

Microneedling improves appearance of acne scars

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It turns out creating tiny injuries on your face with needles actually helps decrease the appearance of acne scars.

Researchers from Boston University School of Medicine (BUSM) have found that this process, called microneedling, helps rejuvenation and decreases the inflammation and scarring that often plagues those with [acne](#).

The American Academy of Dermatology reports that acne is the most common skin condition in the U.S., affecting up to 50 million Americans annually. In response to the growing popularity of microneedling, the U.S. Food and Drug Administration in 2018 issued regulations on what is considered a safe, medical grade microneedling device. Even so, concerns about efficacy and safety have been raised over the years.

The researchers reviewed all the scientific studies done on microneedling for the treatment of acne scars from 2009 to 2018. They analyzed 33 studies from this 10-year period studying both efficacy of treating acne scarring with microneedling, microneedling in combination with other topical treatments, as well as overall patient satisfaction. Their research found all 33 articles analyzed showed an improvement of acne [scar](#) appearance as well as increased patient satisfaction when microneedling was used in combination with another therapy. Also, under the microscope the benefits of microneedling can be observed, including a decrease in inflammatory markers released by cells, and an

overall increase in collagen and skin rejuvenating cell markers to help heal scarring.

"While there have been multiple smaller research studies and case reports which have shown the efficacy of microneedling with acne scarring, there has never been any consistent data and no one decided to take a step back, synthesize and look at what the evidence was telling us as a whole," explained corresponding author Neelam Vashi, MD, associate professor of dermatology at BUSM and director of the Boston University Cosmetic and Laser Center at Boston Medical Center. "With this systematic way of looking at all the data over the past decade, it is clear that microneedling works and helps reduce the appearance of acne scars for patients. Now the next step is to standardize this information and look at better ways to optimize this treatment for our patients."

According to the researchers now that these studies have been reviewed, the gap in the research for microneedling can be addressed including a need for a well-designed randomized controlled trials that compare microneedling to other popular minimally invasive treatments.

"Microneedling works. Now it's time to evaluate how these treatments effect those with darker skin and how we can create strategies that are cost effective for not only the physician providing these services but most importantly for the patients who want solutions to these often debilitating scars."

More information: Nisma Mujahid et al, Microneedling as a Treatment for Acne Scarring, *Dermatologic Surgery* (2019). [DOI: 10.1097/DSS.0000000000002020](https://doi.org/10.1097/DSS.0000000000002020)

Provided by Boston University School of Medicine

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