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Planning Your Lifestyle

THE GOOD LIFE REPORT:

Skin Cancer

Incidence: Over 500,000 cases a year, the vast majority of which are highly curable basal or squamous cell cancer. They are more common among individuals with lightly pigmented skin, living at latitudes near the equator. The most serious skin cancer is malignant melanoma, which strikes about 27,000 persons each year. The incidence of melanoma is increasing at the rate of 3.4% per year.

Mortality: An estimated 8,200 deaths this year, 6,000 from malignant melanoma, and 2,200 due to other skin cancers.

Warning Signals: Any unusual skin condition, especially a change in the size or color of a mole or other darkly pigmented growth or spot. Scaliness, oozing, bleeding or the appearance of a bump or nodule, the spread of pigment beyond the border, a change in sensation, itchiness, tenderness or pain are all warning signs of melanoma.

Risk Factors: Excessive exposure to the sun; fair complexion; occupational exposure to coal tar, pitch, creosote, arsenic compounds or radium. Among blacks, because of heavy skin pigmentation, skin cancer is negligible. One study has found that severe sunburn in childhood carries with it an excessive risk of melanoma in later life.

Prevention: Avoid the sun between 10 a.m. and 3 p.m. when ultraviolet rays are strongest, and use protective clothing. Use one of a number of sunscreen preparations, especially those containing such ingredients as PABA (para-aminobenzoic acid). They come in varying strengths, ranging from those that permit gradual tanning to those allowing practically no tanning at all. Children, in particular, should be protected from traumatic sunburns.

Early Detection: Early detection is critical. Recognition of changes in or the appearance of new skin growths is the best way to find early skin cancer. Basal and squamous cell skin cancers often take the form of a pale, wax-like, pearly nodule, or a red scaly, sharply outlined patch. A sudden or continuous change in a mole's appearance should be checked by a physician. Melanomas often start as small, mole-like growths that increase in size, change color, become ulcerated and bleed easily from a slight injury. There is a simple **ABCD** rule that will help individuals remember the warning signs of melanoma: **A is for asymmetry.** One half of the mole does not match the other half. **B is for border irregularity.** The edges are ragged, notched or blurred. **C is for color.** The pigmentation is not uniform. **D is for diameter greater than 6 millimeters.** Any sudden or continuing increase in size should be of special concern.

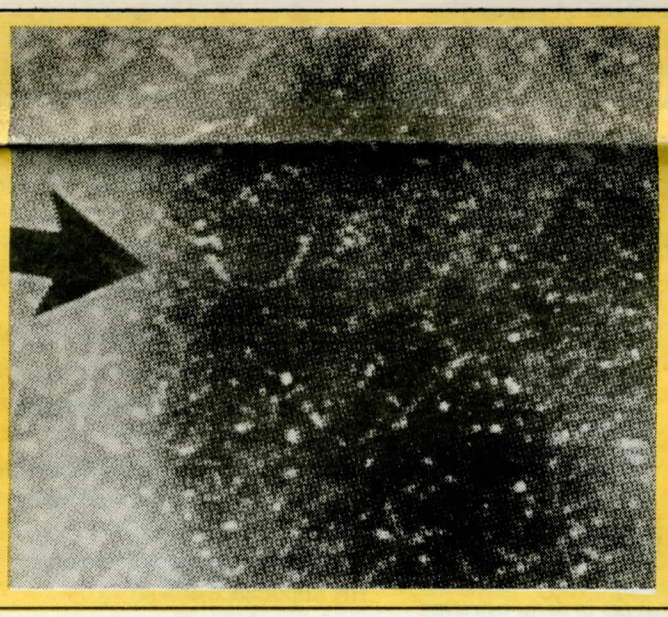
Adults should practice skin self-examination once a month.

Treatment: There are four methods of treatment: surgery (used in 90% of cases), radiation therapy, electrodesiccation (tissue destruction by heat), or cryosurgery (tissue destruction by freezing) for early skin cancer.

For malignant melanoma, adequate surgical excision of the primary growth is indicated. Nearby lymph nodes may be removed. The microscopic examination of all suspicious moles is essential. Advanced cases of melanoma are treated on an individual basis.

