

True

Health is a matter of trust

RESULTS
OF OUR
RESEARCH



Drugs intended to reduce blood pressure, as well as correct arrhythmias and some forms of heart disease, are the most commonly prescribed pharmaceuticals in the United States (US) today. One in every three adults, or approximately 75 million people, is diagnosed with high blood pressure in the US and many more have pre-hypertension. Around 15 million patients in the US have some form of irregular heartbeats, or arrhythmias. The most commonly prescribed drugs to treat these and other conditions are the so-called “channel-blockers” or “agonists”, which include calcium, sodium and potassium channel blockers. Sales of these drugs have reached \$6 billion worldwide. In the US, calcium channel blockers are the eighth largest drug class by prescription sales.

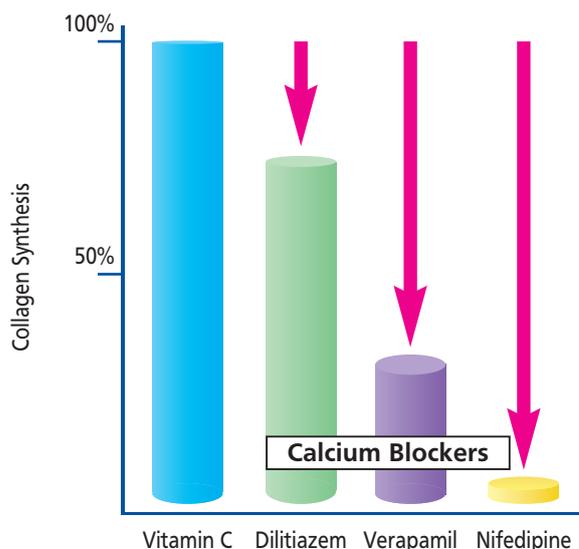
Calcium Blockers Inhibit Collagen Formation in Vascular Wall Cells

Frequently Prescribed Cardiovascular Medication can lead to Weakening of the Arterial Walls

These drugs prevent calcium (and other valuable minerals) from entering the inside of the cells by blocking specific channels located in the walls of the smooth muscle cells lining the blood vessels, the cardiac muscle cells (myocytes), and other tissues. By blocking these channels, the drugs cause relaxation of the cells and other pharmacological effects. Sodium transport channels are also used by Vitamin C to enter the cells.

A new study conducted at the Dr. Rath Research Institute and published in the American Journal of Cardiovascular Disease¹ shows that, in addition to blocking the entry of calcium, these drugs obstruct the uptake of vitamin C by the cells. Vitamin C is an essential nutrient for the production of collagen – the key stability molecule for blood vessel walls and connective tissue in general. Its long-term deficiency is especially detrimental for the cells building the artery walls as it can cause microscopic structural damage, followed by the build-up of atherosclerotic deposits – the cause of heart attacks and strokes. The study indicates that among the studied channel blockers, nifedipine (i.e., Procardia, Nifediac)

Calcium channel blockers inhibit collagen synthesis in human fibroblasts cells



A study by the Dr. Rath Research Institute shows that calcium blockers – especially nifedipine – block the production of collagen, the most important stability molecule for the connective tissue and blood vessel walls. Vitamin C, on the other hand, is able to reverse the blocking of collagen production.

Calcium Blockers Inhibit Collagen Formation in Vascular Wall Cells

has the most pronounced effect, causing a significant decrease of collagen production by the human vascular muscle cells. Taking into account that these drugs are supposed to be used for an indefinite time, their detrimental health consequences are of great concern.

In this aspect, the study shows that calcium-blocker-induced inhibition of collagen production by the cells can be compensated for by providing vitamin C. In particular, supplying fat-soluble vitamin C (ascorbyl palmitate), rather than simple vitamin C, resulted in significantly higher vitamin C concentration within the cells, further supporting collagen production.

The fact that calcium channel blockers – taken by tens of millions of heart patients worldwide in the belief that they can help prevent heart attacks – are actually increasing the risk for heart attacks due to weakening of the heart muscle and blood vessel walls, has been a major impediment in cardiology. In addition, increased risk of breast cancer and gum disease has also been reported. Based on the new study results it is possible that

many of the side effects of these medicines could be prevented simply by supplementation of a synergistic combination of vitamin C, including ascorbyl palmitate, and other essential micronutrients.

Ref:

1. Ivanov V, et al., *Am J Cardiovasc Dis* 2016;6(2):26-35

Online-Publication (Download):

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4913212/>

Important Health Information for All

This information is provided to you courtesy of the Dr. Rath Research Institute. Led by two former colleagues of two-time Nobel Laureate Linus Pauling († 1994) this Institute has become a leader in the breakthrough of natural health research in the field of cancer, cardiovascular disease and other common diseases. The Institute is a 100% subsidiary of the non-profit Dr. Rath Foundation.

The groundbreaking nature of this research poses a threat to the multi-billion dollar pharmaceutical "business with disease." It is no surprise that over the years the drug lobby has attacked Dr. Rath and his research team in an attempt to silence this message. To no avail. During this battle, Dr. Rath has become an internationally renowned advocate for natural health saying, "Never in the history of medicine have researchers been so ferociously attacked for their discoveries. It reminds us that health is not given to us voluntarily, but we need to fight for it."

- You can print out copies of this News Page at: www4.dr-rath-foundation.org/research_news/index.html and share it with your friends and colleagues.
- This information is based on scientific research results. It is not intended to substitute for medical advice to treat, cure, or prevent any disease.
- © 2016 Dr. Rath Research Institute, Santa Clara, California, USA. We encourage the distribution of this News Page, provided its content remains unaltered.

For further information, please refer to the following address:

Art.-Nr. 6567