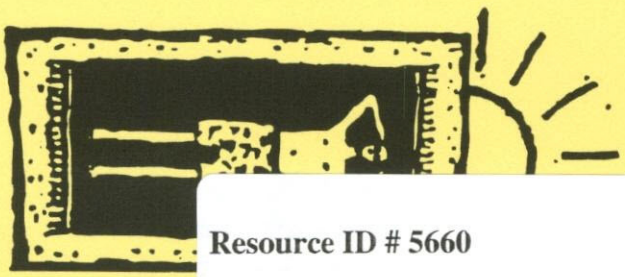
Skin Cancer: The Growing Epidemic

A Self-Study Module for Nurses



Resource ID # 5660

Skin Cancer: The Growing Epidemic - A Self Study Module for Nurses

Presented by the

Nurse Oncology Education Program

Funded by the TEXAS CANCER COUNCIL

NOEP is a project of the Texas Nurses Foundation/Association

Nurse Oncology Education Program
Texas Cancer Council/Texas Nurses Foundation

SKIN CANCER: THE GROWING EPIDEMIC

OBJECTIVES

After reading the articles and taking the post-test the participant will be able to:

1. Identify the risk factors and incidence of Malignant Melanoma.
2. Describe the characteristics of Malignant Melanoma.
3. Describe skin self-examination/assessment.
4. Describe the signs and symptoms of skin cancer.
5. Describe the characteristics of Actinic Keratosis.
6. Identify patient teaching measures.
7. Identify the risk factors and incidence of Basal Cell and Squamous Cell Carcinoma.
8. Describe the characteristics of Basal Cell Carcinoma.
9. Describe the characteristics of Squamous Cell Carcinoma.

TEST INSTRUCTIONS

1. Darken your answer for each question on the test form.
2. Complete the registration information in the spaces provided on the evaluation form.

TO RECEIVE A CE CERTIFICATE FOR 1.0 CONTACT HOURS THE PARTICIPANT MUST:

Complete and submit post test (minimum score - 85%, 11 answers correct, to be evaluated in NOEP office), registration information, evaluation and a **$8.00** processing fee payable to the **Nurse Oncology Education Program, 7600 Burnet Road, Suite 440, Austin, Texas 78757.** Please allow four (4) weeks for processing.

The above information must be received and post-marked no later than October 1, 1998. The continuing education credit (1.0 contact hours) expires October 1, 1998. You may duplicate the answer sheet as necessary for colleagues who desire C credit for the module. This module has been copyrighted.

If you have any questions, please contact the NOEP office at (512) 467-2803.

REGISTRATION INFORMATION - *SKIN CANCER: THE GROWING EPIDEMIC*

Name_____ **Position/Title**_____

Organization/Institution_____ **Department**_____

Mailing Address_____

City_____ **State**_____ **Zip Code** _____ **Phone**_____

Signature _____ **Social Security Number**_____

POST-TEST ANSWER FORM

	a	b	c	d		a	b	c	d
1.	○	○	○	○	8.	○	○	○	○
2.	○	○	○	○	9.	○	○	○	○
3.	○	○	○	○	10.	○	○	○	○
4.	○	○	○	○	11.	○	○	○	○
5.	○	○	○	○	12.	○	○	○	○
6.	○	○	○	○	13.	○	○	○	○
7.	○	○	○	○					

EVALUATION: *Please rate this Independent Study for the following:*	Excellent	Good	Satisfactory
1. Accuracy and timeliness of content	○	○	○
2. Relevance of the content to the learning objectives	○	○	○
3. Effectiveness of the teaching methods	○	○	○
4. Effectiveness of the learning methods	○	○	○
5. Achievement of personal objectives	○	○	○
6. Extent to which learning objectives were met:			
Identify the risk factors and incidence of Malignant Melanoma	○	○	○
Describe the characteristics of Malignant Melanoma	○	○	○
Describe skin self-examination/assessment	○	○	○
Describe the signs and symptoms of skin cancer	○	○	○
Describe the characteristics of Actinic Keratosis	○	○	○
Identify patient teaching measures	○	○	○
Identify the risk factors and incidence of Basal Cell and Squamous Cell Carcinoma	○	○	○
Describe the characteristics of Basal Cell Carcinoma	○	○	○
Describe the characteristics of Squamous Cell Carcinoma	○	○	○

7. How many minutes did it take you to complete the module and take the test? _____

Skin Cancer: The Growing Epidemic

Surviving Melanoma - *A Nurse's Story*

Catherine McGuire, RN, BSN, MPAff
NOEP Education Coordinator

Cathy Dell was 27 years old when she visited her dermatologist to have a normal mole removed. During the visit she asked him to examine an elevated, dark lesion on her leg that had been present for some time. She suffered several serious sunburns to her fair skin, and even though she was a practicing nurse, she had not thought much about the lesion or the possibility it could be melanoma. The doctor excised the lesion and submitted it for pathological examination. He was honest with her about the likely diagnosis of melanoma, assuring her that the margins around her incision were "clean." Still, she was not prepared for the results of the biopsy or the journey ahead.