Survival: For basal cell and squamous cell cancers, cure is highly likely with early detection and treatment. Malignant melanoma can spread to other parts of the body quickly. However, when detected in its earliest stages, with proper treatment, it is highly curable.

The overall 5-year survival rate for white patients with malignant melanoma is 80% compared with 95% for patients with other kinds of skin cancer. The 5-year survival rate for localized malignant melanoma is 89%; however, the survival rate, once melanoma has spread, is 39%.



Do You Have A Suspicious Mole?

"A suspicious mole is nothing to wonder about," said John R. Luckasen, M.D. "It could be life-threatening."

Moles sometimes remain the same for many years. Sometimes they become suspicious in one or more ways, and then it is time for a quick professional assessment.

"The reason we talk about acting quickly when someone spots a suspicious mole is that it could be a malignant melanoma, and they can kill," Stephen C. Papenfuss, M.D., said.

When a malignant melanoma is detected early, it can be cured. However, the cells from that form of cancer may spread to other sites in the body as the cancer progresses.

More and more malignant melanomas are being spotted each year because people have been less cautious about exposure to the sun.

Diagnosis by a physician should be made immediately when a suspicious mole is observed. Bert C. Frichot, III, M.D. said these are some of the indications of a malignant melanoma:

•The mole appears asymmetrical—not round.

•Borders of the mole are often uneven and notched.

•Often there are several different shades of coloring.

•The diameter of the mole becomes larger than others.

Diagnosis isn't painful or difficult. The specialists at The Skin Cancer Clinic, a division of Midwest Dermatology Clinic may choose to remove a small sample for analysis in a laboratory to determine if cancer is present. Called a biopsy, the test is the only way to be certain whether a mole is cancer-free.

Dr. Luckasen described other skin cancers and related conditions:

Basal cell carcinoma is the most common form of skin cancer. It usually grows slowly and appears as a raised nodule which often crusts, ulcerates, or bleeds. It is not considered life-threatening, but it can cause considerable disfigurement.

Squamous cell carcinoma is a common form of skin cancer which can spread to another part of the body via the bloodstream. It usually appears as a warty, red, raised nodule that ulcerates.

Pre-Cancerous keratoses are raised, scaly lesions which develop on the scalp, face, arms, and back of hands and can bleed, periodically heal, and then return.

Skin Cancers Traced To Roots By Microscopic Surgery

A deep summer tan has been a fashionable item in recent decades, but deep tans have brought cases of skin cancer to a number that John R. Luckasen, M.D., terms "an epidemic."

The Midwest Dermatology Clinic's physicians perform the surgery which is required to remove skin cancer.

"All skin cancers are not alike," said Stephen C. Papenfuss, M.D. "and our surgical methods differ from case to case, too."

Nancy was a recent patient at Midwest Dermatology's Nebraska City office. She had fair skin and red hair, and often helped out on the family farm for hours at a time without protection from the sun.

A small sore that bled was the first indication that she was developing basal cell carcinoma, one of the most common forms of skin cancer. It became increasingly itchy and sore, so she took special interest when she saw an advertisement for Mole-Watch, a free skin cancer screening service of The Skin Cancer Clinic division of Midwest Dermatology Clinic, in her local newspaper. She filled out the coupon and soon was contacted to set up the appointment.

Mohs Microscopic Surgery

Bert C. Frichot, III, M.D., made Nancy's diagnosis and recommended Mohs microscopic surgery to insure that the cancer would be removed completely. The cancer was located near the edge of her nose, above her lip—an area considered at high risk for cancer to recur using conventional skin surgery.

Mohs surgery is a step-by-step search to remove all of the cancer.

Systematically, Dr. Frichot removed layer after layer of cancer, examining each layer with a microscope until a layer was examined which contained no cancer cells.

"In skin cancer, what you see is not what you get," said Dr. Luckasen. "Often the cancer spreads beneath the surface like the roots of a garden weed."

Mohs microscopic surgery offers the highest cure rate of all treatment options.

Nancy was able to have her surgery performed as an out-patient, and she only required local anesthetic.

Specialists

At Midwest Dermatology Clinic, Nancy was attended by a specialized physician who had a thorough knowledge of skin cancer, seeing hundreds of cancers each year. The physician was able to choose the appropriate kind of surgery for a cancer in an area with a high risk of recurrence, and they were equipped to remove the skin cancer completely.

