

Princess Derma microdermabrasion system:

A microdermabrasion system designed for home use, featuring crystal-free technology and negative pressure suction.

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Introduction

The benefits of microdermabrasion have been well-established since its introduction in 1985. Microdermabrasion improves skin health and appearance through mechanical abrasion of the outer layers of skin, combined with a negative pressure vacuum that stimulates collagen production within the dermis. The result is improved elasticity, texture, and reduction of fine lines and wrinkles. Microdermabrasion also reduces pigment irregularity common in conditions such as melasma and photo-aging. It has shown improvement in acne and reduces the appearance of chronic scarring and hyperpigmentation.

An increasing number of consumers are choosing at-home beauty treatments. Generally, these “at-home” alternatives offer less effective treatments as compared to the professional counterpart. This has been true with home microdermabrasion systems that focus on exfoliation and neglect the powerful benefits of suction. Without the negative pressure vacuum, the system merely “sands” and “polishes” then skin, and fails to stimulate collagen; this collagen stimulation is responsible for the long-term benefits of microdermabrasion.

The Princess Derma home microdermabrasion system (Viora, Jersey City, NJ) offers two important components previously unavailable in a home microdermabrasion system: crystal-free abrasion and powerful negative pressure vacuum. The system has the added advantage of safety, ease of use, and portability.

Princess Derma

The Princess Derma utilizes a crystal-free system for exfoliation. Real diamonds are embedded within an interchangeable treatment tip to provide abrasion and exfoliation. The system does not use crystals or abrasive creams, thereby increasing ease of use and consumer safety by eliminated the potential for ingestion, inhalation, and eye injury.

The unit also features a high power, silent negative pressure vacuum. This suction is adjustable to accommodate variation in body area, skin type, and skin sensitivity. The negative pressure encourages collagen organization and collagen production within the dermis. This thickened dermis reduces the appearance of lines and wrinkles, and improves skin tone and elasticity.

Methods and Materials

15 patients utilized the Princess Derma home microdermabrasion system twice weekly for 12 weeks. During this time period, they were instructed to continue with their usual skin regimen. However, those who have also been receiving prior microdermabrasion were instructed not to undergo professional microdermabrasion during this time period. They were instructed on the proper use and technique of the unit. All patients began with the finest treatment tip for the first 4 treatments and then changed to the coarser tip. Areas treated included the face, neck, and hands. The specific skin conditions included fine lines and wrinkles, pigment irregularity, acne scars, and an overall “dull” skin appearance. Patients underwent periodic photographic documentation and completed offered ongoing feedback about his or her satisfaction.

Results

All 15 patients reported high satisfaction with the Princess Derma, as it pertained to the ease of use and overall results. Six patients who had experience with prior microdermabrasion reported results similar to what they experienced after professional microdermabrasion.

Common side effects included skin redness. This redness was transient and usually subsided within several minutes to an hour after treatment. After subsequent treatments, the redness was less significant, and persisted for a shorter period of time. Some patients reported dryness and flaking after the initial treatments. This was more common in those who had never received prior microdermabrasion or had a daily skin care regimen that lacked adequate exfoliation. This was mild and self-limiting, and no further flaking and dryness occurred after the fourth treatment. These symptoms likely resulted from the stimulation of exfoliation and represented a sign of treatment efficacy, rather than a side effect. One patient ceased using the system because of frequent traveling and scheduling difficulties, and not because of inadequate results or problems with the system.

Photographic analysis revealed that the most significant improvement was seen in those patients with fine lines and wrinkles, and “dull-appearing” skin; the skin appeared smoother and brighter after the treatment period. There was also improvement in those patients complaining of pigment irregularity and acne; there was more regularity in skin color, reduction in the appearance of dark spots, and reduction in the number and severity of acne lesions. (Figures 1-5)

The least significant photographic improvement was seen in those suffering from long-standing acne scarring, although there was photographic improvement and patient satisfaction was extremely high. This likely indicates that longer and more aggressive treatment may be necessary for these longstanding scars. (Figure 6)

All patients reported a subjective improvement after two treatment sessions; they reported that their skin was smoother, brighter, and with less visible pores. Photographic improvement in the appearance of the skin became most obvious at 3 weeks, with continued improvement through the twelve week period. As expected, the improvement at twelve weeks was greater in all patients as compared to six weeks.