At the time of diagnosis, she was a healthy, athletic woman full of expectation entering the prime of her life. Thirteen years later, having survived her battle with melanoma, Dell calmly reflects upon the impact of the disease on every dimension of her life.

When she discovered a large node in her left inguinal area in November of 1982, Dell decided to fight melanoma with everything she had. She immediately saw a general surgeon. He excised the enlarged node and left the other regional nodes intact since they showed no evidence of disease. When the biopsy report confirmed metastasis, she sought the help of a local oncologist. The oncologist advised her that chemotherapy would not be of much benefit; it would shrink the neoplasm but not cure it. He felt the best course was Tamoxifen followed with serology and chest X-rays to evaluate for further metastasis. His grim estimate of her survival chances – a 50/50 chance of surviving three years – convinced Dell to become a fierce advocate on her own behalf. She demanded a referral for a second opinion. Her doctor reluctantly contacted an oncologist in Galveston who agreed to see her. Dell contacted him on her own and followed up with a visit.

Her new oncologist recommended additional nodal excision and chemotherapy. Before acting on this advice, she heard about melanoma research taking place at Emory and Duke Universities. She called Duke University and learned research was being conducted in a melanoma clinic serving 2,000 patients. The study involved clinical trials on patients receiving *Vaccina Oncolysate* under two protocols.

Dell had to be free of clinical signs of metastasis past the lymph nodes to qualify for participation in the trials. Additional studies indicated she escaped further metastasis. She had one remaining concern: she did not want a placebo treatment. After receiving assurances that neither clinical protocol involved placebos, she decided to take the gamble.

"Cancer takes your control away...you are invaded. I have a strong belief that you are your own advocate. If you are not satisfied with your care, find another provider. Get the best information you can, then make your *own* decisions," Dell said.

The principal investigator of the Duke study urged Dell to undergo additional node dissection. He also recommended a wider excision at the primary site of the tumor. Treatment with the vaccine began after surgery. Participation in the clinical trials required her to receive 13 weekly treatments, bi-weekly treatments, then monthly treatments for a year. The treatment schedule had the potential to complicate her participation in the trials and make her treatment expensive. Dell decided the only solution was to take charge and coordinate her care between Duke University and Galveston.

Fortunately, both of Dell's new doctors supported her decisions and cooperated in her care. Although most of her treatment took place in Galveston, she was followed as a participant in the Duke melanoma study. Dell underwent nodal dissection in Galveston. Three nodes removed turned out to be positive for metastasis.

Although the nodes were positive, the surgery gave her new hope. She believed her cancer was gone and began a concentrated effort to give herself positive messages about being cancer-free. She decided

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Inside

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Malignant Melanoma

Deadly Skin Cancer & Growing Epidemic

Catherine McGuire, RN, BSN, MPAff
NOEP Education Coordinator

Cutaneous malignant melanoma, the deadliest form of skin cancer, strikes 32,000 Americans each year and claims the lives of some 6,000. In Texas alone, 372 people died from malignant melanoma in 1993. The toll is rising: the incidence of melanoma is increasing at a rate of four percent annually, making melanoma the most rapidly increasing cancer in Caucasians.[1] By the year 2,000 one in every 100 Americans will develop melanoma in their lifetime; twenty to thirty percent will die.[2]

While the median age at diagnosis is 45 years, increasing numbers of adolescents and young adults are victims of melanoma.[3] The primary cause is increased exposure to the sun's ultraviolet radiation.[4] Although most melanomas occur in sun exposed areas of the body, the disease can appear in areas not exposed to the sun.

Nature has provided us with a natural protection against melanoma: melanin. Melanin protects the epidermis from ultra violet rays while giving the skin its pigment. Melanoma arises from cells that synthesize and transport melanin, called melanocytes. Two types of melanocytes can be found in the skin: *dendric dermal melanocytes* which cause tanning, and *nondendritic nevus cells* which make up nevi, or moles. Each gives rise to different forms of melanoma.

Dendric dermal melanocytes that undergo malignant changes give rise to **lentigo maligna melanoma**. This type of melanoma occurs mainly in elderly patients in sun-exposed sites such as the face, hands, and arms. The primary lesion presents as a large, tan, raised lesion with a notched border. The least aggressive of the melanomas, lentigo maligna melanoma represents only 10 to 15 percent of all cases.[5]

Most malignant melanomas arise from nondendritic nevus cells found in moles. When these cells undergo malignant changes, they give rise to superficial spreading melanoma and nodular melanoma. **Superficial spreading melanoma** commonly affects adults from 20 to 60 years of age, appearing on the legs in women and on the upper back of both sexes. It appears as a flat lesion with a fine crust or scaly, surface with notched border. It may show a variety of colors, including tan, brown, black, red, white, or blue.[6] Superficial spreading melanoma accounts for approximately 70 percent of all cases.[7]

Remember the ABCD's of malignant melanoma!