Nancy has a new respect for the damaging power of the sun. She wears a wide brimmed hat and long sleeves when she is outside and shades her sensitive skin from the sun whenever she can, generously applying chemical sunscreens with a rating of 15 or more.

Now, Nancy understands the importance of returning for regular skin examinations.

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Cooperative Extension provides information and educational programs to all people without regard to race, color, national origin, sex or handicap.

Answers About Skin Cancer

Skin cancer. Approximately 500,000 people in the U.S. will develop some form of it this year. Those most likely to be cured of their skin cancer are people who sought medical attention at the earliest sign of a change in the skin.

What is skin cancer?

There are several types, but they all are uncontrolled growths of abnormal cells in one or more layers of the skin. The three most common types of skin cancer are basal cell carcinoma, squamous cell carcinoma, and malignant melanoma.

Can we predict who will get skin cancer?

Anyone can get skin cancer, but some people are much more likely to get it than others:

a. **People with fair skin.** They sunburn easily. Usually they have light hair and light colored eyes.

b. **People who are exposed to the sun.** Sunbathing, fishing, golf, or tennis can cause considerable exposure. So can occupations such as farming and ranching, or construction. Artificial sunlight in tanning parlors can cause cancer, too.

c. **People who have a family history of skin cancer.**

What causes skin cancer?

The ultraviolet rays of the sun are believed to be the chief cause of skin cancer. These are the same rays that cause premature aging of the skin including wrinkles, scaly spots, and brown pigmentation on the face.

What are the types of skin cancer?

Each kind of skin cancer has its own characteristics. There are some signs that indicate pre-cancerous conditions, too.

Pre-Cancerous Keratoses. These are raised, scaly lesions primarily on the sun-exposed areas such as the scalp, face, arms, and backs of hands. They can bleed, periodically heal, and then return.

Basal Cell Carcinoma is the most common form of skin cancer in the U.S. It is usually a slow-growing, raised nodule which often crusts, ulcerates, or bleeds. It's not considered life-threatening, but it can cause considerable disfigurement, particularly when it occurs on the nose or cheeks. It most commonly occurs on the head, neck, and trunk.

Squamous Cell Carcinoma is another common form of skin cancer, and it can spread to another part of the body via the bloodstream. Pre-cancerous keratoses can become squamous cell carcinomas. The cancer usually appears as a warty, red, raised nodule that ulcerates. The ears, face, lips and back of hands are where squamous cell carcinoma most often occurs.

Malignant melanoma is the most dangerous form of skin cancer that shows sign of change. Any change should be examined, for early detection is very important in preventing the spread of this dangerous and life-threatening cancer.

What are the warning signs of skin cancer?

- A new or existing growth that increases in size.
- A spot or area that itches, crusts, scabs, or bleeds.
- An open sore or wound that does not heal.

How is skin cancer diagnosed?

People who notice a suspicious change on the skin should consult a physician. A small sample of the suspicious area (called a biopsy) may be taken and examined under a microscope. An examination of the tiny skin sample will reveal whether the growth is cancerous. The physician will also inspect the remainder of high-risk skin surfaces for signs of suspicious growths.

How is skin cancer treated?

Complete removal of cancerous cells is essential for the treatment of skin cancer. It is important that pathologic examination of all cancers be carried out to insure that the tumor has been eradicated.

Pre-cancerous keratoses may be removed using an electric needle (electrodesiccation), freezing (cryosurgery), or focused light (laser surgery).

Small skin cancers may be removed through surgical excision, electrodesiccation, laser surgery or radiation.

Larger skin cancers or those in sensitive areas such as the face are often removed with Mohs' surgery. This microscopic technique assures that all the cancer is removed. It has the highest cure rate of any form of therapy.

How can skin cancer be prevented?

1. Minimize your skin exposure between 10 a.m. and 3 p.m. The sun's damaging rays are strongest during these hours.
2. Wear protective clothing including a hat and long-sleeved shirt.
3. Wear a chemical sunscreen and reapply it frequently, especially after swimming or perspiring heavily. The Skin Cancer Clinic recommends a SPF rating of at least 15.
4. Avoid tanning parlors. Ultraviolet light causes sunburn, premature aging of the skin, and increases the risk of developing skin cancer.
5. Do routine inspection of all skin areas-- especially those areas exposed to the sun: head, face, hands and arms.

