

# Skin cell transplant may offer new hope to vitiligo patients

June 22 2012, By Jenifer Goodwin, HealthDay Reporter

---



Photo courtesy: James Heilman, MD

In small study, some people had about 45 percent return of skin color.

(HealthDay) -- Skin cell transplants can restore pigment to the skin of some patients with the disorder known as vitiligo, new research finds.

Vitiligo is a [skin condition](#) in which [melanocytes](#), or the cells in skin that produce pigment, are destroyed. The result is the skin loses [color](#), often in patches. [Vitiligo](#) affects about one in every 200 people in the United States.

In the study, researchers from Henry Ford Hospital in Detroit removed a postage stamp-sized sample of skin from the upper thighs of 23 patients. Participants ranged in age from 18 to 60 and included whites, blacks, Asians and [Hispanics](#).

Researchers then isolated melanocytes and keratinocytes, another type of

skin cell, into a [liquid solution](#).

Next, researchers used a device called a dermabrader to scrape off the white patches of skin, and sprayed the liquid containing the [skin cells](#) onto the skin, allowing it to disperse over the entire white patch. The area was then covered in dressings for about a week.

Gradually, the transplant, including the melanocytes, took hold and began to grow. Over the course of one to six months, color gradually returned to the white [patches](#).

On average, the skin regained about 45 percent of its original color, although some patients saw better results than others.

The technique worked best in people who have what's known as "focal" or "segmental" vitiligo, in which color is lost only on one portion or side of the face or body, while the other is normally pigmented. On average, they had about 68 percent of their natural color return.

The treatment didn't work as well in people with "symmetrical" vitiligo, or pigment loss on both sides of the body or face, said senior study author Dr. Iltefat Hamzavi, a senior staff physician in Henry Ford's department of dermatology.

Researchers believe the [immune system](#) is more active in those patients, and continues to destroy color-producing cells, including the transplanted ones.

"This is a step forward but it's not a solution for everybody," Hamzavi said.

There were few complications. No patients developed an infection, and only one patient developed mild scarring, he said.

The study was published in a recent issue of the *Journal of the American Academy of Dermatology*.

Although this is among the first published studies on using skin [cell transplants](#) to treat vitiligo in the United States, a similar technique has been used in India and Saudi Arabia, Hamzavi said.

Vitiligo can occur at any age, but it often strikes when people are in their teens and 20s, Hamzavi said. It can be an especially difficult time for people to deal with the cosmetic issues of the disease, he added.

Among the patients who had the procedure done, one admitted he would wear bandages on his face in public to avoid stares; others avoided socializing, Hamzavi said. After their pigment was restored, the patients no longer practiced these behaviors, he said.

It's unknown how long the color remains intact. Researchers followed patients until about six months and none had lost color, while initial reports from Saudi Arabia and India have also not described color loss over time, Hamzavi said.

The researchers are continuing to offer the procedure at their hospital, and Hamzavi said they handle several cases per month.

Dr. Michele Green, a dermatologist at Lenox Hill Hospital in New York City, said the technique would be welcomed by many patients and dermatologists. Currently, there isn't much in the way of treatments for vitiligo, Green noted.

"It's amazing, if it's really as good as they say it is," Green said. "There are some laser [procedures] that are mildly effective, but short of that there is no treatment for vitiligo. And it's cosmetically extremely disfiguring for these patients. It's really big news."

But, Green cautioned, more research needs to be done. Only 23 [patients](#) were treated this way, and not all were helped, she said.

In addition, more needs to be learned about who has the best chances of success with the treatment, including whether it works better on new-onset vitiligo or if it works as well if people have had the disease for many years.

"It's a great preliminary study and very promising, but more investigation needs to be done," Green said.

**More information:** The [U.S. National Institute of Arthritis and Musculoskeletal and Skin Diseases](#) has more on vitiligo.

Copyright © 2012 [HealthDay](#). All rights reserved.

Citation: Skin cell transplant may offer new hope to vitiligo patients (2012, June 22) retrieved 17 April 2024 from

<https://medicalxpress.com/news/2012-06-skin-cell-transplant-vitiligo-patients.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--