Lesions with these characteristics should be considered suspicious

A Asymmetry - lesions that are asymmetrical in shape

B Borders - lesions with notched or poorly defined borders

C Color - tan, brown, blue, red or white areas in any combination

D Diameter - lesions larger than six millimeters in diameter (the size of a pencil eraser)

Nodular melanoma is the second most common melanoma, comprising 15 percent of cases.[8] This melanoma can appear most anywhere in adults from 20 to 60 years of age, but tends to present on the head, neck and trunk. The lesion is a raised, dome-shaped, blue-black or red nodule with clearly defined borders. Nodular melanoma is aggressive and metastasizes early.[9]

Acral-lentiginous melanoma accounts for less than ten percent of all melanomas. It rarely occurs in whites, but is the most common type of melanoma among Blacks, Asians, and Hispanics. The lesion develops on non-hair-bearing skin, such as the palms of hands, soles of feet, nail beds, and mucous membranes. It may be raised or flat, smooth or ulcerated and show variegated colors, shades of blue and black.[10]

Malignant melanomas may grow radially or vertically. With the exception of nodular melanoma, most melanomas grow radially in the early stages of disease, sometimes up to ten years. Because little potential exists for metastasis during the radial growth phase, most melanomas are curable with early detection and treatment. Once melanoma enters a vertical growth phase it may quickly metastasize, as the neoplastic cells penetrate the dermis and subcutaneous tissue and travel through the blood and lymph to other parts of the body. Although melanoma can metastasize to any part of the body, the most common sites are the lymph nodes, bone, lungs, liver, spleen, central nervous system, and other areas of the skin.

Moles: An Important Risk Factor

Numerous studies show greater numbers of nevi on the body increases one's risk of melanoma. Those body sites with higher mole counts are more likely sites for melanoma lesions.[11] The exact degree of risk associated with nevi is more controversial. Experts disagree on the percentage of melanomas that develop from pre-existing nevi, with estimates ranging from 20 to 80 percent. The risk of developing melanoma from nevi is thought to be greater for those patients with a family history of melanoma.[12]

Malignant melanoma may arise from three types of nevi: common acquired nevi, dysplastic nevi, or congenital melanocytic nevi. The most common of these is the **com-**

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Here's Looking at You, Kid

How to do a skin self-assessment

Lisa Green RN, BSN, OCN
OCN Program Specialist

As partners in health promotion, nurses teach clients to monitor their own health. Knowing how to properly perform a skin self-examination enables clients to care for themselves, have an increased baseline awareness of their skin and note changes in lesions that could lead to early detection of skin cancer.

Simple visual inspection is the primary method of skin assessment; palpation verifies and supports visual findings. Perform skin examination during routine activities like dressing or towel drying after bathing or showering. The tools required are simple and inexpensive. A well-lighted area is essential. Natural sunlight is best, but direct light of at least 60 watts is acceptable. Try to avoid fluorescent lighting. A hand-held mirror and a full length mirror are also required for total body examination. A hand-held blow dryer and a stool or chair are optional, but help assure a thorough exam.

Start self-assessment by undressing completely. Keep these important questions in mind: 1) How long has this lesion been present? 2) Has this

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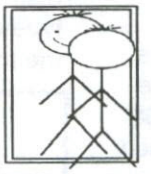
Spot the signs of skin cancer:



- A sore that does not heal
- Any sudden or progressive change in a mole's appearance
- Mole, bump or nodule that is scaly, crusty, oozing and/or bleeding
- Pain, itchiness, tenderness or change in sensation of mole or growth
- Swelling, redness or spread of color into skin near a mole or growth
- Elevation of a pigmented area of a mole that was flat

Actinic Keratosis: Precursor to Skin Cancer?

Dorothy A. Chesley, RN, PhD
NOEP Program Director

What do farmers, lifeguards, college students at the beach, fair-skinned blondes or redheads working on suntans, long-time tanning bed users and electrical linemen have in common? They all may have chronically sun-damaged skin and risk developing premalignant and malignant skin lesions. The most common form of skin damage caused by ultraviolet light is actinic keratosis (solar keratosis). This condition usually does not lead to malignancies but can develop into squamous cell carcinoma. As an individual ages, actinic keratosis becomes more common and usually appears on sun-exposed parts of the body. Lesions typically appear as thin, scaly, rough, and sometimes red areas on the face, hands and feet.

Avoiding ultraviolet radiation is the primary preventive measure for actinic keratosis. Researchers have found that a low fat diet also reduces the incidence of these lesions.[1] However, most studies on dietary influences have been on animals rather than humans.

