Why Soaking Up the Sun to Treat COVID-19 Isn't a Bright Idea



Experts say that while some studies have shown ultraviolet radiation can kill microorganisms, it is not sanctioned as a COVID-19 therapy, and such exposure can be dangerous for your health. Getty Images

- While some research has been done on ultraviolet radiation as a way to kill microorganisms, it is not sanctioned as a COVID-19 therapy.
- The research that's been done has shown this exposure can be dangerous for people's health.

 New research shows that medical misinformation spread by public figures and politicians has led to spikes in online searches for unvetted COVID-19 treatments.

FDA Notice

The FDA

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have removed the Emergency Use Authorization (EUA) for hydroxychloroquine and chloroquine for the treatment of COVID-19. Based on a review of the latest research, the FDA determined that these drugs are not likely to be an effective treatment for COVID-19 and that the risks of using them for this purpose might outweigh any benefits.

Last week during a press conference, the President of the United States floated scientifically unfounded recommendations for potential COVID-19 treatments. He made the dangerous suggestion that injecting cleaning supplies might work as a potential treatment.

He also mused that exposure to sunlight could be an effective therapy for the coronavirus. "There's been a rumor that — you know, a very nice rumor — that you go outside in the sun or you have heat and it does have an effect on other viruses," Donald Trump said at the conference, according to CNN.

The strange statement certainly raised eyebrows from the medical community. In short: No, catching some rays of sunshine won't treat COVID-19.

Beyond not being a proven therapy for the disease, unnecessary exposure to sunlight — whether outside or from tanning beds — puts people at risk for a host of other health threats. From skin cancer risk to heat stroke to violating physical or social distancing orders, going outside to bask in the sun is a bad idea right now.

"The dangers of unprotected exposure to UV [ultraviolet] radiation from the sun and indoor tanning beds are well known and supported by an extensive amount of medical literature," said Dr. Sara Hogan, a health sciences clinical instructor at the David Geffen School of Medicine and a dermatologist at UCLA Medical Center, Santa Monica.

Hogan told [name removed] that significant UV exposure from the sun and indoor tanning "is an avoidable risk factor" for contracting the deadliest form of skin cancer, melanoma, as well as nonmelanoma skin cancers. It's also a concern for premature aging of your skin.

"If you have been diagnosed with COVID-19, please follow the guidance of a physician," she stressed.

What we know about UV radiation as a therapy

But is there any truth to Trump's suggestions that UV light could affect the novel coronavirus?

Dr. Tina Bhutani, MAS, a dermatologist who is the co-director of the Dermatology Clinical Research Unit and co-director of the Psoriasis and Skin Treatment Center at University of California San Francisco, said there has been research that shows ultraviolet C, or UVC light, has been shown to kill other viruses.

"Work is underway to see if it can actually kill this novel coronavirus,"
Bhutani told [name removed]. "It is being studied as a possible mechanism for disinfecting things like masks, etc., that are in short supply."

Hogan said "it has been known for over 100 years" that UV light — whether from the sun or from specially designed light bulbs — can kill microorganisms.

In fact, this kind of light is used to sterilize operating rooms, purify water supplies, and disinfect pharmaceuticals and food items. That being said, it is "not without significant risk to exposed humans."

She said that UV light comes in three forms: UVA, UVB, and UVC. The first two are found outside and can "disinfect" bacteria and viruses to an extent.

The health risks of UV radiation exposure

That said, exposure to this kind of radiation can damage the DNA within a person's cells.

This causes sunburns and sun damage that ultimately can lead to skin cancer. This is why dermatologists suggest you use broad-spectrum sunscreens to block and filter out these rays.

Hogan said the UVC light that Bhutani mentioned is naturally blocked by our atmosphere and ozone layer — it never reaches the planet's surface.

This kind of light "destroys RNA and DNA more effectively than UVA or UVB, such that the replication of bacteria and viruses, like COVID-19, halts," she added.

