

# I Might Just Go Dr. Oz On You



By Lila Abassi — May 10, 2016



Facelift via [Shutterstock](#) [1]

Dr. Oz has gotten himself into trouble (often with us) for referring to supplements as "miraculous." Just shy of divinity, scientists at Massachusetts Institute of Technology (MIT) have been able to create an artificial layer of skin that can essentially take years off your face ... oh, and it has medical value as well. I can visualize the pandemonium that will ensue once this product becomes commercially available -- think Black Friday sales at Walmart, except everywhere.

The authors of the [study](#) [2], published in *Nature Materials*, have been able to synthesize a wearable skin that is applied as a cream or ointment in a two-step process. The first layer is a silicone-based coating, a cross-linked network of alternating atoms of silicon and oxygen. Then a platinum coat is applied, which behaves as a catalyst that will form a strong film, which lasts on the skin for 24 hours.

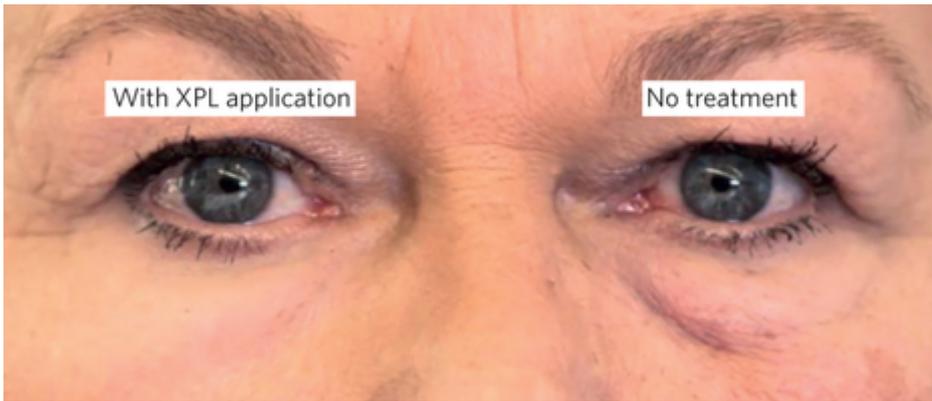
"It's an invisible layer that can provide a barrier, provide cosmetic improvement, and potentially deliver a drug locally to the area that's being treated. Those three things together could really make it idea for use in humans," according to [Daniel Anderson](#) [3], an associate professor in MIT's Department of Chemical Engineering and a co-founder of a company called Olivo Labs.

A primitive version of this product has been available to dermatologists for two years now, with celebrity backers. The impetus to create this film for the researchers was the challenge of developing a material which mimics the properties of skin that is lost over time, such as elasticity and firmness.

"We started thinking about how we might be able to control the properties of skin by coating it with polymers that would impart beneficial effects," said Dr. Anderson.

The material they were able to create matches the tensile strength of skin and is capable of withstanding over a 250 percent stretch without losing its shape (compare that to normal skin, which can be stretched about 180 percent).

The scientists applied this formulation on the under eyes of human subjects where there is a predisposition of forming “eye bags,” and the compressive force was capable of tightening that area of skin that, visually, was quite impressive.



Courtesy of Nature

“Up until now, there has been nothing that could restore the elastic property of skin, and this material does that,” according to [Barbara Gilchrest](#) [4], a dermatologist at Harvard Medical School in Boston. “Many people have tried to do this, and the materials that have been available up until this have not had the properties of being flexible, comfortable, nonirritating, and be able to conform to the movement of the skin and return to its original shape.”

This second skin can serve medical purposes in addition to its cosmetic appeal. The artificial layer can act as a barrier for skin to prevent fluid loss/maintain hydration, deliver medication and as a wound dressings.

I, for one, am willing to diverge from scientific skepticism and say that I will be standing in line when this artificial skin becomes available.

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[3] [http://www.sciencecodex.com/new\\_material\\_temporarily\\_tightens\\_skin-181989](http://www.sciencecodex.com/new_material_temporarily_tightens_skin-181989)

[4] <http://www.nature.com/newproxy.downstate.edu/news/transparent-film-smoothes-sagging-skin-back-into-shape-1.19876>