Secondary prevention of skin cancer consists of conservative treatment of actinic keratosis through cryosurgery (liquid nitrogen), electrodesiccation or topical 5-fluorouracil (5FU) cream usually adequate for most lesions.[2] Different application times for liquid nitrogen are recommended depending on the size of a lesion. If the lesion persists after treatment, further examination and biopsy are required to determine the presence of an invasive squamous cell carcinoma. When suspicious

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Skin Cancer Risk Factors

- Amount & intensity of occupational & recreational sun exposure
- Blistering sunburn before age 18
- Proximity to the equator - Texas and southwestern U.S. at higher risk
- Fair, freckled complexion; light hair-red, blonde, light brown; light eyes-blue, green, gray, hazel
- Chemical exposure including creosote, coal pitch, tar, arsenic and cutting oils
- Radiation exposure for treatment of acne or other skin conditions

Basal Cell and Squamous Cell Carcinoma

Found Early, Treated Early, Easily Cured

Jenny Ferguson, BBA
NOEP Communications/Information Specialist

Non-melanoma skin cancer is the leading cause of cancer in the United States. More than 600,000 cases of skin cancer are diagnosed each year and the numbers continue to grow.[1] Fortunately, if detected and treated early, the majority of non-melanoma skin cancers are curable.

Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) are non-melanoma skin cancers. Both vary in clinical presentation and behavior. It is important to monitor changes in skin lesions and new growths; encourage patients to do the same.

BCC is the most prevalent form of skin cancer. It originates from the basal layer of cells in the epidermis. The cellular defect characterizing BCC is the inability of the basal cells to mature; they retain their capability of mitotic division beyond the basal layer and do not shed like normal cells.[2]

Risk factors for BCC include chronic exposure to sunlight (recreational and occupational), age (it is rare to see BCC in persons younger than 40), cumulative exposure to carcinogens (including arsenic and industrial tar compounds), fair skin, light eyes and hair and family history of BCC.[3]

BCC is classified according to clinical and histological differences. Classifications include nodular BCC (most common), superficial BCC, pigmented BCC, morpheaform (sclerotic) BCC and keratotic (basosquamous) BCC.[4]

Nodular BCC is the most common type of BCC. It begins as a small pearly nodule resembling a smooth pimple that fails to heal. As the tumor enlarges, the border becomes rolled and raised and the center ulcerates due to necrosis (tissue death). Lesions are usually asymptomatic, although bleeding upon slight injury is common. This type of BCC is most often found on the face (especially the nose), head and neck.[5]

PROTECT YOUR SKIN FROM SUN DAMAGE!

- Avoid outdoor activities when sunlight is most intense - 10:00 A.M. to 3:00 P.M.
- Wear a hat, long sleeves & pants of dry, close-knit fabric in the sun
- Use sunscreen with SPF 15 and choose one that protects against both UVA and UVB radiation ("broad spectrum")
- Apply sunscreen to every body part exposed at least 30 minutes before going outside - Don't forget lips, ears, neck, nose and hands
- Apply sunscreen when skiing and hiking - Sunburn risk is greater at high altitudes & near snow
- Apply sunscreen even on cloudy days - Reflective agents such as sand, water and snow reflect as much as 100% of light and radiation
- Apply sunscreen every two hours; more often if swimming or perspiring heavily
- Avoid tanning beds and sunlamps - No tan is safe
- Check your skin regularly for changes in moles or new growths

Superficial BCC appears most frequently on the trunk and in actinically damaged skin, often as a result of medical ingestion of arsenic over a long period of time. It appears as an erythematous (red, irritated, swollen), scaly patch with a raised pearly border, discreet nodules and multiple minute ulcerations. This lesion is sometimes confused with psoriasis. Invasive growth will occur if treatment is delayed.[6]

Pigmented BCC is similar to nodular BCC, but differentiated by the presence of pigment in the dermis, epidermis and tumor itself giving it a blue, black or brown appearance. Pigmented BCC is sometimes confused with malignant melanoma and may be associated with arsenic ingestion.[7]

Morpheaform or sclerotic BCC is a more aggressive variant. It appears as a flat or depressed sclerotic yellow or white plaque with an ill-defined border. Ulceration and bleeding may occur within the plaque. This type of lesion forms fingerlike projections or strands of tumor that extend both horizontally and vertically within the tissue planes of the dermis.[8]

Keratotic BCC appears clinically like nodular-ulcerative BCC. Unlike other types, keratotic BCC keratinizes (becomes hard and horny), grows aggressively, recurs locally and without treatment is likely to metastasize.[9]

Squamous cell carcinoma is the second most common skin cancer. It is a malignant tumor of the keratinizing (hardening) cells of the epidermis.[10] SCC, like BCC, grows by expansion and infiltration as well as tracking along tissue planes. Unlike BCC, SCC grows rapidly and has greater potential for metastasis to regional and distant sites.[11]

The most common cause of SCC is accumulated exposure to UV radiation. SCC can also result from exposure to ionizing radiation, arsenic, industrial chemicals, oncogenic viral infection and immunosuppression.[12] Like BCC, people with fair complexions, light hair and