Free Cancer Education Programs For Adults

American Cancer Society programs focus on sites of the body where most cancer strikes. Audiences learn such facts as the importance of taking control of your lifestyle, the health risks of cigarette smoking and tips on quitting, how to do breast self-examination, how colorectal cancer can be detected early and what the Pap Test is.

The program can be tailored to your needs and interests allowing as much time as your group would require for a speaker and a film with discussion following. Various posters are available to help advertise your educational programs in advance and, in addition, emphasize the educational message at your program.We do ask for at least three weeks advance notice in setting up a program, and we hope that there would be at least 20 people in your audience. Remember, all educational programs including speakers and promotional materials are free of charge.

If you have any further questions or are ready to schedule a program, please contact the adult education volunteer at the American Cancer Society office in your area, or the Omaha office at 393-7742 or 1-800-642-8116.

Educational Programs Available From The American Cancer Society

Cancer Prevention/Risk Reduction

Audiovisuals

- Taking Control Slide-Tape (15 minutes)
- Taking Control 16mm or 1/2" Videotape (16 minutes)
- Taking Control Flip Chart (2019.02)

This program explains lifestyle changes that are necessary to help prevent or reduce the risk of cancer. The narrative centers on 1) protective factors such as food selection and exercise and weight control that should be considered, and 2) risk factors that should be eliminated from daily activity like dietary fat, tobacco, alcohol intake and over-exposure to the sun. The presentation also stresses the cautions that should be taken in the use of x-rays, estrogens and work-related cancer-causing agents.

Pamphlets

Taking Control Folder (2019.05)
Taking Control Self-Help Booklet (2019-01)
Nutrition, Common Sense and Cancer

Lung Cancer/Smoking Control

Audiovisuals

- Why Quit Quiz 16mm film or 1/2" Videotape (15 minutes)

This film stresses the value of an active and healthy lifestyle free from cigarettes while inviting audience participation through a series of questions on an accompanying quiz sheet. Included are interviews with former smokers who relate their own feelings and experiences about the benefits of quitting.

- Women and Smoking 16 mm film (15 minutes)

Three well-informed women tell why they continue to smoke, their feelings about quitting and how they plan to give it up. Besides cancer and smoking facts, this film addresses topics such as pregnancy and fetal development, weight gain, parental example, and the attractions of a cigarette-free "new life."

- Let's Call It Quits 16mm film (28 minutes)

Tom Bosley of TV's "Happy Days" humorously portrays the delaying tactics used by a person who publicly promises to quit smoking cigarettes for all the evident reasons yet feels real dependency on cigarettes.

Pamphlets

Danger
Decision Is Yours
How Can We Reach You?
If You Smoke, Take This Risk Test
Quit Smoking—The Lives You Save Could Be Theirs
Quit Smoking Now/Before You Have to Quit
Why Start Life Under A Cloud (smoking and pregnancy)
Can They Stop Smoking? Can You?
Quit Cigarettes, Live Longer

Breast Cancer Control

Audiovisuals

- How to Examine Your Breasts 16mm film or 1/2" VHS Videotape (6 1/2 minutes)

Demonstrates the three steps of breast self-examination: while bathing, in front of a mirror and lying down.

- Spenco Breast Kit or Betsi Model

Assist speakers in demonstrating correct technique and allows audiences time for return demonstration of breast self-examination.

Pamphlets

How to Examine Your Breasts
Mammography-Saving More Lives
Got a Few Minutes

Skin Cancer Control

Audiovisuals

- Sense in the Sun (14 minutes)

Over-exposure to the sun at work or play can cause skin cancer. The story of a fisherman's sore on his cheek which won't heal, his prompt visit to his physician and simple surgery demonstrates the value of early detection.

Pamphlets

Sense in the Sun
Why You Should Know About Melanoma
Fry Now Pat Later (check availability)

Health CheckUps

Audiovisuals

- On With Your Life 16mm film (12 minutes)

The former TV series "Mission Impossible" team discusses the importance of personal health care and the value of periodic health checkups. The importance of a procto is emphasized.

