# he Encyclopedia of Aesthetics February 2010 **Sun Care Skin Cancer**

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# **Contents**

February 2010 - Sun Care / Skin Cancer



## **Feature**

#### 84 Spot On

Howard Murad, M.D.; Peter T. Pugliese, M.D., and Michelle D'Allaird will provide you with an in-depth look at melanin in this article. When you are finished reading you should have a firm of understanding of its function, the skin disorders that are triggered when it isn't functioning properly, and the aesthetician's role in assisting clients who are plagued with these disorders.











### **Articles**

#### 58 Sun Damage Repair

by Louis Silberman

What most people do not know is that UV rays during the winter are much harsher than those in the summer. After months of unprotected exposure, consumers often begin showing the visible signs of sun damage, such as darkened freckles and age spots.

#### 68 Understanding Sun Protection

by Lynda Valdez

We are all visual people, especially when it comes to our appearance and how our skin looks. Even though recent studies show that the number of diagnosed skin cancer cases each year continues to increase, a lot of people think first about the outside cosmetic effects of tanning and sun exposure.

#### 76 Sun Protection That Considers Your Overall Health

by Anne C. Willis

This article offers a fresh perspective on detection, prevention, and a responsible approach to protect the skin from injury and premature aging, while considering the effects on the whole body and establishing a platform for further investigation.

#### 98 The Biology of Photodamage

by Benjamin Fuchs, R.Ph.

Beginning with biochemical changes and ultimately showing up as clinically visible manifestations from sunburn to photoaging to cancer, comprehension of the mechanisms and the associated preventive and protective measure that can be taken to mitigate photodamage must be an important part of a modern aesthetician's overall understanding of skin health.

#### 106 Caring for the Skin Cancer Patient

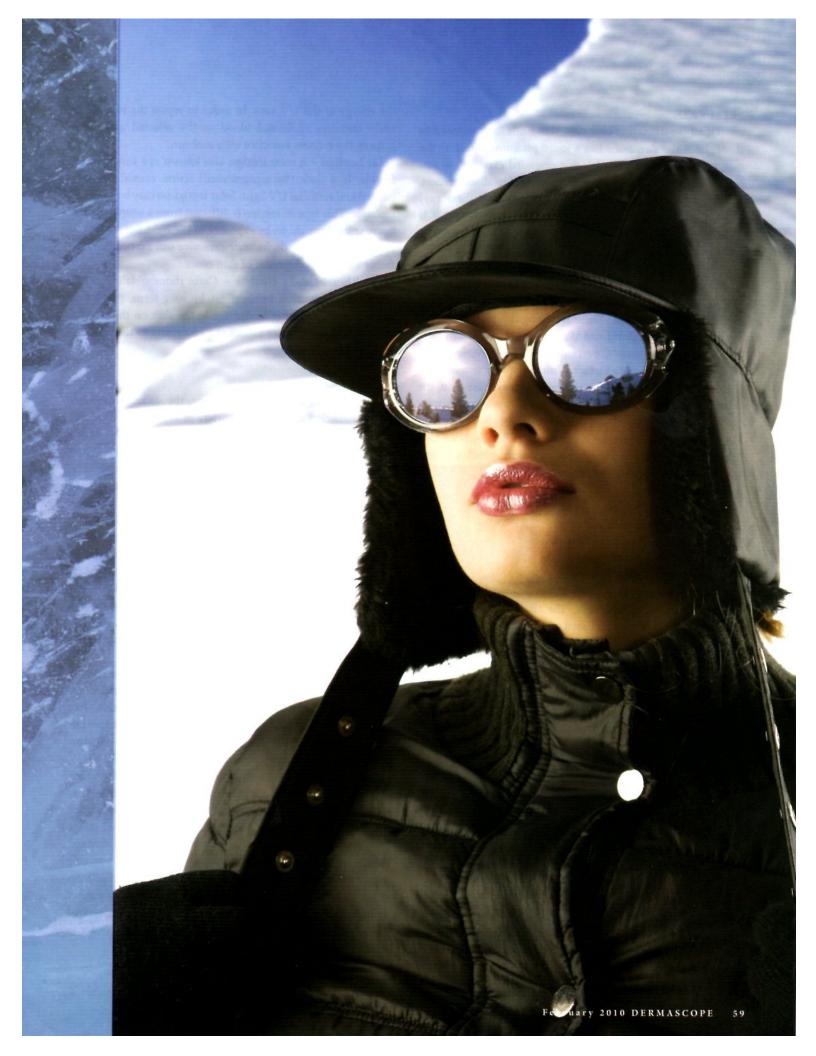
by Jennifer Linder, M.D.

According to the Centers for Disease Control (CDC), skin cancer is the most common type of cancer in the U.S. with more than one million new cases diagnosed last year. The National Cancer Institute estimates that in 2009, approximately 69,000 people were diagnosed, and 8,650 died of melanoma, the deadliest form of skin cancer.