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Melanoma, Continued from Page 2

mon acquired nevus, or normal mole, which appears as a round, evenly colored lesion less than 5 mm in size, with well-defined borders. **Dysplastic nevi**, or atypical moles, differ from normal moles, and have irregular, ill-defined borders, variable colors and grow to greater than 5 mm in size. Persons with dysplastic nevi are thought to be at significantly increased risk for melanoma. **Congenital melanocytic nevi** appear as raised, dark brown to black, oval or round nevi that often contain course hairs. The degree of risk for developing melanoma from congenital melanocytic nevi remains controversial. Most adults have 20 to 40 moles on the skin surface. Persons with dysplastic nevi, congenital melanocytic nevi, or a high number of normal moles should have a professional examination of the total skin surface every three to 12 months, perform skin self-examination on a regular basis, and take extra precautions to avoid exposure to the sun.[13]

Diagnostic Evaluation

Excisional biopsy confirms the diagnosis of melanoma. Staging involves the use of the American Joint Committee on Cancer TNM (tumor, node, metastasis) system. Vertical thickness of the tumor is considered to be the most important prognostic indicator.[14] Breslow's method is the most refined technique for measuring tumor thickness to the deepest level of neoplastic cells. Tumors with a Breslow's measurement of less than .76 mm have a 98% survivor rate 5 years after surgical excision; tumors at least 3 mm thick have a 5 year survival rate of only 48 percent.[15]

Further clinical evaluation includes a thorough medical history, physical examination with a focus on the skin and lymph nodes, neurologic assessment, a complete blood count, liver function panel, and chest X-ray. If lymphadenopathy is present at the time of diagnosis, nodal dissection is performed to determine metastatic lymph involvement.

Detection and Treatment: Old Controversies, New Frontiers

Early detection and treatment of melanoma have improved the overall five-year survivor rate to 81 percent. The treatment of choice for melanoma is surgical excision of the tumor. Traditionally excisional margins of three- to five-cm were the standard of care. Since the 1970's studies have confirmed that one-cm margins are acceptable for tumors less than .76 mm thick, while margins of two-cm are desirable for tumors greater than .76 mm thick, to prevent recurrence at the primary site.[16]

Lymph node excision is the most controversial issue in the treatment of localized melanoma. Since the regional lymph nodes are the most common sites for metastasis, some experts believe that lymph node excision is necessary for effective control of the disease. Clinicians agree that patients with evidence of lymph node involvement should undergo excision of the regional nodes. The controversy surrounds the question of whether to excise lymph nodes regional to the tumor site in patients who show no signs of lymphatic involvement. The practice of "elective lymph node dissection" (ELND) is based on the belief that it may eliminate occult metastatic cells in the lymph nodes before they disseminate to other parts of the body. While ELND is not recommended for patients with tumors less than .76 mm thick or those with advanced disease, proponents believe patients with tumors of intermediate thickness may benefit from the procedure. About 20 percent of patients with negative lymph nodes at diagnosis harbor undetected metastasis. Results of studies on the efficacy of ELND in improving survival rate are inconclusive. Research is underway to determine the efficacy of ELND for improving survival rate, optimal timing of ELND and the patient population who would benefit from the procedure.[17]

A new technique may help clinicians determine whether node dissection is necessary. The procedure involves the use of dye to map the flow of lymph from the primary tumor to the regional lymph nodes. The lymph nodes are then excised for pathological evaluation, so the presence of metastatic cells can be detected. Several studies are in progress to evaluate this technique.[18]

Traditional cancer treatments have been ineffective in combating melanoma. Radiotherapy has shown little usefulness, except palliative control of symptoms from metastasis. Radiation may be more effective in the treatment of melanoma when delivered in combination with hyperthermia. This treatment is being studied.[19]

Chemotherapeutic agents administered alone or in combination have also shown disappointing results in melanoma patients. Dacarbazide (DTIC), considered most effective, has a response rate of only 14 to 30 percent. However, the use of chemotherapeutic agents to treat extremities affected by melanoma has proved promising, particularly when administered under hyperthermic conditions. The effected extremity is isolated with a tourniquet so chemotherapy can be delivered to the limb without systemic toxicity. The use of hyperthermia enhances the cytotoxic effect of the drug. Complications can be severe, including thrombosis, tissue necrosis and nerve or muscle damage; but limb salvage rates of up to 96 percent have been reported .[20]

Steroids such as Tamoxifen are being investigated for potential benefits to melanoma patients. The discovery of estrogen and progesterone receptors on some melanoma cells led to speculation that endocrine therapy may improve long-term outcomes for melanoma patients. Steroid therapies are thought to directly or indirectly inhibit tumor growth. Mechanisms of action are still not fully understood and clinical studies remain inconclusive.[21]

Exciting treatment breakthroughs have been achieved using immuno-

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***Skin Assessment**, Con't. from Page 3*
lesion changed in any way? Hold your hands out with the palms face up. Look at your palms, fingers, finger webs and forearms; turn your hands over and examine the backs of your hands, fingers, finger webs, fingernails, and forearms.

Position yourself in front of the full-length mirror. Hold up your arms, bent at the elbows, with your palms facing you. Look at the back of your forearms and elbows in the mirror. Observe the entire front of your body in the mirror. Turn your palms to face the mirror and look at your upper arms. Look at your chest, abdomen, groin area, thighs and lower legs in the mirror.