Pamphlets

Cancer Facts For Men
Cancer Facts For Women
Guidelines Concerning Cancer-Related Check-Ups
Listen To Your Body

Cancer 800 Numbers

Cancer Information Service
1-800-255-5505

Cancer Lifeline
1-800-331-3336

Sunbathing And Skin Cancer

By Robert T. DeVore

Scientists agree that ultraviolet radiation from the sun is the leading cause of skin cancer, which is responsible for an estimated 6,500 to 7,500 deaths in this country every year. Sunlamps also can produce ultraviolet radiation, and FDA is developing performance standards for them to reduce potential hazards. People can reduce the potential hazard from the sun by not exposing themselves to it unnecessarily for extended periods between 10 a.m. and 2 p.m., when most ultraviolet radiation reaches the earth's surface.

Carcinogen. That word has become all too familiar in recent years. A carcinogen is something that causes cancer. FDA and other regulatory agencies spend a good deal of their time devising ways to control cancer-causing agents and, where possible, to eliminate them from the products we use and from our environment.

But there is one carcinogen that no regulatory agency could or would ban because without it there would be no life. It is the sun.

The sun—or, to be more precise, ultraviolet radiation from the sun—is the leading cause of skin cancer. And although many people apparently believe otherwise, skin cancer is a significant health threat.

The National Cancer Institute has estimated that more than 300,000 cases of just two types of skin cancer develop each year in the United States. Another category of skin cancer—an especially deadly type—has an annual incidence of more than 9,000.

The three kinds of skin cancer together may kill at least 6,500 and perhaps as many as 7,500 people in the Nation every year, according to Cancer Institute mortality data.

Skin cancer is the commonest form of cancer, It causes about two percent of all cancer deaths. Admittedly, a much higher yearly toll is taken by cancer of the digestive organs, lungs, and some other parts of the body. But just about every skin cancer death is avoidable and, therefore, especially tragic. Skin cancer, because it can be seen, can almost always be detected and treated in an early stage. In fact, 95 percent of skin cancer patients today are free of the disease after treatment. Many scientists believe, however, that 98 or even 100 percent cure rate would be possible if people would seek medical help soon enough.

Skin cancer is not only a real public health problem, but a rapidly worsening one. In a special study done by the National Cancer Institute, the number of skin cancer cases and deaths from the disease was found to have doubled in one large metropolitan area over a 10-year period. For the Nation as a whole, investigators suspect a twofold increase in skin malignancies in the last 25 years. This has been accompanied, they note, by a marked increase in sunbathing.

The most common skin cancers are named for the cells from which they develop. These are basal and squamous cells. Basal cells lie in the lowest part of the epidermis, which is the outermost layer of skin. Squamous cells comprise most of the epidermis. Basal cells produce more cancers than squamous cells. Basal cancers are characterized by pale, waxy, pearly nodules or by red, scaly, sharply outlined patches. Squamous cell cancers appear as scaly patches and nodules. Eventually the nodules of either type may ulcerate and form crusts.

Melanoma, the third important type of skin cancer, is much less common—but far more dangerous. Melanomas usually are dark brown or black, although some are without pigmentation. They occur as mole-like growths, initially small but increasing in size. Many arise from moles. They may ulcerate and often bleed easily when slightly injured.

Skin cancer, like all cancer, is marked by uncontrolled growth that can spread to other body tissues or organs. When this takes place, the cancer is said to "metastasize." If they are not controlled, virtually all metastasizing cancers prove fatal.

Basal cell cancers rarely metastasize. Squamous cell cancers do fairly often. Only a small percentage of basal and squamous cell cancers result in death. On the other hand, 40 to 50 percent of melanomas are fatal, sometimes killing the patient within a few months.

Skin cancers may be treated successfully in several ways. They may be removed surgically, eliminated by heat or freezing, or treated by X-ray. Active chemicals also may be applied directly to the tumor as ointments or solutions. Sometimes a combination of methods is used.

Any skin change should be called to a physician's attention. The physician may take a bit of suspected tissue for microscopic examination (biopsy) by a pathologist. If the growth is small, it may be removed entirely for biopsy.

The ultraviolet portion of sunlight is the leading cause of skin cancer. The middle wavelengths of ultraviolet light are the ones that cause the skin to burn or tan. Excessive exposure to these wavelengths—especially when the sun is most intense—can cause skin cancer. Short wavelength ultraviolet light also can cause skin cancer, but most of it is prevented from reaching the earth's surface by the ozone larger in the stratosphere.

