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# NEWS RELEASE



THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL AT DALLAS

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DALLAS -- One day a pump with a computer brain may take over after a major heart attack until your heart heals enough to be on its own.

Eventually, doctors might be able to implant a self-contained pump unit in your body to completely replace the ailing heart.

While they consider human transplants as a promising method of saving the life of a patient with a stricken heart, physicians at The University of Texas Southwestern Medical School at Dallas also are working with a number of mechanical heart assist devices which may save even more lives.

For a year and a half, researchers at Southwestern have been working with a pump called a SIMAS (for Synchronized Isochronic Myocardial Augmentation System) which can quickly be hooked up to a person with an acute heart attack.

(more)

first add heart assist

Dr. Winfred Sugg, assistant professor in the Thoracic and Cardiovascular Surgery Division of the medical school, explains that the assist device can be installed in about 15 minutes and that it takes at least 50 per cent and probably more of the work off an attack-stricken heart.

The machine, which already has been used on a dozen patients, works by reducing the pressure against which the heart has to pump. When the heart pumps, the SIMAS draws blood out of the arteries, thus lowering the pressure. The moment the heart relaxes, the SIMAS pushes the blood back in, bathing the coronary arteries and helping the heart repair its damage.

Dr. Sugg and fellow workers have definite evidence that this increase of blood supply at the instant the heart is relaxing definitely reduces the size of areas of heart muscle damage in experimental animals.

Southwestern has recently received a complicated new heart assist device called a "Co-Pulsator." Here, a dual pump housed in a plastic container half the size of a cigar box is given sophisticated control by an electronics console. The principle is the same--reduce the work load of the heart and bathe the heart muscle with a supply of blood which helps it repair itself.

(more)

second add heart assist

Experimenters at the medical school are working in association with Hamilton Standard Division of United Aircraft, the company which built the device.

The National Heart Institute of the National Institutes of Health has now expended around \$19 million on this and other devices in a program to develop assist devices.

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