

Smokers less likely to survive a heart attack

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Smokers have a lower chance of surviving a heart attack than non-smokers, according to new data compiled by researchers at Jordan University of Science and Technology in Irbid. Levels of Alpha-1 Anti Trypsin (A1AT)—a protein in the liver that protects the body's tissues—in smokers were "significantly less" than in non-smokers, the

study found. Yet, no difference was detected in hypertensive and non-hypertensive individuals. The researchers will present their findings in person at the American Physiological Society's (APS) annual meeting at Experimental Biology 2022 in Philadelphia.

Approximately 1.5 million heart attacks and strokes happen annually in the U.S., according to the U.S. Department of Health and Human Services' Division for Heart Disease and Stroke Prevention. It is believed A1AT could offer protection to cardiac tissue when it is released during a [heart attack](#).

"The aim of this study was to compare the plasma levels of A1AT released in smokers and non-smokers, and between hypertensive and non-hypertensive individuals after an attack," reported Said Khatib, Ph.D., a co-author of the study.

The human study was conducted in 29 adult men and 11 [adult women](#) through [blood samples](#) drawn within one, four, 24, 48 and 96 hours of a [heart attack](#) diagnosis. Participants were divided into four groups of smokers and non-smokers, and hypertensive and non-hypertensive.

Researchers believe that maintaining appropriate levels of A1AT in smokers during a heart attack will improve their chances of survival.

More information: Abstract: "Time course of blood level of alpha-1 antitrypsin over 96 hours in smokers and hypertensive patients after acute myocardial infarction," [experimentalbiology.org/](#)

Provided by Experimental Biology

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