Ultraviolet light—which is really radiation—is invisible and cannot be felt at the time of exposure. Its after effects, however, can include eye injury, sunburn, and a variety of skin eruptions, premature aging of the skin, and skin cancer. Excessive heat from the sun can cause illness and, in rare instance, death by sunstroke.

The relationship between ultraviolet radiation and basal and squamous cell cancer is well established. About 80 percent of both cancers occur on areas of the body most exposed to the sun—the face, head, neck, arms, and hands. However, the fact that skin cancers sometimes develop on body parts seldom exposed to the sun indicates other causes. Research suggests that certain genetic traits or environmental chemicals may be involved, possibly sometimes in combination with ultraviolet radiation.

Both basal and squamous cell cancers have been induced in animals by ultraviolet radiation.

The case for ultraviolet radiation as a cause of melanomas is not as clear as it is for basal and squamous cell cancers. Although a large number of melanomas develop on body areas most exposed to the sun, many occur on unexposed places. But all signs point to the sun as the main cause of all kinds of skin cancer.

One indication of the relationship between ultraviolet radiation and skin cancer is the fact that black people, whose skin is protected from sunlight by pigmentation, have much less skin cancer than white people. A National Cancer Institute survey found the melanoma incidence rate for blacks to be only 0.8 per 100,000 people in contrast to a 4.5 rate for whites.

The clearest indication of a connection between ultraviolet radiation and skin cancer has been in the finding of several studies that the incidence of the disease increases markedly in latitudes where the sun shines longer and exposure is greater. One such study, conducted by the Cancer Institute during 1971 and 1972, compared non-melanoma skin cancer incidence in four regions—Dallas-Fort Worth, San Francisco-Oakland, Minneapolis-St. Paul, and the State of Iowa. The Dallas-Fort Worth area, with a latitude of 32.8 degrees N., was found to have over two and a half times more cancers than Minneapolis-St. Paul with a latitude of 44.9 degree N.

Many sunlamps produce ultraviolet radiation that, like ultraviolet from the sun, can cause eye injuries, skin burns, and, possibly, even cancer. Because the lamps are potentially hazardous, FDA is developing a performance standard for them. The standard would require, among other things, that sunlamps prominently display warning labels and that they have timers that shut them off automatically.

In addition to giving off middle wavelength ultraviolet radiation that causes sunburn, some sunlamps also emit short wavelength ultraviolet that can be highly dangerous to the cell structure of the body. FDA's standard would call for the minimization of short wavelength ultraviolet radiation.

Scientists in FDA's Bureau of Radiological Health say that short wavelength ultraviolet radiation can affect the genetic material, known as DNA, that enables cells to duplicate themselves. When the rays strike the DNA, damage may occur. Most of the time, the cell repairs the damage. But when it does not, the cell may die, contributing to an appearance of premature aging of the skin, or may change its character completely. Such changes in cell character are called mutations, and some mutations may be cancerous.

Some scientists believe that the injury from which skin cancer ultimately may develop may start when the first bit of ultraviolet radiation—middle or short wavelength—strikes a particular part of the DNA. Thus, people who sunbathe frequently in their youth may be setting the stage for skin cancer in their more mature years.

