



What is the main cause of skin cancer?

The sun has many benefits, but the sun has many more negatives than positives. The sun will not make your skin look younger; to the contrary, consistent sun exposure makes skin look prematurely old. Many of the harmful effects of sun are not immediate. Sun exposure or artificial sun exposure (tanning beds) significantly increase the risk of skin cancers that include: basal cell carcinoma, squamous cell carcinoma, and melanoma. Patients are not only at risk right now, but in the future. Many of the harmful effects of over-exposure to sun are not reversible and can be deadly. Certain skin types such as light or pale skin are at higher risk of developing skin cancer. Some patients have genetic traits that almost guarantee a potentially lethal skin cancer with over-exposure. Skin cancers result in deforming scars and in some cases the cancer may be deadly!

Can I really control the sun?

Board certified Dermatologists and Plastic Surgeons routinely give recommendations to patients on skin care and protection. For young patients it might be controlling acne or skin texture. For older patients it is usually about reversing the effects of damaging sun or skin cancer. Sun exposure is one of the few things that every patient with limited resources can control. It is not easy to avoid the sun particularly when you are young and involved in a great deal of outdoor activities. Nevertheless, the fact is the sun exposure and tanning will increase your risk of skin cancer now or in the future. Avoiding the sun involves behavior modifications, mechanical cover, and sun screen. The real success of such programs is dependent on a consistent commitment to avoiding the harmful effects of sun, day in and day out.

Is a little sun dangerous?

Protecting your skin from the sun will reduce the likelihood of skin cancer and wrinkles. There is no such thing as a safe tan. A tan is visual evidence that skin has been damaged. To produce a tan, your pigment cells have to mutate themselves to create a darkening of the skin that they think will protect themselves from further damage. There is no such thing as a safe sunburn. Sunburn means that the rays of the sun have burned your skin. Those people with fair skin, hair light eyes, many freckles, and lots of moles are at an increased risk for melanoma and other skin cancers. A "base tan" offers no protection. There is no evidence that getting a tan will protect your skin in any way. Tanning beds do cause sun damage! The American Cancer Society reports that people under the age of 35 who use tanning beds regularly have a risk of melanoma eight times higher than that of people who never use tanning beds. Even occasional use nearly doubles the risk of developing the disease. And a recent study published in the Journal of the National Cancer Institute indicates that the use of tanning devices may also contribute to the incidence of non-melanoma skin cancers. They cause premature aging too. Sunless tanning solutions do not protect from sunburn.

Does the quality of my skin or my lifestyle increase my risk of skin cancer?

The quality of a person's skin is often related to a number of factors. Many of the factors are out of the control of individuals and include: skin color, skin type, genetics, age, and environmental factors. A patient's skin quality can be positively impacted by lifestyle modifications, skin care, diet, and hormonal manipulation. Everyone eventually has wrinkles. Overexposure to the sun will substantially speed up the wrinkling process. If you want your skin to look better stop smoking (if you smoke). Cigarette smoking is the number one preventable cause of death in the U.S. Smokers have an increased rate of certain skin cancers and skin conditions. Smoking

causes wrinkles too! Minimize sun exposure, especially 10 A.M to 2 P.M. when UVB intensity is highest. Seek shade. Sun bathing, even wearing sunscreen, is still harmful!

How do I prevent over-exposure to sun?

Wear sun-protective clothing when outside; this means a hat with at least a 4 inch circumferential brim, long sleeved shirt, and long pants or skirt. Baseball caps don't protect the ears, back of the neck, or even most of the face. Straw hats are unlined and loosely woven, which allows the sun to go directly through the hat. The fabric must also be sun-protective; a light cotton material does not protect well from the sun. Some lines of clothing are marketed today with an SPF rating. Typical shirt fabrics only offer SPF of 6.5. Weave tightness is the most important factor in sun protection of fabrics followed by the fabric type. Darker color fabrics provide greater protection from UV rays than do lighter color fabrics. It is also important to note that fabrics are significantly less sun protective when wet. Reflective surfaces (snow, water, sand, concrete) increase exposure. Mild cloud cover offers little protection from sunburn. Higher altitude intensifies exposure. Even shade is not complete protection when there is significant reflection from surroundings. Again, SUN SAFETY is not just a summer issue – it is a year-round issue! Keep a bottle of sunscreen (hats, etc.) handy you never know when you might need it! Remember to be prepared for those first football games of the season. I will never forget at an O.U. football game, starting at noon in September, watching all those fair Sooner fans walking out looking like lobsters and in pain. Not me! I had my sunscreen and my hat!

