

VIDEO: The future of skin allergy testing:

Skin allergies are common and often frustrating to diagnose. But new technology could soon help change that.

Dr. Alison Bruce, a dermatologist at the Mayo Clinic, is leading the development of an artificial intelligence (AI)- powered tool to support allergy patch testing. The tool is being designed to help patients self-apply test patches and use their smartphones to capture images over time, with technology offering guidance that could assist clinicians in diagnosis.

It's a promising step toward faster, easier, and more accessible skin allergy care, especially for people in rural areas or those with limited access to specialists. And it's one more way technology is being used to solve real-world problems in healthcare.

Video.	Audi
	Itchy skin. Swollen patches. A red, angry rash. Skin allergies impact nearly 1 in 5 people.
Alison Bruce, M.B., Ch.B. Dermatology Mayo Clinic 126-1:31	"That is when a substance comes into contact with the skin and causes a reaction."
	You may think of poison ivy triggering a reaction, but Mayo Clinic's Dr. Alison Bruce says jewelry, fragrances, lotions and many more substances can cause a skin reaction known as contact dermatitis.
	"What happens is the skin just turns red, itchy, flaky, scaly, kind of sometimes becomes fissured, if it's very severe, kind of becomes so red and inflamed that the skin breaks down and you get little cracks and crevices in the skin."
	A new tool in development at Mayo Clinic aims to help patients and their healthcare team determine the cause of the reaction.
	"We've been working on an AI tool to help with skin allergy testing, because in current state, if you suspect that, as a patient or your doctor suspects that you have allergic contact dermatitis, the way to test for that would be through patch testing."
	But testing can be time consuming — requiring patients to return to the dermatologists' office multiple days.
	"The idea behind having AI enhance what we're doing is, if you can imagine a situation where instead of going into your dermatologist, you were able to put the patches on your skin yourself, remove them at a predetermined time, and then use your cell phone, use the camera on your cell phone to image those

	reactions, and then AI would be potentially able to interpret the reactions to, yes, there's a red reaction that corresponds to nickel, and therefore you're allergic to nickel."
	Dr. Bruce says the new tool can improve the lives of those having skin reactions by making diagnosing more accessible and faster for patients.
	"It can be done remotely. It can be done with imaging, AI interpretation, et cetera. It really broadens that reach of people who need care that can't always make it to places like Mayo Clinic."
	For the Mayo Clinic News Network, I'm Alex Osiadacz.