

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/medical-industry-feature/climate-change-and-skin-health-challenges-and-adaptive-strategies/32932/>

ReachMD

www.reachmd.com
info@reachmd.com
(866) 423-7849

Climate Change and Skin Health: Challenges and Adaptive Strategies

Announcer:

You're listening to *Clinician's Roundtable* on ReachMD. On this episode, Dr. Eva Parker will discuss the relationship between climate change and cutaneous disease. Dr. Parker is an Assistant Professor of Dermatology and Core Faculty at the Center for Biomedical Ethics and Society at Vanderbilt University Medical Center, and she spoke on this topic at the 2025 AAD Annual Meeting. Let's hear from Dr. Parker now.

Dr. Parker:

Climate change certainly has influenced the prevalence and severity of skin disease. Because skin is the largest organ and our primary interface with our environment, many skin processes and skin diseases are actually climate sensitive. This includes thermoregulatory functions in the skin, like sweating and vasodilation that help us cool, and numerous infections, autoinflammatory skin diseases, and cutaneous malignancies, among many others. We also see important influences on skin health from heat, air pollution, wildfire smoke, ultraviolet light, and the impacts of extreme weather events, such as flooding.

Additionally, climate change exacerbates existing health disparities that stem from systemic racism and colonialism, and climate change disrupts access to dermatologic care. We also see that severe storms, flooding, drought, and sea level rise are really key factors in water and food insecurity, and they worsen poverty. These are key drivers of migration, which in turn alters the patterns of infectious diseases that we see globally.

I think atopic dermatitis is probably our most climate-sensitive dermatosis. It is acutely sensitive to air pollution and wildfire smoke. Additionally, heat may drive pruritus or itch, and many of the medications that we prescribe to manage pruritus actually diminish thermoregulatory capacity, which predisposes patients with atopic dermatitis to a greater risk of heat stroke. Also, during extreme weather events, such as flooding, we observe greater risks of infection due to the inherently compromised skin barrier in atopic dermatitis as well as diminished access to care and lost or destroyed medications.

Skin cancer is another important climate-sensitive or environmentally sensitive disease. And certainly, we see millions of cases of skin cancer in the United States, and this is because stratospheric ozone destruction from decades of use of chlorofluorocarbons have increased UV, and UV acts synergistically with heat and air pollution to enhance carcinogenesis. And some of these same factors, like UV, heat, and air pollution, flare other autoinflammatory skin diseases as well, and that includes things like pemphigus, hidradenitis suppurativa, and psoriasis. And truly, the list goes on and on.

Dermatologists and medical researchers are struggling to adapt, and we're doing better at adaptation, partly because there's increasing recognition in dermatology around the impacts of climate change on skin health and care delivery specifically. One important aspect for dermatologists to build resiliency is educational offerings, such as our scientific forum and the annual meeting of the Expert Resource Group on Climate Change & Environmental Affairs. These provide critical opportunities for dermatologists to learn about climate impacts so, as a specialty, we can really become climate literate. Our climate literacy as dermatologists allows us to better adapt, and it also helps our patients adapt and mitigate the effects of climate change.

Additionally, we are now recognizing the environmental impact of our own care delivery, and we're really increasing education around reducing our carbon footprint, our energy usage, and our waste production in dermatology. Then, lastly, because we still have a number of knowledge gaps to fill, many researchers are focusing on categorizing and studying the effects of climate change on a wide variety of skin diseases. I think collectively, the efforts around research, education, and reduction in carbon footprint collectively allow us as a

specialty to better mitigate and adapt to climate change and help build resilience, not only within our specialty, but also for our patients.

What can we do to adapt and prevent climate-related impacts on skin health? As dermatologists and physicians in general, the most important thing we can do is educate our patients. For example, heat-related counselling can easily be incorporated into our discussion around sun protection because many of the behaviors and measures for the two overlap. This is especially important for patients who may be at extremes of age—so very young or very old—because physiologically, they're more at risk for heat stroke. Also, it's important for our patients who are on medications that alter their capacity to regulate temperature and for those with extensive skin disease.

Dermatologists should also be astute to those who are most vulnerable to climate effects and to educate our patients accordingly. We need to be sure that these patients have a plan and a "go" bag when extreme weather events are imminent, and in that "to go" bag, they need to have things like their medications and copies of their medical records. We need to be sure that patients can care for their skin properly even if they're displaced during an extreme weather event.

And then there's a lot of opportunity for us to use digital technology. Everyone has a cell phone these days, and so there are a number of apps that can be downloaded that help to track UV index, temperature, and heat as well as air pollution and air quality. And for those patients who have inflammatory skin diseases who may be more at risk for flares because of exposure to heat or air pollution, we can teach them to check those indices prior to doing outdoor activities, and if air quality is really poor, maybe they should change their plans and do activities indoor that day.

Lastly, we can think about how we prescribe medications and how we deliver care to reduce the impact that dermatologists are having on the environment in the course of treating our patients everyday.

Announcer:

That was Dr. Eva Parker discussing climate change and cutaneous disease. To access this and other episodes in our series, visit *Clinician's Roundtable* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!