How should I use sunscreen?

If sun exposure is likely, use titanium dioxide- or zinc oxide-based sunscreen. Use sunscreen on all parts of your skin exposed to the sun, including the ears, back, shoulders, and the back of the knees and legs. Apply sunscreen to the face every morning to protect against sun-related aging and discoloration of the skin. It should be a habit, like brushing your teeth. Remember that such changes are not only induced by intense sun exposure, but also by cumulative, mild, brief exposures to the sun. Also apply on neck, ears, hands and arms. It will help prevent “liver spots” which are really sun damage. SUN SAFETY is not just for summer – it is a year round issue. Don't forget to protect your eyes and lips from sunlight. Moles that can degenerate into melanoma can form at the back of the eye. Sunlight can cause cataracts. Lips can get cancerous growths. Lipstick does not contain sunscreen! Apply sunscreen at least 20 minutes before going out, this gives it time to absorb, or setup. This is especially important with chemical sunscreens. An application for the body should be 1 oz. (shot-glass full). An 8 oz. bottle of sunscreen last only 8 applications! Reapply sunscreen every 1-2 hours if in the sun, and reapply after swimming or excessive perspiration. Some medications cause serious sun-sensitivity, as do some diseases, such as lupus erythematosus. It is also possible to become allergic to sunscreen. If you think this applies to you, discuss it with your dermatologist or plastic surgeon. It is always possible to find a sun-protective regimen that works. Remember, infants under 6 months or anyone recovering from light sensitive medications, laser, or surgery should be kept out of the sun.

Can I just reverse the effects of sun later?

Skin quality is often the result of age, skin type, genetics, and the environment. The negative effects of sun exposure or tanning are not reversible in most cases. A variety of treatments available to improve the cosmetic appearance of sun damage skin that include: topical medical treatments, cosmetic skin care, chemicals, dermabrasion, intense pulsed light (IPL), lasers, or surgery. Review Dr. Lowe's “Healthy Skin Guide” or the manufactures materials for further details involving topical skin rejuvenation. Most of these treatments will not significantly decrease the risk of skin cancer. There are a number of topical creams that can be prescribed by your Dermatologist that may decrease your chances of getting certain types of skin cancer. The topical medications are effective at decreasing the long term risk of skin cancer when applied

correctly. These products target pre-cancers or developing cancers, but are associated with some significant risk and down-time. All these treatment modalities may be harmful in patients who fail utilize proper sun protection or have untreated invasive skin cancer. The best policy is to avoid excessive sun exposure or tanning. Limit your exposure of skin surface burning and even chronic low dose exposure and tanning. Burning the skin is bad, but continued chronic tanning can in many cases be worse.

Skin cancers only happen to old people, right?

Skin cancer is not, and never has been only a disease of age. It is true that as patients age they become more susceptible to skin cancer. As a patient ages his skins immune system is unable to fight the negative effects of excess exposure to sun. Most patients develop skin cancer when they get older due to the exposure that occurred when they were younger. Clinical studies have proved that skin cancer is on the rise in every age group but increasingly in younger patients. This increase in skin cancer is multifactorial relating to environmental changes, lifestyle modifications, and sun tanning beds. The populations increase in artificial tanning is also increasing the number of cases of skin cancer more in the young than the old. Patients who start aggressively tanning in their youth are almost guaranteeing a skin cancer while they are still young adults. Check your skin and moles once a month or so. If you do a monthly breast exam, this is a great reminder to check your skin. You can use your partner or a mirror to help you see your back. It is a good idea to get a yearly skin check if you have a lot of sun damage. At risk patients, should when possible do regular self-examinations and physician follow up as instructed for evaluation, treatment, and early detection.

Is skin cancer really cancer?