While still standing in front of the mirror, lift your arms over your head with the palms facing each other. Turn your right side to face the mirror and look at the entire side of your body-hands and arms, axillary region, sides of your trunk, thighs, and lower legs. Turn to the left and repeat the process. Look for new growths or changes in existing lesions.

Turn your back toward the mirror; look at your buttocks, backs of your thighs and lower legs. Pick up the hand-held mirror; examine the back of your neck, your back and the backs of your arms using both mirrors. Some areas are hard to see; you may find it helpful to ask your spouse or a friend to help you.

Sit and prop one leg on a chair or stool. Using the hand held mirror inspect all aspects of each leg; anterior, posterior, lateral and medial. Examine the inside of the elevated leg, beginning at the groin region and moving the mirror down your leg to your foot; repeat this procedure with your other leg. While you are still sitting, cross one leg over the other. Examine the top of your foot, your toes, toe webs, toenails and sole of your foot. Repeat this procedure with your other foot.

Examine your face and scalp. Look at your face in the mirror; pay close attention to your lips, nose, and *don't forget your ears*. A good time for women to do this is when applying moisturizers and make-up. Men can do this when they shave. Men who wear beards should not forget to inspect under facial hair. The scalp is often forgotten as part of a complete skin assessment and can be difficult to examine (unless you're bald!). Use the hand mirror, full-length mirror and hand-held blow dryer on a cool setting to help part the hair and give a good view of your scalp. Remember to check your entire scalp. You might ask your spouse, a friend or even your beautician or barber for assistance to assure a thorough scalp examination.

Remember - ***EARLY DETECTION IS THE KEY!*** UV Careful!!! Incorporate skin self-examination into your routine practice.

***Basal/Squamous**, Con't. from Pg. 4*
eyes, a predisposition to sunburn and chronic sun exposure are at higher risk for developing SCC.

SCC in sun-damaged skin appears as a round to irregular shape with a plaque-like or nodular character and erythema (redness, irritation, swelling) surrounding the lesion. Invasive SCC appears as a firm, erythematous (red, irritated, swollen), dome-shaped nodule with a core-like center that ulcerates. The tumor may be smooth or warty, is usually dull red and has telangiectasias (abnormal dilatation of capillary vessels and arterioles). SCC can be confused with other tumors, precancerous lesions and inflammatory diseases including BCC, actinic keratosis, Bowen's disease and psoriasis. Be suspicious of SCC in burn scars, chronic ulcers and lesions that consist of plaques covered with a scale, crust or ulceration.[13]

Many of the same treatments are used for BCC and SCC. Therapy is selected based on the size of the lesion, anatomic location, depth of invasion, degree of cellular differentiation (ascertained by biopsy), and history of previous skin cancer and treatment.[14] Five

Continued on Page 8 ☛

Sunscreen Tips

Apply sunscreen liberally - don't forget frequently missed spots like ears, nose and lips - opaque sunscreen like zinc oxide is recommended for bridge of nose, ears, neck and shoulders when sun exposure is lengthy

Two applications of sunscreen help provide adequate protection and picks up missed areas

Use sunscreen with an SPF of 15 - SPF 15 is adequate for the average person - Sunscreens with SPF of more than 15 have not been proven advantageous over SPF 15

Choose a broad spectrum sunscreen - it will block **UVA and UVB radiation**; UVB causes sunburn and UVA is linked to photoaging as well as increasing cancer producing effects of UVB

Use **waterproof sunscreen** when perspiring or swimming - reapply often

Do not use sunscreen on children less than six months old - infants should avoid sun exposure altogether

Limit sun exposure when taking medications that can cause photosensitivity including tetracyclines, thiazides, sulfonamides, phenothiazines, hypoglycemics and psoralens

Excerpts from *"Don't Forget the Sunscreen"* by Denis D. Hedge in the South Dakota Journal of Medicine, May 1994

Surviving..., *Continued from Page 1*
against a cancer support group; she was determined not to allow the experiences of others undermine her positive determination.

Her new attitude resulted in positive lifestyle changes. After surgery she feared circulation would be impaired in the affected leg. In addition to wearing a supportive stocking and sleeping with her leg elevated, she began walking, then jogging, while repeating a silent prayer and meditation. She continued this routine religiously. A year later she was free of peripheral edema and remains free of swelling today.

Dell's brush with death and the isolation and fear she felt as a cancer patient remained with her for a long time.

"The moment you find out you have a disease like cancer you feel you are no longer a part of the world. You are alone with your disease," Dell said.

That feeling changed during a conversation with her oncologist, who reminded her, "Cathy, everyone has a diagnosis. You just know what yours is."

After her successful treatment, Dell faced new barriers to her emotional and psychological recovery from cancer. Although she received the experimental vaccine free of charge, her treatment costs were expensive, including charges for her hospital stay, numerous diagnostic tests and travel expenses. The financial burden was compounded by incorrect charges on bills and multiple challenges to "denials" by her insurance company.

