

The Use of Crystal-Free Microdermabrasion for Skin-Rejuvenation

Thomas Eckhart, MD - British Institute of Dermatology, Edinburgh, U.K.



The DiamondSkin's coarse and extra-coarse wand penetrates deeper into the hyperactive sebaceous glands and slows down their metabolism to prevent future acne from forming. * (The second photo is after 3 successive bi-weekly treatments.)

Background - The most obvious manifestations of aging are pigmented lesions and visible facial vessels. Rosacea, telangiectasias, spider nevi and numerous other ectasias are all visible signs of aging and sun damage. In addition, solar lentigines, seborrheic keratoses and actinic keratoses are obvious signs of aging skin. Due to chronological and photo-aging, pore size increases and skin texture becomes more rough and uneven. Skin laxity and loss of elasticity also contribute to the aging process by resulting in mild wrinkling of the facial and neck skin.

Treatments focused specifically on addressing these common problems have recently been labeled as skin rejuvenation. Elimination or resolution of the above conditions provides the patient with the most immediate and satisfying change in their appearance. The resolution of deep wrinkles by microdermabrasion techniques is minimal. Some patients clearly attain excellent if not remarkable results. However, most deep wrinkles are not removed through non-ablative methods. If the patient's expectations are properly qualified and the expected outcome is explained, the overwhelming majority of patients will be pleased with the results. Studies conducted to date on the skin rejuvenation therapy of the DiamondSkin System are still preliminary and expanding. Additional studies are ongoing, but this new technique presents a relatively simple, fast and effective skin rejuvenation treatment with minimal discomfort and no down time.

Pigmented & Vascular Lesions - The DiamondSkin provides for excellent results in both pigmented lesions and vascular lesions. Solar lentigines, seborrheic keratoses, and other benign epidermal pigmented lesions can be treated successfully. If a clinically obvious pigmented lesion is present on the face, usually the DiamondSkin will be able to reduce the lesion by 25% to 35%.

The DiamondSkin is therefore the microdermabrasion device of choice for "visible" benign pigmented lesions on the face. However, IPL and Laser systems are more effective in more difficult cases. In addition to treating pigmented lesions, almost all surface vascular anomalies (telangiectasias, spider nevi, rosacea, port wine stains, etc.) can be successfully treated with several sessions with the DiamondSkin. The abraded dermis releases mediators and stimulates fibroblast activity, which induces the formation of collagen. Increased collagen production ultimately fills in very mild wrinkles in the face and neck and smoothes the skin, reducing pore size and improving skin texture. The patient should be informed that the procedure will not lead to the disappearance of deep wrinkles. As discussed above, none of the non-ablative skin rejuvenation systems are able to consistently remove deep wrinkles. The effect of the DiamondSkin is a mild skin smoothing, an improvement of skin texture, and a reduction in the depth of mild wrinkles.

Summary - The advantage of the DiamondSkin crystal-free microdermabrasion treatment using natural Diamond-tipped wands is that it is able to effectively remove surface pigmented and vascular lesions while stimulating additional collagen formation to smooth out the skin, improve skin texture, reduce pore size and decrease the depth of mild facial wrinkles.