



# Using Technology to Detect Skin Cancer, Profile Lesions, and Streamline Your Practice

Technology solutions may help dermatologists turn the tide on the skin cancer epidemic.

**BY JULIE KAREN, MD**

**>>** The effective delivery of excellent, comprehensive care is the gold standard for which all dermatology practices strive. With the continuous introduction of new technologies, it is paramount that dermatologists reevaluate their offerings and find new ways to improve. Advancements in skin cancer detection, telehealth options, and storing patient data have helped make our practice more efficient and operate more smoothly, which was especially important when navigating the challenges of running a dermatology office during the pandemic. The technologies detailed in this article will help your practice treat patients more effectively, facilitating well-rounded, customized care.

### **SMART STICKER FOR EARLY, ACCURATE MELANOMA DETECTION**

The DermTech Melanoma Test is a non-invasive test that allows dermatologists to sample genomic material from an entire lesion using adhesive patches, improving early melanoma detection. This Smart Sticker™ technology painlessly collects RNA and DNA for genomic analysis. A positive test result indicates that the lesion contains one or more biomarkers associated with melanoma and should be removed via biopsy. Identifying these lesions at the earliest possible stage, oftentimes before the classic clinical features of melanoma are apparent, can help practitioners perform biopsies at the right stage and potentially save lives through early detection. As a lesion evolves into melanoma, there are sub-clinical changes in gene expression that may precede the clinical manifestations of the disease. The DermTech Melanoma Test can detect genetically abnormal lesions, affording earlier detec-

tion of melanoma. We still use the naked eye to perform a full body clinical examination and evaluate for lesions that appear clinically (or dermoscopically, see below) atypical. The DermTech Melanoma Test is then employed to non-invasively and accurately delineate the nature of the lesion. The DermTech Melanoma Test efficiently reduces unnecessary biopsies by providing objective and actionable genomic information, allowing the clinician to hone in on potentially malignant lesions.

### **TELEHEALTH VIDEO OFFERS EXCEPTIONAL CARE AT HOME**

One of the greatest barriers to telehealth in dermatology is the possibility of a delayed melanoma diagnosis; once invasive, a malignant lesion may metastasize in as little as a few weeks to months. Low-resolution video calls and image capture can be unreliable, and depending on the anatomic location, patients may have difficulty capturing quality images of the lesion(s) in question. While virtual visits are convenient to the patient, dermatologists cannot rely on

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## thebottomline



# Derm 5.0: Tech Innovations

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these methods alone in their assessment of pigmented lesions. Practitioners want to catch malignant lesions as early as possible; therefore, employing technology such as the DermTech Melanoma Test to aid in remote sampling of pigmented lesions via telemedicine is invaluable. When a concerning lesion is identified, a DermTech Adhesive Skin Collection kit is sent directly to the patient’s home. A member of our clinical staff then counsels the patient and guides him/her through the collection process via video call. The collection kits are sent to DermTech’s Gene Lab, and results of the test are typically reported within one week. If a test result is positive, an in-person visit is quickly arranged for further inspection and a biopsy. During the pandemic, the use of DermTech Melanoma Test via telemedicine not only assisted in the rapid and accurate identification of lesions in need of prompt biopsy, but also allowed certain individuals, such as those who were immunosuppressed or living in rural or underserved areas, to obtain care regardless of difficulties associated with scheduling in-office visits.

## **DERMOSCOPY MAGNIFIES AND IDENTIFIES ATYPICAL LESIONS**

Dermoscopy or epiluminescence microscopy is a non-invasive method that allows for detailed inspection of skin lesions without interference from skin surface reflections. Experience with a dermatoscope is essential for all practitioners who routinely examine pigmented lesions. The identification of certain patterns, structures, or features within a lesion can help to determine whether a lesion is benign or malignant. Through magnification and in some instances toggling between polarized and non-polarized light, dermatoscopes provide invaluable details about cutaneous lesions. Specifically, polarized dermoscopy is more sensitive to amelanotic melanomas and basal cell carcinomas, as it highlights blood vessels, vascular blush, and white shiny lines within lesions. When treating patients who have a plethora of moles on their skin, we’ve found it helpful to

identify a patient’s signature lesion allowing for more accurate identification of outliers. With sequential photography and dermoscopy, practitioners can detect changing or outlier lesions that require further evaluation. If a mole is suspicious for melanoma, practitioners can perform a biopsy or order a non-invasive test to confirm genetic markers prior to performing a biopsy.

## **DIGITAL RECORDS ENHANCE PATIENT CARE**

Dermatology is a highly visual field, and we rely on photography daily to track patients’ progression and maintain detailed records. Electronic medical records (EMRs) are invaluable to this process, as we can attach images to patients’ files and effectively communicate with patients online. Patients are able to share images of lesions that can be uploaded to their charts, creating a streamlined process for providing the highest possible level of patient care. With EMRs, we can quickly and correctly pinpoint which lesion requires treatment, eliminating a major source of medical error (treating the wrong spot due to false memory or miscommunication). Electronic medical systems became even more important when our offices were operating remotely, as we did not need to be in the office to access and update a patient’s chart. Quick and secure access to our patients’ charts is a vital part of an efficient office that can serve our patients’ needs in an increasingly digital world.

## **BE ON THE LOOKOUT**

Finding new technologies—diagnostic or logistical—to enhance your operations is critical to maintaining a successful practice. Using the latest tools and techniques to create positive results not only provides comprehensive care to your patients, who increasingly expect top-quality care from their practitioners, but also demonstrates that your practice is on the pulse of the dermatology field. ■

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Differences between polarized and non polarized dermoscopy. (2020, February 2). dermoscopedia. Retrieved 16:40, June 25, 2021 from [https://dermoscopedia.org/w/index.php?title=Differences\\_between\\_polarized\\_and\\_non\\_polarized\\_dermoscopy&oldid=17037](https://dermoscopedia.org/w/index.php?title=Differences_between_polarized_and_non_polarized_dermoscopy&oldid=17037).