As a medical student assisting with a research study, I spent a few weeks in the waiting rooms of some tanning salons, surveying patrons about their tanning habits and why they liked to tan.

Years later, I think of that experience whenever my patients ask how much sun exposure is healthy. I am not surprised that it could be confusing and hard to find accurate answers outside the doctor’s office, especially when faced with advertising and claims in the media sponsored by the indoor tanning industry, which in the United States alone is a 5 billion dollar a year industry.

The truth is there is no such thing as a “healthy tan.”

Dr. David Fisher, Chairman of the MGH Department of Dermatology, and his research team have shown that tanning is a protective response in the skin that is turned on when a person’s DNA is being damaged by ultraviolet (UV) radiation, and having a tan is a sign that DNA in skin cells has already been damaged. The body has systems in place that can repair DNA damage to a certain extent. However, when skin is continually exposed to UV radiation, the DNA of skin cells eventually accrues enough damage that pre-cancers and skin cancers are then formed. It is for this reason that the FDA, the American Cancer Society, the World Health Organization (WHO), and the International Agency for Research on Cancer (IARC) have all classified UV radiation as a known cause of cancer in humans.

According to the American Academy of Dermatology, the risk of melanoma, the deadliest type of skin cancer, increases by 75% for those who have been exposed to UV radiation from a tanning bed. The risk increases with each use. Last year the FDA proposed to require that tanning beds display a warning label designed to warn young people about their dangers.

Bad for the skin, good for the soul?

In recent years scientific evidence has also been found that tanning can improve a person’s mood and even become addictive. Dr. Fisher’s research team has also shown that the tanning process in the skin releases a type of endorphin, signaling molecules in the body that also rise when people exercise, listen to music or eat chocolate. These molecules bind to nerves in the skin and the brain and have the effect of relieving pain and promoting a sensation of happiness and wellbeing.

This could explain why many people who frequently tan have replied in research studies in the same way as on the news by the infamous “tanning mom” who repeatedly sunburned her skin in tanning salons – that they “need to do it” in order “to feel good.”

Why would something that is bad for a person feel good?

One theory is that at an earlier stage in human civilization, when a well-balanced diet was not available for many people, sun-seeking behavior helped people ensure that they got enough vitamin D, which can be obtained from sun exposure and is necessary for the normal growth and development of bones among other processes in the body. Nowadays, a person
does not need to risk skin cancer in order to get Vitamin D, as one can get vitamin D from various dietary sources including: fish, eggs, dairy products, fortified cereals, and Vitamin D supplements [600 – 800 International Units per day for adults and 400 IU/day for children is recommended by the National Institutes of Health]. Given that the ability of the skin of different individuals to produce Vitamin D is highly variable and also greatly affected by their location in the world (i.e. their distance from the Equator), dietary sources of Vitamin D are also more reliable.

So where do we find the balance?
Outdoor sports and physical activity are wonderful for a person’s health and wellbeing, and I encourage my patients who go outside to run and swim and enjoy nature – I just want them to remember that there is a way to keep their skin healthy while doing it.

• Choose a sunscreen that is SPF 30 or higher with Broad Spectrum UVA, UVB protection.
• SPF 50 or higher is better for fairer skin types or for intense sun exposure for example the beach or high altitudes.
• Seek shade or stay indoors between 10 am-4 pm when UV exposure is the most intense.
• Wear sun protective hats and clothing that contain UPF (Ultraviolet Protection Factor). UPF hats and clothing are available in many stores and online.

In terms of sunscreen, there are two main categories: physical vs. chemical types. For those with sensitive skin, a physical sunscreen (containing zinc or titanium as active ingredients) may be preferable to products with chemical sunscreens as the active ingredients, as physical types of sunscreen are less likely to cause allergies and are also more effective.

So as we welcome warmer weather, your dermatologists here at Mass General are wishing you a very happy healthy summer holiday and we hope as you enjoy the outdoors, the Cape and a little more sunshine, that you will also remember your hat, sunglasses, sunscreen and most importantly, moderation.