Yes, skin cancer is cancer. Skin cancers at best require freezing, biopsy, or topical treatment. Most invasive skin cancers require surgical removal or radiation. Skin cancers develop in areas that are most exposed to sun such as the face or extremities. Surgical excisions or radiation even in the best hands will result in a significant deformity or permanent scar. Most patients who are diagnosed with a treatable skin cancer will most likely get another one within the next several years. Therefore, if skin cancer is a real cancer, then what is the best way to prevent it? Best way to prevent lung cancer is to stop smoking. The best way to prevent skin cancer is to wear sun screen, change behavior, self-examination, and routine skin evaluation with a physician.

What are the common forms of skin cancer?

There are four main forms of skin cancer: actinic keratosis (AKs), basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and malignant melanoma. Actinic keratosis is precancerous lesions, scaly or rough spots that do not go away with moisturizer. Actinic keratosis is sun damaged skin that has not fully developed into skin cancer. These areas may be observed or treated topically, but it is a real an indication that a patient will most likely have problems with skin cancer in the future. They are usually found on the face, ears, and occasionally arms. They differ from seborrheic keratosis, which look like “stuck on” spots. Basal cell carcinoma is the most common form of skin cancer and the one that grows the slowest. It most commonly appears as a shiny bump on the head, neck or hands. It occasionally looks like a red, scaly patch. Left untreated, a BCC will bleed, crust over, heal, then repeats this cycle. Thy can cause local destruction if not treated. Squamous cell carcinoma may appear as a bump or a red, scaly patch. It is the second most common type of skin cancer. The most common areas it is found are the ears, face, lips and mouth. Unlike a BCC, if an SCC is left untreated, especially in an organ transplant patient, they can metastasize (spread to other parts of the body). Actinic keratosis can become SCC's if not untreated. Malignant melanoma it is projected that this most deadly form of skin cancer will develop in 44,000 Americans annually and every year about 7,300 will die of melanoma. Melanoma is aggressive and can metastasize. Just like the less aggressive forms of

skin cancer, melanoma can be curable when it is detected at an early stage. If you would like further information ask for a free brochure on “Skin Cancer” put out by the American Academy of Dermatology (AAD) or check out our helpful links at www.drjlowe.com

What is the best way to handle a skin cancer?

Early detection is the key! Melanoma starts in the melanocytes, or pigment producing cells in the skin. It is these cells that cause a “tan”, acting as partial protection against the sun. Melanoma cells usually continue to produce pigment, which accounts for most melanomas appearing as spots that are a mix of tan, brown and black. Occasionally melanomas do not produce pigment and can be white or red. It is normal to have moles, or nevi. It is not normal for our flat moles to change once we are in our late 30’s. Other skin cancers may start is a raised area, non-healing wound, or sore. SEE YOUR DOCTOR IF:

You have a sore that does not heal

A new mole (after the age of 30) or one that is an “ugly duckling”

A mole that persistently itches or bleeds

A mole that has A – asymmetry, B – border irregularity, C – color variations – black, bleeding, more than one color, D – diameter >6mm (bigger than a pencil eraser), E – evolution changes, growth, itch, bleeding, or a new elevated area of an existing mole.

How effective are non-surgical treatments for skin cancer?

Medically prescribed topical skin treatments can be highly effective for certain types of skin cancers. Nevertheless, most invasive skin cancers should be addressed with more aggressive and reliable treatments. Melanoma requires surgical treatment in most cases without exception. Other less aggressive forms of skin cancer or recurrent skin cancer can be treated with external radiation. Radiation treatment requires a lengthy treatment regimen and is associated with some risk. Although radiation is the core cause of skin cancer there are situations when it is clinically indicated. Radiation is indicated in patients who are not surgical candidates or who are unwilling to accept the risks or deformity related to surgery. Radiation has a reported cure rate as high as some surgical procedures, but it can also limit options in the future. It is associated with some morbidity such as: non-healing, ulceration, pain, color change, contour irregularity, and scarring. Your board certified plastic surgeon or dermatologist can assist you with choosing the non-surgical treatment that is right for you.

What is the best surgical option for skin cancer?