During her illness, Dell took as little time off of work as possible. Once back on the job, her employer asked her what her projected sick time would be for the following year. Through tenacity she managed to maintain her job and her insurance throughout her illness and recovery.

Dell continues the healthy lifestyle habits she began during her recovery. In addition to exercise, she takes vitamin and mineral supplements daily, including selenium, zinc, vitamins A, C and E, beta carotene and a multiple vitamin.

Despite her courageous battle with cancer, Dell possesses a certain humility about her successful transformation of mind and body. She will never look at life the way she did before her fight with melanoma and sees each day as a blessing. Asked to explain her survival, she says, "It wasn't my time to go."

Cathy Dell, RN works with the Texas Peer Assistance Program for Nurses at the Texas Nurses Foundation. She is in excellent health.

Melanoma, *Con't. from Page 5*
therapy and gene therapy. These biologic therapies stimulate the body's defenses against the neoplastic cells, resulting in tumor regression. Some of the modalities being investigated include: the use of monoclonal antibodies, a very pure form of immunoglobulin, to cause the lysis of melanoma cells; the transfer of specially-cultured lymphocytes into the patient to stimulate antitumor effects; gene therapy, involving the insertion of gene cells into the patient to halt the malignant behavior of the neoplastic cells; and tumor vaccines, produced from cloned melanoma antigens or whole melanoma cells, to stimulate the body's immune response to the tumor.[22] The development of melanoma vaccines is particularly promising, as it may lead to effective prevention of the disease in persons at high risk.

Other promising preventive therapies include the trace metal selenium, retinoids (Vitamin A and its derivatives and analogues) and carotenoids (pigments such as B-carotene, found in leafy green and yellow vegetables and canthaxanthin, found in edible mushrooms). Selenium is thought to inhibit carcinogenesis in its early stages and decrease the proliferation of neoplastic cells.[23]

As new therapies emerge for the prevention and treatment of melanoma, nurses can play a crucial role in reducing its toll on human lives. Nurses who care for melanoma's victims can be effective patient advocates by staying current on new findings and treatment modalities. *All* nurses can play an important role in prevention and early detection of melanoma by staying alert to its signs and symptoms and educating patients on the importance of prevention and screening. Together we can conquer this deadly epidemic.

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Basal/Squamous, *Con't. from Page 6*
common treatment modalities offer high cure rates for primary BCC and SCC.

Curettage and electrodesiccation uses heat to destroy tissue. Tumors are marked and anesthetized; a large curet is used to remove the tumor, scraping away abnormal tissue. The base of the wound is electrodesiccated (dried using a high-frequency electric current applied with a needle electrode) and scraped again. The base is electrodesiccated again and the process is repeated until a normal plane of tissue is reached.[15]

Surgical excision is the preferred treatment for large tumors or those with poorly defined margins on cheeks, forehead, trunk and legs. Tumors are surgically excised with a four mm margin. For SCC, a slightly larger excision should be made and the regional lymph nodes examined for presence of metastasis.[16]

Mohs micrographic surgery is surgical removal of a tumor layer by layer until all margins are free of the tumor upon microscopic examination. It is preferred for large invasive SCC and primary BCC with indistinct clinical margins, on the face, with a known high rate of recurrence or that are aggressive like morpheaform BCC.[17]

Cryosurgery destroys tissue by freezing. Liquid nitrogen is administered by spray or use of cryoprobes (blunt, chilled instruments). Cell destruction is accomplished by a rapid freeze and slow thaw cycle. This method is not appropriate for deeply invasive tumors.[18]

Radiation therapy is a viable alternative when surgical procedures are contraindicated and for elderly or debilitated patients unable to undergo surgery. Surrounding tissue is preserved and cosmetic results are good. It is administered through multiple sessions to reduce radiation related side-effects. It is not recommended for tumors on the trunk, extremities, scalp, in sweat/sebaceous glands, morpheaform BCC, verrucous SCC or tumors more than eight cm in size.[19]

Other treatments include experimental laser therapy, photodynamic therapy, use of retinoids and 5-fluorouracil (5FU) administered topically or systemically.[20]

BCC and SCC can be devastating if left untreated. The good news is, with early detection and treatment, both are highly curable. Cure rates are close to 100% for BCCs less than one cm in diameter. SCC has a higher risk of metastasis (approximately 3%), but also has high cure rates with radiation and surgical interventions (75-80%).[21]

Patients with histories of BCC or SCC should be monitored carefully through monthly self-assessments and annual or biannual clinical skin assessments. The key is to educate patients about the dangers of chronic sun exposure and warning signs of skin cancer. Emphasize use of broad spectrum sunscreens with an SPF of 15 to lower their risk of skin cancer and possibly avoid BCC and SCC altogether.