— THE TRUTH BEHIND THE TAN

(Continued from page 1)

Some infants are born with a condition where there is a localized absence of skin, manifesting as open wounds particularly of the scalp skin. This condition is called aplasia cutis congenita. These open wounds can vary in shape and size. They usually heal with the formation of a scar, often resulting in a bald spot at the affected area. While aplasia cutis congenita most commonly occurs without other abnormalities, in rare cases it can be associated with other malformation syndromes.

Usually aplasia cutis congenita occurs without a known family history of this condition, but in some cases it can be inherited from an affected parent.

While these congenital (present at birth) wounds are rare, identifying the gene mutations that cause them is important for the understanding of how normal skin formation occurs.

Alexander G. Marneros, MD,PhD, Attending Dermatologist and a principal investigator at Mass General’s Cutaneous Biology Research Center, has now identified in his laboratory new gene mutations that cause the inherited form of aplasia cutis congenita. Intriguingly, although these gene mutations are present in all cells of an affected child, only certain areas of the body were affected. The identified gene mutations reduced the ability of skin cells to grow and to form a normal skin layer.

These newly identified genes had previously not been recognized to play a role in skin formation. According to Dr. Marneros, “Insights from such studies may provide new treatment options not only for these congenital skin disorders, but also for acquired wounds in adult patients.”

Alexander G. Marneros, MD, PhD, is also an Assistant Professor at Harvard Medical School. For more information visit: http://www.massgeneral.org/cbrc/research/researchlab.aspx?id=1076
How to Support This Department
We wish to thank those who have generously supported our research efforts in the past, which has meant improved health and better quality of life for people in the Boston area and around the world. If you’d like to learn more about our research efforts and how you can help, please contact Katherine Liscomb at kliscomb@Partners.org or call 617-643-5778.

An Experts Guide to Men’s Skin Care

FOR MEN ONLY: SEEKING A YOUTHFUL, HEALTHY LOOK?
AN INTERVIEW WITH EXPERT LASER AND COSMETIC DERMATOLOGIST, MATHEW AVRAM, MD:
NEW ATTITUDES AND GROWING TRENDS IN MENS SKIN CARE.

Is men’s skin different from a women’s skin?
Men’s skin is different from women’s skin, both in structure and function, and, therefore requires specialized knowledge and tailored treatment approaches.

What mistakes do men make in regard to skin care?
Basically, many men neglect their skin. If men want their skin to look youthful and healthy, they’ve got to make skin care part of their daily routine. Sun and smoking are the chief culprits that lead to skin damage. Smoking cessation is an obvious solution. In terms of sun exposure, many men do not wear sunscreens, thus leading to increased sun-damaged skin. A moisturizer that contains a sunscreen can provide preventative protection against skin cancers, aging, and wrinkling and can be easily incorporated into a daily skin care regimen.

What do you recommend for controlling acne?
Daily use of a benzoyl peroxide wash or gel can help. However, you may want to see a dermatologist to evaluate whether a prescription retinoid or other medication would be beneficial. If you are concerned about acne scars, there are safe and effective laser treatments that require little to no downtime. Many laser technologies were developed here at Mass General Dermatology, in association with the Wellman Center for Photomedicine, including fractional laser skin resurfacing, laser tattoo removal, laser hair removal and CoolSculpting®, which are now used around the world.

Are more men seeking cosmetic dermatology and why?
According to Dr. Avram, “Yes, there is a growing trend nationally as well as in our practice.” Today the viewpoint has shifted. Increasingly men are concerned about their appearance. Now that there are non-invasive treatments with little to no downtime, men are seeking treatments to give them a healthy, refreshed look. Many men believe that in our current youth-oriented culture looking good gives a competitive advantage in today’s job market. When they look good, they feel more confident.

What types of cosmetic procedures are men seeking?
“The men who come to our practice have specific goals in mind, they want to look as good as they feel, but they don’t want to look artificial,” says Dr. Avram. Our non-invasive and minimally invasive treatments fit well into this desire. After a consultation, a tailored treatment is selected. For facial lines, men are choosing Botox® and dermal fillers. If they want to reduce acne scars or have a smoother, refreshed look, many choose laser skin resurfacing such as Fraxel®. For those who want to reduce love handles or just reduce stubborn fat, CoolSculpting®, is a popular choice. If tattoos are preventing men from getting jobs or gaining a promotion, they are opting for laser tattoo removal. Finally, laser hair removal, is popular particularly for the removal of excess back hair.