She explained that the amount of UVC that would be needed to accomplish "complete viral eradication is not safe for humans and could result in burns, eye injuries and even skin cancer."

In short, there is nothing to back Trump's suggestion.

Beyond skin cancer, both Bhutani and Hogan said unprotected exposure increases risk of heat stroke, exhaustion, dehydration, and severe burns.

Hogan emphasized that any time you might be exposed to UV radiation you need to protect yourself outside by wearing lightweight clothing, a wide-brimmed hat, sunglasses, and broad-spectrum sunscreen with at least SPF 30 on areas of exposed skin.

If you go for a physical distance-friendly walk, spend time in the shade.

"Avoid tanning beds," she added.

Beyond all of this, Trump's suggestions that people go outside to be exposed to the sun runs counter to shelter-in-place and physical distancing guidelines to protect against COVID-19.

"Stay-at-home orders differ by jurisdiction, and should be followed accordingly. Generally, in areas where it is possible to maintain a safe social distance of 6 feet from people outside your household, it is okay to go outside for a walk or exercise," Hogan said. "In areas where there is widespread COVID-19 community transmission, the CDC also recommends wearing cloth face coverings while in public spaces."

She added that physical distancing while being outside does not mean "spending time at a crowded public space, like for example, a pool or the beach."

The dangers of unproven treatments

On Wednesday, a new study

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published in the journal JAMA Internal Medicine, revealed that the public endorsement from figures like Trump and tech entrepreneur Elon Musk of unproven COVID-19 therapies play a big role in shaping public awareness around "treatments" that could ultimately be dangerous.

The researchers looked at U.S. Google searchers for the drugs chloroquine and hydroxychloroquine after they were given the intense spotlight of Trump and Musk's fame and media platforms.

Researchers used Google Trends, an aggregate of Google searches, to track searches for the drugs in the United States from Feb. 1 to March 29.

The results? Searches for purchasing hydroxychloroquine and chloroquine were 1,389 percent and 442 percent higher, respectively, since both men gave them their public endorsements.

Searches remained high even after reports of deadly chloroquine poisoning in Arizona on March 23. Searchers for chloroquine were 212 percent higher

and hydroxychloroquine 1,167 percent higher after the news broke of the poisonings.

"In absolute terms, we estimate there were more than 200,000 total Google searches for buying these two drugs in only 14 days following high-profile endorsements," Mark Dredze, PhD, study co-author and associate professor at Johns Hopkins University, said in a press release. "This could be evidence that thousands of Americans were interested in purchasing these drugs."

This brings the conversation back to the problem of medical misinformation and the dangers it poses. Whether on social media or words from the presidential podium, we live in a time when inaccurate — sometimes life threatening — misinformation circulates widely about COVID-19 and ways to treat it.

There still is no cure, and no clear, definitive treatments have been established by the medical community.

With inaccurate information disseminated about household cleaning items, unvetted drugs, or even exposure to sunlight radiation, it can make the job of actual physicians harder. They are facing an unprecedented pandemic and dangerous treatment suggestions circulated at the highest levels of political authority.

Bhutani said this puts people in a position of making sure they seek vetted information. As always, speak with your doctor.

"Research sources to see where the information is coming from or only get information from trusted sources," she said.

The bottom line

Last week President Donald Trump suggested that exposure to sunlight might be an effective treatment for COVID-19.

While some research has been done on ultraviolet radiation as a way to kill microorganisms, the medical community says UV light is not sanctioned as a COVID-19 therapy, and the research that has been done has shown this exposure can be dangerous for people's health.

As always, experts recommend you practice physical distancing, and when you do go outside, apply SPF 30 sunscreen, wear a wide-brimmed hat, and cover exposed skin with clothing.

The medical misinformation spread by figures public figures has led to spikes in online searches for unvetted COVID-19 treatments, according to a new study

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Please seek information from trusted sources and consult your medical provider, doctors say.