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ANTI-AGING

Everything to Know About Plasma Skin Resurfacing

Collagen-stimulating plasma treatments have gone viral on social media, but are they safe and effective? We investigate.



By Brittany Burhop Fallon, Beauty Director · Jul 8, 2022



SERGEY KATYSHKIN GETTY IMAGES, IMAGE USED FOR ILLUSTRATIVE PURPOSES ONLY

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If you've ever been mesmerized by a neon sign—quite the backdrop for a fun photo opp—you've seen plasma at work: Glass tubes are filled with gas, and when the light is turned on, electricity flows through the tubes, charges the gas and creates plasma. Though platelet-rich

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“They put on a numbing cream first, and then burn these little dots. Not bad at all. And after, it feels like a sunburn the first night. Day after feels utterly fine. But looks—interesting.” Another area on the face where plasma treatments can smooth and tone is around the mouth for the so-called “barcode lines,” the little vertical lines where lipstick bleeds. “These lines can be caused by sun damage,

How It Works

“As we understand from physics, energy **plasma** is essentially a ball of lightning,” says Beverly Hills, CA dermatologist [Q Ava Shamban, MD](#). “Lightning creates plasma by energizing molecules in the air that generate a ball of energy.” In skin care, nitrogen plasma can be created by a device—usually a ‘pen,’ like PlasmaPen that delivers the energy in a controlled fashion to trigger skin cells called fibroblasts to make new **collagen**.

“Plasma resurfacing—it’s also called fibroblast therapy—is hotter than microneedling with radio frequency, and in my opinion, more effective, but the end goal is the same: create tiny injuries in the skin that then stimulate a wound-healing response, and ultimately result in collagen production and mild tissue tightening,” Dr. Shamban adds. “Radio-frequency microneedling sends some heat to the skin through tiny little needles, but plasma energy is like a furnace—in a pinpoint.”

Who It’s Best For

Though energy-based treatments are often used for “prejuvenation,” Dr. Shamban says plasma energy is for an older patient with signs of aging like crepey skin, fine lines and wrinkles that need a more powerful resurfacing approach. And, like many laser treatments, plasma is generally only used on lighter skin tones—Fitzpatrick Types 1 through 4—because, as Dr. Shamban notes, “theoretically it can cause some lightening of the skin because it’s so hot, it can destroy the melanocytes.”

Treatment Zones

To minimize puffiness, hooded lids and droopy under-eye bags, plasma resurfacing can be done on the upper and lower eyelids, which oculoplastic surgeon [Q David Schlessinger, MD](#) says works well “because the skin there is thinner and heals quickly” (though he prefers blepharoplasty for its predictability and lasting results). Patients can typically see an improvement for up to 12 months, but some may need a second treatment at the six-month mark. Supermodel [Paulina Porizkova](#) took to social media to give her followers an up-close look at the “polka dots” around her eyes following a PlasmaPen treatment. “It doesn’t really hurt,” she captioned her photo (below).

“They put on a numbing cream first, and then burn these little dots. Not bad at all. And after, it feels like a sunburn the first night. Day after feels utterly fine. But looks—interesting.” Another area on the face where plasma treatments can smooth and tone is around the mouth for the so-called “barcode lines,” the little vertical lines where lipstick bleeds. “These lines can be caused by sun damage, volume loss or motion—talking, eating, smiling, etc.— and I’ve found that the plasma is most effective when they’re caused by sun damage,” explains Dr. Shamban. “We assess the patient’s skin to determine these factors before we proceed with the treatment.”

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Instagram / Paulina Porizkova

What to Expect

Prior to plasma resurfacing, a topical anesthetic will be applied to the treatment area and left on for up to an hour. “The procedure can be uncomfortable, but it is tolerable,” says Dr. Schlessinger, noting that the eyelids take about 15 minutes. As far as downtime, Palo Alto, CA facial plastic surgeon [Q David M. Lieberman, MD](#) adds that patients can expect some swelling, peeling and scabbing. “All aesthetic treatments have some sort of downtime to get results, but plasma recovery is a little longer than microneedling, approximately five to 10 days depending on the area.” And, as with other collagen-stimulating treatments, it can take up to three months to see results.

Managing patients’ expectations is also important for providers, says Palo Alto, CA facial plastic surgeon [Q Sachin Parikh, MD](#). “It is always eye-catching when a new nonsurgical skin-tightening treatment comes out, but the most robust, long-lasting results will always come from surgery. This procedure may buy you time with subtle improvements, but I recommend talking to your doctor about your best option.”

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Safety Measures

In March, the FDA warned against using a plasma device called Renuvion for skin resurfacing and tightening due to the risk of serious burns and other adverse effects. A few months later, the FDA **cleared** the Renuvion Dermal Handpiece for the treatment of moderate to severe wrinkles and rhytides for patients with Fitzpatrick Skin Types I, II or III. In late July, the FDA informed the public that “the Renuvion/J-Plasma handpiece can be used under the skin in certain procedures intended to improve the appearance of loose skin.” According to the statement, “the FDA **cleared** the Renuvion APR Handpiece for use in subcutaneous dermatological and aesthetic procedures to improve the appearance of lax (loose) skin in the neck and submental (under the chin) region. It is important to note that use of the Renuvion APR Handpiece has not been cleared or approved for use in any other aesthetic skin procedure, or in combination with liposuction.”

“The extreme heat can make plasma rejuvenation a dangerous treatment if performed by an unqualified provider,” says Dr. Shamban. “You have to be very careful because it is such a hot form of energy—you can really burn a hole in the skin if you don’t know what you’re doing.” It’s for this reason that Drs. Lieberman and Parikh don’t include plasma resurfacing in their aesthetic portfolio. “While several doctors have found efficacy with these treatments, we perform a high volume of radiofrequency microneedling and other skinresurfacing procedures—both deep and superficial—and for us, these modalities have a big impact in terms of results, but also a very low risk profile.”

A new plasma technology that is clinically proven for acne, Plason is a professionally administered treatment that releases ions and plasma radicals onto the skin, which attach to and break down bacteria, producing a sterilizing effect. “Most people—it can be used on all skin types—start to see results after one to two treatments, which only take five minutes,” says UK-based dermatologist Dr. Beatriz Molina. “It’s not painful and there are no side effects or downtime. In the clinical study, patients saw a 27-percent improvement in acne and a 25-percent reduction in sebum oil after six weeks.”