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***Actinic**, Continued from Page 3*

lesions are excised, the base should be frozen as well.[3]

Suspicious lesions should be promptly diagnosed and treated. Nurses can play a significant role in screening and assessment, alerting the public to the dangers of the sun and teaching clients to keep skin healthy. Teach your clients to inspect their skin; emphasize recognition of new lesions and changes in existing ones. Tell them to be suspicious of these lesions: 1) a new growth that bleeds, scabs, will not heal, or continues to grow; 2) a pre-existing growth/mole which begins to grow, becomes irritated, changes color, scabs, or bleeds, or 3) a new mole which continues to grow, is irregular in shape or not uniform in color.[4] If they find lesions with these characteristics, they should report these signs immediately to a health care practitioner. Early identification of skin lesions is the key to preventing unnecessary morbidity and mortality. You can make a difference!

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NOTES:

POST TEST - Skin Cancer: The Growing Epidemic

Instructions: Choose one best answer and shade in circle on corresponding answer sheet.

1. The *primary* cause of increasing numbers of adolescents and young adults becoming victims of Melanoma is:
   a. Decreased number of Nevi on the body.
   b. Decreased number of youth using protective measures from the sun.
   c. Increased exposure to the sun's ultraviolet radiation.
   d. Increased use of radiotherapy for skin lesions.

2. All of the following are signs of Malignant Melanoma *except*:
   a. lesions that are symmetrical in shape.
   b. lesions that are asymmetrical in shape.
   c. lesions with notched or poorly defines borders.
   d. lesions with tan, brown, blue, red or white areas in any combination.

3. Which of the following assessment findings would you *most likely* expect in a patient with skin cancer?
   a. an abdominal skin lesion.
   b. sudden or progressive change in a mole's appearance.
   c. thin, scaly, rough, red lesions on the face and hands.
   d. round, evenly colored lesion less than 5 mm in size, with well-defined borders.

4. All of the following are skin cancer risk factors *except*:
   a. fair, freckled complexion.
   b. closeness to the equator.
   c. dark complexion.
   d. chemical exposure including creosote, coal pitch, tar, arsenic and cutting oils.

5. Which of the following is characteristic of superficial spreading Melanoma?
   a. large, tan, raised lesion with a notched border.
   b. raised, dome-shaped, blue-black or red nodule with clearly defined borders.
   c. flat lesion in a variety of colors and with a fine crust or scaly surface with notched border.
   d. develops on non-hair-bearing skin, such as soles of feet, nail beds and mucous membranes.

6. Which of the following is characteristic of Squamous Cell Carcinoma?
   a. round to irregular shape with a plaque-like or nodular character and erythema surrounding the lesion.
   b. thin, scaly, rough, red lesions.
   c. raised, dome-shaped, blue-black or red nodule with clearly defined borders.
   d. flat or depressed sclerotic yellow or white plaque with an ill-defined border.

7. When teaching the patient about adverse effects of the sun on the skin, all of the following measures should be taught *except*:
   a. use sunscreen with SPF 45 and that protects against UVA radiation only.
   b. use sunscreen with SPF 15 and that protects against broad-spectrum radiation.
   c. wear a hat, long sleeves and pants of close-knit fabric.
   d. apply sunscreen even on cloudy days.

8. Which of the following is characteristic of Basal Cell Carcinoma?
   a. small pearly nodule resembling a smooth pimple that fails to heal.
   b. flat lesion with a fine crust or scaly, surface with notched border.
   c. raised, dome-shaped, blue-black or red nodule with clearly defined borders.
   d. ulcerated lesion with variegated colors and shades of blue and black.

9. Which of the following is characteristic of Actinic Keratosis?
   a. round, evenly colored lesion less than 5 mm in size with well-defined borders.
   b. raised, dark brown to black, oval or round nevi with coarse hair.
   c. thin, scaly, rough, and sometimes red lesions most frequently occurring on the face, hands and feet.
   d. small pearly nodule resembling a smooth pimple that fails to heal.

10. Patients should be taught that all of the following medications cause photosensitivity *except*:
   a. tetracylines
   b. sulfonamides
   c. hypoglycemics
   d. antiinflammatory agents

11. The *most* important question to teach the patient to ask when performing a skin self-examination is:
   a. What medications have I taken to cause photosensitivity?
   b. Has this lesion changed in any way?
   c. How long was I exposed to the sun?
   d. Have I used a broad spectrum sunscreen?

12. Tools for accomplishing a skin self-assessment include all of the following *except*
   a. natural sunlit area
   b. fluorescent lighting
   c. hand-held blow dryer
   d. hand-held mirror

13. The *most* common form of skin cancer is:
   a. Squamous Cell Carcinoma
   b. Actinic Keratosis
   c. Basal cell Carcinoma
   d. Melanoma

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- Identify risk factors and incidence of malignant melanoma
- Describe the characteristics of malignant melanoma
- Describe skin self-examination/assessment
- Describe signs, symptoms and risk factors of skin cancer
- Describe characteristics of actinic keratosis
- Identify risk factors and incidence of basal cell and squamous cell carcinomas
- Describe characteristics of basal cell carcinoma
- Describe characteristics of squamous cell carcinoma

Don't overlook the largest organ of the body!

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