Research reveals new way to lower blood pressure: a drink with three characters

Authors: Eric Stewart Carl Cervantes Jessica Barker Brandon Atkins Cody Frederick

Published Date: 08-04-2015

California State University-East Bay

School of Exercise and Sport Science

Three startup companies that have split off from the University of Tokyo recently discovered how to develop more effective blood pressure lowering pills by improving a substance called L-carnitine.

Every day, people suffering from high blood pressure consume at least 1.5 million calories that contain L-carnitine. Without this substance, the heart cannot regulate blood pressure enough, leading to heart attacks, strokes and sudden death. And many a time, those that consume L-carnitine themselves will become obese.

But this is not the end of the story.

L-carnitine, or instead, more specifically, the neuroactive molecules made out of it, is an essential amino acid used as a neurotransmitter.

According to the university $\hat{a} \in \mathbb{R}^T$ Research on L-carnitine Systems and Animals (REALiA), this amino acid used to become neuroactive when it $\hat{a} \in \mathbb{R}^T$ in properly oxygenated conditions.

Using animal models, the teams at NLBI and Sumioni Hospital discovered how L-carnitine is broken down and can be fermented. By letting our small blood vessels and coronary arteries receive oxygen-rich blood, the L-carnitine molecule can break down and become the active neuroactive part of the organ.

Researcher Shinya Nambu of Sumioni Hospital says: "What we believe is that toxic chemicals directly in our environment could lead to other adverse medical conditions such as cardiovascular disease, even as early as childhood.â€

The researcher contends that with this new knowledge, the scientists have found a way to control the activity of L-carnitine, which has the potential to promote a more healthy heart in individuals with high blood pressure.



A Bird Standing On The Side Of A Dirt Road