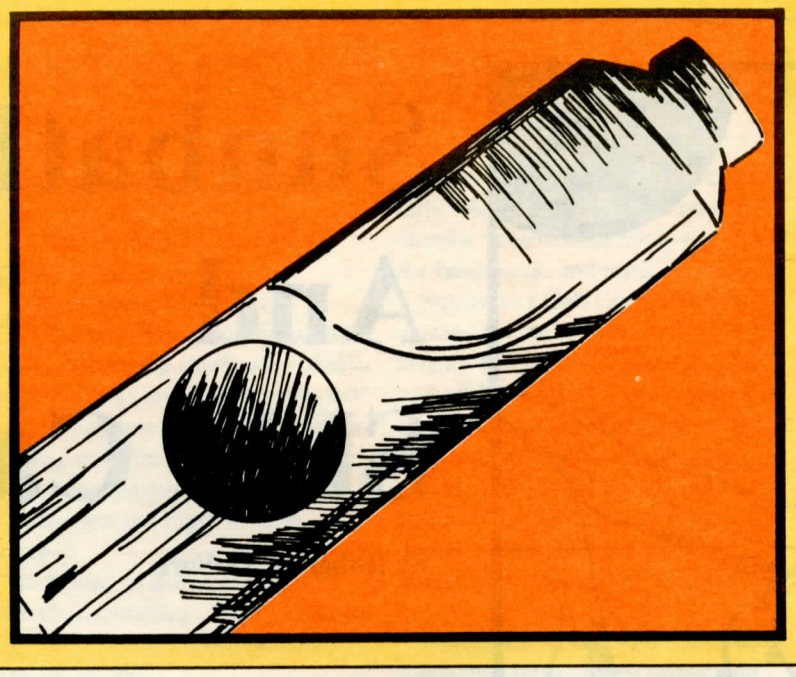
Generally speaking, skin malignancies rarely develop on people under 20. They increase in number gradually to a peak at about age 75. The Cancer Institute found that in the Dallas-Fort Worth area skin cancer rates among white men reached a phenomenal 3,300 per 100,000—more than three percent—in the age group 75-84.

Some people are destined by birth to be skin cancer prone. Persons with blue or green eyes and fair skin—notably Irish and other Celtic people—who freckle and burn easily, are especially vulnerable. Just how vulnerable is demonstrated by the fact that Ireland has the world's third largest skin cancer death rate, following South Africa and Australia, even though Ireland is in a latitude that receives less than half the burn-causing ultraviolet radiation of either of the other countries.

Most dermatologists consider excessive sunbathing foolhardy. To the argument that the sun stimulates the production of vitamin D on the skin the experts reply that you can get all the vitamin D you need from a proper diet. To the contention that the use of sunscreen lotions will promote a tan without burning, the experts say that a tanned skin is a damaged skin. Beside, they add, whether you burn or tan, there always is a chance that ultraviolet radiation will damage the DNA and initiate the cancer formation process.

About 60 percent of total annual ultraviolet radiation reaches the earth's surface between 10 a.m. and 2 p.m. Thus, people may reduce exposure to much potentially damaging radiation by not exposing themselves unnecessarily to the sun for extended periods during this four-hour interval.

Source: Robert T. DeVore is a freelance writer.



Sunscreens
True Or False:

Sunscreens labeled "15" and higher do not protect you against all the sun's rays.

A tan may protect you against some sunburn, but not against all wrinkling or skin cancer.

You can endanger your skin by using too little sunscreen or not applying it one-half hour before going out in the sun.

Sunlight coming through a window can damage your skin.

Even if you are more careful than ever about going out in the sun nowadays, you may be surprised at the answers to the above questions. All of them are true.

While you may be used to warnings about limiting sun exposure and using sunscreens, researchers are becoming ever more cautious about how much sun is good for you. The following questions and answers may help you decide how much sun you should be exposed to and what precautions you can take to protect yourself and your family.

Is any sun exposure safe?

Although sunlight is essential for human life, daily exposure to the sun over a lifetime is a major cause of skin damage, including wrinkling and skin cancer. Many of the skin changes attributed to aging are in fact signs of sun-induced skin damage. Every year, more than 500,000 people in the United States get skin cancer. It is the most common form of cancer, with rates growing three to five percent annually. Left untreated, skin cancer can be life-threatening.

Is tanning safe?

Any tan indicates skin damage. Although a tan may give you some protection against sunburning, it will not fully protect you against wrinkling or skin cancer. Some people are especially vulnerable to the effects of the sun, especially fair-skinned individuals who burn easily and tan poorly or not all. Of those who do tan well, the deeper the color of the tan, the more extensive the skin damage.

What is the best protection against the sun?

Staying indoors is the best protection against getting sun-damaged skin. The hours between 10 a.m. and 3 p.m. are the worst times to be outside. When you are outside, wearing tight-weave clothing that covers the body, wearing a hat, and using maximum protection sunscreens can help you reduce the risk of skin damage from sunlight.

What kind of sunscreen protection do you need?

Most people benefit from sunscreens with high sun protection factor (SPF) numbers, such as 15 or greater. The SPF number gives you some idea how long you can remain in the sun before burning. If, for example, you would normally burn in 10 minutes without sunscreen, applying a 15 SPF sunscreen may provide you with about 15 minutes in the sun before burning. Swimming and perspiration, however, will reduce the actual SPF value for many sunscreens.

