

Study shows man-made fat may limit damage to heart attack victims

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A man-made fat called Intralipid, which is currently used as a component of intravenous nutrition and to treat rare overdoses of local anesthetics, may also offer protection for patients suffering from heart attacks.

Current treatment for a [heart attack](#) focuses on limiting the duration of the ischemic period, when blood flow to tissues is reduced, and on subsequently opening [arteries](#) to reestablish normal coronary blood flow. It is well known that injury to the [heart muscle](#) can occur after oxygen and [nutrients](#) in the blood flow back to deprived cells, a phenomenon known as reperfusion injury, and scientists have been seeking ways to minimize such injury.

A UCLA preclinical study identified how Intralipid — a fat emulsion made up of a combination of soy bean oil, egg phospholipids and glycerin that provides essential fatty acids — can prevent extensive heart damage and help preserve heart function when used during the return of blood flow to the heart immediately following a heart attack.

This research shows that intralipid may help cell integrity and function when the body is under stress, such as during a heart attack, thus introducing a new way to significantly decrease damage to the heart muscle due to reperfusion injury or to prolong the tolerance of a [tissue](#) or an organ to lack of oxygen.

The findings may have implications for future therapies. The technique

is not limited to the heart, researchers say, and could potentially be used for any ischemic organs suffering a blockage in blood flow or for organs used for transplant.

Provided by University of California - Los Angeles Health Sciences

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