

Lower Blood Pressure: Surprising New Study

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There is now a new natural weapon to combat against the growing population of high blood pressure sufferers.

Now this new weapon is as close as your backyard. What I am talking about is **good old sunlight**. Blood pressure levels are commonly higher during winter months. The question you may ask is what is the mechanism that allows sunlight to lower blood pressure?

British researchers have figured out why. The answer is **nitric oxide (NO)**.

Nitric oxide is known to reduce blood pressure by evoking vasodilation either directly by causing relaxation of vascular smooth muscle or indirectly by acting in the rostral brainstem to reduce central sympathetic outflow, which decreases the release of norepinephrine from sympathetic nerve terminals.

Basically, **nitric oxide increases the elasticity of the artery walls** and helps to normalize high blood pressure. An increasingly large body of literature suggests that alterations in the NO system may play an important role in the development or maintenance of clinical hypertension.

What they found is that **nitric oxide stored in the top layers of the skin** reacts to sunlight and causes blood vessels to widen as the oxide moves into the bloodstream. That, in turn, lowers blood pressure.

According to researcher Martin Feelisch, a professor of experimental medicine and integrative biology at the University of Southampton, exposure to **ultraviolet light might help reduce the risk for heart disease**.

"This new study finds that **UV light exposure to the skin induced nitric oxide release and modestly lowered blood pressure**, suggesting that this may play a role in modulating blood pressure," said Fonarow, a spokesman for the American Heart Association.

In 2009, a team led by the University of Edinburgh's Richard Weller showed that **human skin and the dermal vasculature contain significant stores of NO**—much more than can be found circulating in the blood—and that these stores could be mobilized by UVA (long-wave UV) irradiation.

"This study provides suggestive evidence that skin-derived NO metabolites may have a role in modulation of blood pressure upon UV exposure," Thomas Michel, a professor of medicine and biochemistry at Harvard Medical School.

Reference:

Donald Liu, Bernadette O Fernandez, Alistair Hamilton, Ninian N Lang, Julie M C Gallagher, David E Newby, Martin Feelisch and Richard B Weller, UVA Irradiation of Human Skin Vasodilates Arterial Vasculature and Lowers Blood Pressure Independently of Nitric Oxide Synthase, Journal of Investigative Dermatology 20 February 2014

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