Sunscreens with SPF numbers greater than 15 may benefit those who want to minimize their exposure to the sun, especially those who are fair-skinned, live in climates close to the equator or at high altitudes, work or play outdoors, or perspire heavily. Because skin irritations may result from various sunscreen ingredients, you may want to first test a product by applying a small amount to a limited area of your skin.

Do high SPF number sunscreens fully protect you?

Unfortunately, even sunscreens with high SPF numbers offer you less than full protection. Sunlight exposes you to two kinds of ultraviolet light, called UVA and UVB. Both can cause skin damage, including wrinkling and skin cancer.

Although virtually all sunscreens provide some level of protection against UVB rays, no product yet screens out all UVA rays. SPF sunscreen numbers indicate sunburn protection from UVB rays only. No rating system yet exists for UVA.

There is no way, then, to tell how much UVA protection you are getting. Some researchers estimate that the level of protection in many products advertising UVA protection, even those with high SPF numbers, is probably equivalent to an SPF 3 or 4. So, even if you use high SPF number sunscreens, you still are vulnerable to skin damage from the sun's UVA rays.

How much sunscreen should you use?

You will not get the full protection offered by the sunscreen unless you apply the recommended liberal amount on your skin. Unfortunately, many people use much less. A sunscreen with an SPF of 15 may give only half that protection if you do not use enough of it.

If you are at the beach, for example, use about an ounce of sunscreen over your whole body for one application. That means you should plan to buy about one 8-ounce container or more of sunscreen per person for each week you are at the beach.

If you frequently go swimming or perspire, use a waterproof product for the best protection. Make sure to reapply the sunscreen as needed during any outdoor activity; otherwise, you are not getting the protection you need from the sun's rays.

When should you use sunscreen?

Skin damage does not occur only on the beach or the ski slopes. Most people who are going to be out in the sun for more than 10 minutes would benefit from daily use of sunscreen on the parts of the body exposed to the sun. Even casual exposure to sunlight—while driving a car, walking to the store, taking an outdoor lunch break—contributes to the cumulative lifetime exposure that may lead to skin damage.

Make sure you apply the sunscreen about one-half hour before going out in the sun to give your skin a chance to fully absorb it.

If you are taking any medications, ask your doctor or pharmacist if these medications will sensitize your skin to the sun and aggravate sunburn or rashes. Common drugs that may do this include: certain antibiotics; birth control pills; diuretics; antihistamines; and antidepressants.

Are all sunscreens basically the same?

Sunscreens contain a variety of ingredients. Although some sunscreens may provide more moisturizers, for example, those with identical SPF numbers give you equivalent sunburn protection from UVB rays. Because of the cost of buying sunscreen products year-round, you may want to shop for competitively-priced brands of sunscreen offering the level of protection you need.

How effective are sunblocks?

Do not be misled by sunscreen products that claim they are sunblocks. Only opaque substances, such as zinc oxide or titanium dioxide, totally block the sunlight. These products are most practical to use on specific areas of the body most exposed to the sun, such as the nose or lips.

Are there special precautions you should take with children?

Parents should see that sunscreens of SPF 15 or greater are applied routinely when children go outdoors. Because sunscreens may irritate baby skin, and babies' developing eyes are particularly vulnerable to sunlight, experts recommend that infants less than six months old should be kept out of the sun altogether.

Experts estimate that about 50 percent of an individual's sun exposure occurs by age 18. Some have suggested that schools, child care centers, and camps rearrange outdoor play time to minimize exposure to the midday sun.

Are indoor tanning devices safe?

Tanning devices, like natural sunlight, emit ultraviolet rays. These UVA or UVB rays, whether from artificial or natural sources, can cause skin damage.

Where can you go for more information?

Your doctor or dermatologist may have additional material on tanning and sunscreens. For a free brochure on **Indoor Tanning**, write: Federal Trade Commission, 6th and Pennsylvania Avenue, N.W., Washington, D.C. 20580.

Need Health Information? *Dial 1-800...*

The cost of health care is going up, but free medical information is just a phone call away when you use **Health Hotlines**, a new booklet from the National Library of Medicine.

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