All of the services above are safe and effective treatments that are provided by our 8 board-certified dermatologists with extensive laser and cosmetic training. Our clinic has more than 20 lasers on-site, which allows us to treat virtually any skin condition in any skin type in a manner specifically tailored for the patient’s individual skin issues. Please note that medical insurance does not cover the costs of cosmetic treatments.

How can men protect their skin when shaving?
Here are a few helpful tips:
1. Shave in a warm shower or put a hot towel over your face prior to shaving.
2. Massage shaving creams or gels into the skin.
3. Don’t shave too close against the skin and use a single edge blade to protect your skin from irritation. This helps to reduce ingrown hairs.
4. Shave in the direction of your hair growth – not against the grain.
5. Use plenty of water when shaving; pat gently with a towel, do not rub.
EXPERT ADVICE: SKIN CANCER TREATMENTS

NEWLY DIAGNOSED WITH SKIN CANCER? OVERCOMING THE FEAR.

HEARING THE WORDS “YOU’VE GOT SKIN CANCER” CAN BE A SCARY AND DEVASTATING EXPERIENCE THAT BRINGS DISBELIEF, ANXIETY, AND FEAR. ALTHOUGH MORE THAN 2 MILLION AMERICANS WILL FACE THE DIAGNOSIS OF SKIN CANCER EACH YEAR, EACH PATIENT’S STORY AND THEIR EMOTIONAL JOURNEY ARE UNIQUE.

Dr. Victor Neel, a dermatologic surgeon who has performed more than 18,000 Mohs Micrographic Surgery (Mohs) procedures for the treatment of skin cancers, answers common questions and helps to ease patient’s fears.

What are the most common fears that patients share?

When a patient has been newly diagnosed with skin cancer, the most common questions we hear at our clinic are:

Is my health at risk?
The truth is the cure rate for primary basal cell and squamous cell skin cancer using Mohs micrographic surgery is between 95 and 99 percent depending on tumor type and location.

How long will the surgery take?
Typically, surgery starts early in the morning and is completed the same day, which includes the surgery, pathology, and cosmetic reconstruction.

What am I going to look like afterwards?
The Mohs technique involves removing the cancerous tissue while preserving the healthy surrounding tissue to ensure the smallest wound possible. Smaller wounds heal better.

Dr. Neel has additional fellowship training in repairing wounds from the Mohs procedure. A patient’s skin type, the size of the wounds and the patient’s preference for cosmetic outcome are all factors that Dr. Neel will balance to determine the best way to get excellent healing after the cancer is removed.

What is Mohs Surgery and is it covered by insurance?
Mohs surgery is the most advanced, precise method of removing non-melanoma skin cancers. This is especially important when treating tumors on the eyelids, nose, and lips where incomplete removal and occurrence can be devastating.

Most medical insurances recognize the value and cover the cost of Mohs surgery.

Dr. Neel performs Mohs surgery, pathology, and wound reconstruction during the same office visit. “I am very sensitive about minimizing costs while maximizing outcomes,” says Dr. Neel.

What should the patient expect?
Local anesthesia is administered around the area of the tumor – the patient is awake during the entire procedure. After the area has been numbed, Dr. Neel removes the visible tumor along with a thin layer of surrounding tissue.

This tissue is prepared and put on slides and examined under a microscope by Dr. Neel. If there is evidence of skin cancer at the edges of the sample, another layer of tissue is taken from the area where the cancer was detected. This ensures that only cancerous tissue is removed during the procedure, minimizing the loss of healthy tissue.

Generally, healing takes place over 4-6 weeks. Many patients come back in 6 weeks to evaluate the healing and to ensure they are happy with the overall outcome.

CONTACT US | If you would like to receive a copy of this newsletter, please ask your patient coordinator or e-mail us at MGHSkinNews@partners.org