Conclusion

The Princess Derma home microdermabrasion system represents an effective system for home use. It incorporates the most important components of the highly regarded professional systems: crystal-free exfoliation and powerful negative pressure vacuum. Other systems focus only on exfoliation, thereby neglecting the powerful physiologic effect of negative pressure, and resulting in significant irritation.

The Princess Derma has the added benefits of being safe, easy to use, portable, quiet, and effective for a variety of skin conditions. It represents a good adjuvant for professional microdermabrasion. Regular microdermabrasion also increases the efficacy of topical creams and medicines.



Fig. 1 – Results after twelve weeks of Princess Derma treatments. Notice improvement in skin texture, and reduction in fine lines, and wrinkles.



Fig. 2 – Reduction in the lines around the eye after twelve weeks of Princess Derma

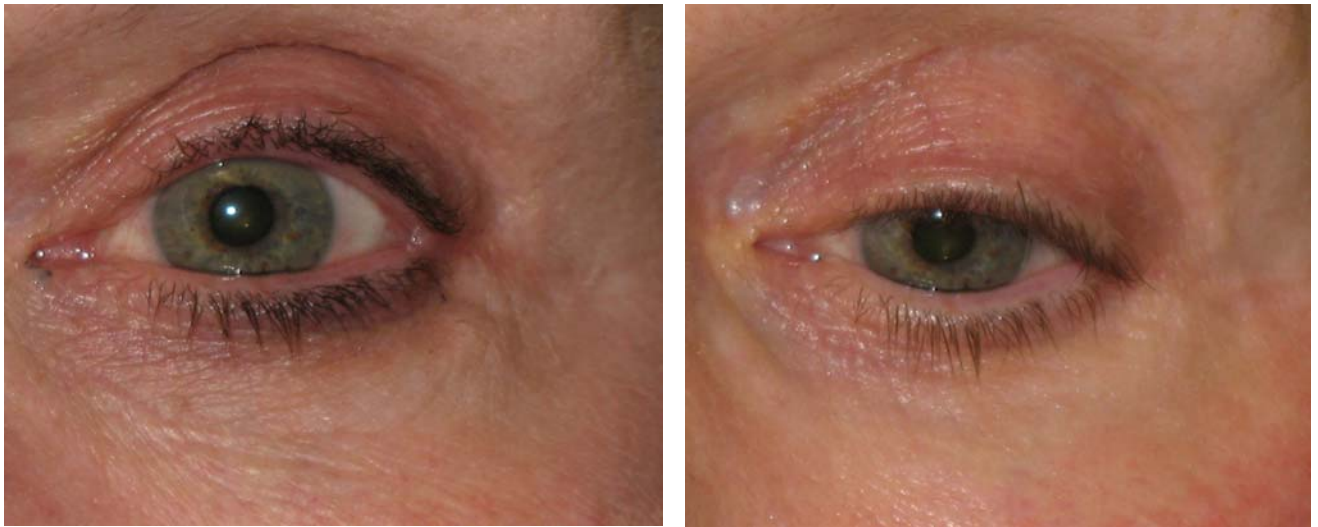


Fig. 3 – Significant reduction in the fine lines beneath the eyes, after twelve weeks of Princess Derma



Fig. 4 – The use of Princess Derma for twelve weeks resulted in a visible reduction in pigment irregularity.



Fig. 5 – Reduction in the appearance of fine lines around the mouth, after twelve weeks of Princess Derma.



Fig.6 – Twelve weeks of Princess Derma resulted in reduced appearance of acne scarring of the cheeks.