There are a number of different surgical options for skin cancer. Certain forms of skin cancer require large surgical resections and reconstructions in the operating room. Other skin cancers can be removed under local anesthetic within several minutes. The surgical options are usually based on the type, size, location, and preferences of the patients. Your physician will usually make recommendations on the surgical procedure that is best for you during consultation. Each patient should weigh the pros and cons of surgery before making a decision. The goal of all surgical procedures for skin cancer is to obtain a cure with the smallest amount of deformity and risks. These procedures can involve: surgical removal alone, surgical removal frozen evaluation, or MOHs procedures. Your board certified plastic surgeon or dermatologist can assist you with choosing the treatment that is right for you.

Are there risks associated with surgery?

All surgery is associated with a limited amount of risk. The risks are often associated with a patient’s medical condition and the clinical diagnosis. Some skin cancers can be removed under local anesthetic or others require general anesthesia with or without hospitalization. The risk of all surgery includes: bleeding, infection, damage to adjacent structures, pains, scar, need for

revision, and anesthetic risks. Many patients diagnosed with skin cancer are elderly or in poor health. The risk of surgery must always be weighed against the pros and cons of doing nothing or choosing another intervention. Dr. Lowe will provide you a copy of a consent form detailing the risk and potential complications of surgery at the time of your consultation. Patients requiring surgery may have to make modifications to medications or obtain medical releases before surgery may be scheduled. Your board certified plastic surgeon or dermatologist can assist you with choosing the treatment that is right for you depending on your clinical situation and the specific form of cancer.

What are my risks for recurrent skin cancer?

The risk of skin cancer recurrence is directly related to the type, size, and location of the skin cancer. Each skin cancer has a risk of recurrence or failure to cure. Many patients presenting for surgical treatment of skin cancer already have metastasis or spread of the cancer to the lymph nodes. The primary goal with any skin cancer is to remove the skin cancer as soon as possible or when indicated. Not all skin cancer should be surgically removed and at times they are best observed. Depending on the surgery that is performed the risk of recurrence for most skin cancers are 2-8%. The risk for recurrence for malignant melanoma is much higher in most situations. Your board certified plastic surgeon or dermatologist understanding what your risk of skin cancer recurrence, metastasis, or new cancer is based on your clinical situation. In certain situations, an oncologist will be consulted to assist patients with follow-up and future screening.

Is a surgical treatment of my skin cancer right for me?

Skin cancer should not be ignored or taken lightly. Skin cancer can be a simple nuisance or a life altering event. In most cases, the best treatment for any skin cancer is obvious. The options for treatment have the most to do with the skin cancer itself. There are a variety of options to treat skin cancer that include: topical skin products, radiation, MOHs procedures, and surgery. There is a financial and personal cost for patients who undergo any form of skin cancer treatment. When surgical treatment is recommended it is usually for good reason. The vast majority of skin cancers can be treated in an office setting. It may take several days or weeks to know if the cancer is cured in some situations. Often the removal of the skin cancer is far less difficult than the reconstruction. Patients on occasion must choose to undergo a more complicated reconstruction that looks better, or a simpler reconstruction that does not look as good. The most important thing is to identify the skin cancer early and choose a treatment that is right for you. No skin cancer treatment or reconstruction is without risk, cost, or trade-offs. Often not treating the skin cancer is associated with significantly more risk than treatment. Patients should carefully weigh the pros and cons of the recommended treatments. Each patient is unique, a consultation with a board certified Plastic Surgeon or Dermatologist can help determine what options best suite your situation and cancer. For further information check our website at www.drjlowe.com

What are Dr. Lowe's take home points?

1. Prevention of excessive sun exposure and skin cancer is the best policy.
2. Most skin cancer is related to sun exposure, skin type, age, and genetics.
3. Certain pre-cancers require aggressive treatment while certain skin cancers can be observed.
4. There are three main types of skin cancer: basal cell, squamous cell, and melanoma
5. Determine what treatment option is best for you after a professional consultation.
6. The best option is usually based on the clinical situation, disease, and patient preference.
7. Understand the risk and potential complications associated with treatment.
8. Be aware of the risk of recurrent disease, local or distant spread, and new skin cancer.
9. Once you have had one skin cancer, you are at higher risk of another.
10. Make a decision about treatment and stick with it. Trust the experts.