed in his bedroom, his wife, Mary, administered CPR until [Palm Beach County](#) Fire-Rescue arrived. Paramedics stabilized him and took him to Delray Medical Center, where Dr. Richard Kim opened up an artery with a stent and placed the thermo-blanket on his chest, legs and arms to reduce brain-cell damage.

Brain cells begin to die after four minutes without oxygen. Howard's heart stopped for 20 minutes, Kim said.

Kim had to shock Howard's heart back to life at least six times while he was under the blanket. Howard remained in a coma for two months.

"I woke up one day in the hospital with full memory," said Howard, a [Palm Beach County](#) commissioner from 1988-1990 and former candidate for state education commissioner and agriculture commissioner.

The American Heart Association issued hypothermia guidelines for heart attacks in 2005, recommending chilling the bodies of patients who had several types of cardiac arrest to 90-93 degrees for 12-24 hours. The 2010 guidelines expanded the types of traumas for which the blanket can be used for, including drowning, asphyxiation and drug overdoses.

The blanket is also appropriate for some children, El Sanadi said.

It's still unclear why the blanket works to reduce brain trauma. It seems to reduce the oxygen needs of the brain and possibly prevent toxic chemicals from circulating, Kim said.

"In studies, people who get the blankets do better," he said. "There's nothing to lose."

Howard credits the blanket, as well as quick attention by his wife and paramedics, for his recovery.

"The thermal blanket was a significant contribution to my recovery," Howard said, "but if I wasn't rescued in a timely manner, I wouldn't be here now. I'd be dead."

<http://www.sun-sentinel.com/health/fl-hk-cooling-blanket-20110710.0.4461077.story>