# Sun Danage Repair by Louis Silberman

s Jack Frost nips at our noses, it is a common tradition for families to escape to higher elevations for vacations in the snowy landscape. Unfortunately, with temperatures dropping and swimsuit weather long gone, it is easy to forget about the dangers of sun exposure and importance of wearing sunscreen. What most people do not know is that UV rays during the winter are much harsher than those in the summer. After months of unprotected exposure, consumers often begin showing the visible signs of sun damage, such as darkened freckles and age spots. This creates the perfect time of year to highlight services that rejuvenate and repair the skin.



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As technology progressed, aesthetic professionals switched from using actual film and are now using digital cameras to detect and predict UV damage to the skin. The newest technology instantly shows exactly where hidden sun damage and inflammation is located so that it can be aesthetically treated more effectively.



#### Treatments

Microdermabrasion – For clients with minor sun damage and a desire for a brighter complexion, microdermabrasion is a popular method to achieve these goals. Using a spinning hand tool, aluminum oxide micro crystals are ground against the skin. This non-invasive treatment is used to exfoliate the top layers of the skin. Redness may occur after the procedure but has no downtime, allowing clients to return to their normal routine. As an alternative, microdermabrasion technology has developed into a more advanced, a less abrasive modality. This method exfoliates the skin using a vacuum-type device with a bristled tip to remove dead skin cells instead of using crystals. This procedure does not cause discomfort or skin laceration. Microdermabrasion is appropriate for both light and dark skin colors.

IPL Photofacial – This treatment is recommended for reducing the appearance of skin redness. IPL, which stands for intense pulsed light, uses the heat of a scattered beam of intense light to produce results. Using a special hand piece, a series of light pulses are projected into the skin. The light produced by the IPL treatment is attracted to the discolored skin cells, such as age spots, damaging them and triggering the skin's healing process to produce natural collagen. Patients report a "rubber band snap" sensation when the pulse of light is delivered into the skin. For people with more sensitive skin, topical anesthesia can be provided and a cool compress can also be applied after a treatment. Skin redness and minor swelling may occur in the treatment area, so patients are not recommended to receive an IPL photofacial before a special event.

Fractional Laser Skin Resurfacing - This procedure uses laser beam technology to reduce the appearance of wrinkles

Circle Reply No. 260

lines caused by sun damage. Nonablative fractional lasers are used in this process in order to improve the skin's texture and lighten dark pigmentation. Fractional technology breaks down a traditional laser beam into thousands of microbeams to form deep and narrow columns of coagulation that penetrate into the epidermis and dermis layers. The microbeams only target a small percentage of skin in the treatment area, leaving the surrounding tissue unharmed. The skin cells surrounding the coagulated tissue then begins the healing process, producing healthy new tissue and collagen.

Medical Aesthetics Training – Dealing with advanced lasers, tools, and peels may sound intimidating, but learning how to perform them is a lot easier than one might imagine. Contrary to popular belief, aesthetic professionals are not required to

have a medical background to perform laser treatments or chemical peels. Training rules and regulations are different in each state.

When looking into prospective medical aesthetic schools, it is vital to do research to ensure you will receive the best education possible. Here are a few tips to keep in mind:

- If there are specific types of treatments you want to learn, make sure your prospective school offers courses covering these treatments. Not all programs are the same.
- It is also good to find out how many instructors a school has. Learning from a variety of instructors can be beneficial for your education. It will give you the opportunity to learn from people with expertise in different areas and exposes you to a broad collection of industry perspectives.
- 3. If laser is your specific area of interest, look into what types of equipment the school uses. There are many manufacturers and laser platforms on the market. Learning on a variety of machines will better prepare you for the workplace and make you more versatile in your treatment skills.
- Having the ability to work with actual clients is going to prepare you for real-life situations, so ask how many hours of hands-on clinical practice are included in a school's program.



5. When entering the real world after graduation, it is also vital to know how to market yourself and your business. Finding a school that offers courses with an emphasis on business development and marketing will give you the confidence and skills to become truly successful.

#### Prevention Check List

Sun exposure and the resulting damagearenotonlyaestheticconcerns, but health risks as well. Fortunately, there are many ways to prevent irreparable harm before it starts. Here is a quick list of tips to educate your clients and help keep their skin looking great.

1. For outdoor activities, apply at least two tablespoons of sunscreen to all exposed areas. Wait at least 30 minutes before going outside to allow for proper absorption into the skin. Reapply sunscreen every two hours,

or immediately after swimming or increased sweating occurs.

- Avoid extended sun exposure between 10 a.m and 4 p.m. This is when harmful UVB rays are at their strongest.
- Apply sunscreen with SPF 15 or higher to the face every day. Many specialized moisturizers now include this and avoid the greasy feel of typical sunscreens.
- 4. Avoid outdoor tanning and tanning beds. Tans may look good now, but clients will pay for it later with wrinkles and premature aging. Sunless tanner products have advanced greatly in recent years, offering a safe bronze glow without turning the skin orange.



Louis "The Laser Guy" Silberman is president of National Laser Institute, a leading school specializing in advanced cosmetic laser training for aesthetic professionals. As an expert in laser aesthetics education, Silberman has been a driving force behind creating the most advanced laser training

programs in the country. To learn more about laser sun damage repair or becoming a cosmetic laser technician visit www. nlionline.com or call 877-982-5389.

