

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/dermconsult/soaking-up-the-sun-to-lower-blood-pressure/11860/>

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Soaking Up the Sun to Lower Blood Pressure

Announcer:

Welcome to *DermConsult* on ReachMD. On today's program, we'll hear from Dr. Richard Weller, Professor of Dermatology at the University of Edinburgh in Scotland. Dr. Weller discusses his recent research on the impacts of sun exposure on blood pressure. Let's hear from him now.

Dr. Weller:

I have shown this mechanism by which shining sunlight at people moves nitric oxide from stores in the skin to the circulation and it lowers blood pressure, but that's, of course, a one-off effect. I did some work in America earlier this year trying to pick apart this a little bit more, and we published a paper in the *Journal of the American Heart Association*, and we looked at 340,000 Americans who were kidney dialysis patients. Now, the reason we looked at them is that they have their blood pressure measured 3 times a week, week in week out, year in year out, and they were having their blood pressure measured at 2,000 different dialysis centers, and we were able to look at the UV at each of those 2,000 sites throughout the year. We do that with satellite data. But we could also look at things like temperature at those sites. And what we were able to do was we could then cross-reference that ultraviolet data and temperature data with the blood pressure data from 340,000 people 3 times a week for 3 years—so this is terabytes of data—and what we were able to show was that long-term the more UV you have independently of temperature the lower your blood pressure.

Now, this is important because we've known for really throughout my professional career that there's a big seasonal variation in blood pressure. Blood pressure in Britain, in Northern Europe, is about 4 mm of Mercury lower in summer than winter. That's systolic blood pressure. And everyone has always said, "Oh well, if it's not vitamin D, it's the temperature." Well, it's not the vitamin D. All the clinical trials show that. What our study on all these dialysis patients was able to show was that it's a bit the temperature, but only about half of it's the temperature. The other half is the effect of UV independently of temperature, so it's really further evidence that UV correlates to lower blood pressure, the biggest killer in the world.

Announcer:

That was Dr. Richard Weller talking about some of his most recent research on the benefits of sun exposure. To access other episodes in this series, visit ReachMD.com/Derm-Consult, where you can Be Part of the Knowledge. Thanks for listening!