

Your Treatment Options for Skin Cancer

Author: Tri H Nguyen MD, FAAD, FACMS, FACPh

For smaller, superficial, less aggressive skin cancers

Options in this category include:

- Topical therapy
- Photodynamic therapy (PDT)
- Electrodesiccation and curettage (EDC)
- Cryotherapy
- Injection therapy

These therapies have in common the following:

1. A biopsy and pathology reading are helpful in determining which therapy is recommended.
2. Appropriate for shallower, less aggressive skin cancers.
3. Destruction of skin cancer tissue (either physical and or chemical) and surrounding skin.
4. Outpatient nature. Local anesthesia may or may not be used.
5. Creation of wounds that require time to heal.
6. There is no tissue sent for pathology examination.

Topical therapy

If your skin cancer is confined to only the top layers of the skin (determined by a biopsy), then topical therapy may be appropriate. These superficial cancers include some squamous cell cancers in-situ (squamous cell cancer in-situ is also known as Bowens disease) and superficial basal cell cancers. In-situ means a lesion is confined to the epidermis, the top layer of skin. Imiquimod (IMQ) and or 5-fluorouracil (5FU) are two such topical creams for skin cancers.

How it works:

IMQ works by stimulating your body's own immune system to destroy cancerous cells (topical *immunotherapy*). 5FU works as a topical *chemotherapy*, preventing rapidly dividing cells from growing. Both creams cause significant redness and inflammation and need to be used for many weeks to be effective. Occasionally, these creams may be recommended in addition to surgery for maximal success.



Skin reaction during topical therapy for superficial skin cancer. Note the selective response as only skin cancer and precancerous cells are reacting.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379



Benefits (Topical Therapy-continued):

The advantage of topical treatment is the relative lack of scarring. Treated skin is less sun-damaged in appearance and nearby precancers are also treated as well. Topical therapy is not appropriate for more aggressive skin cancers.



Disadvantages:

Your skin may look red, raw, and inflamed for the duration of treatment. This may prevent you from appearing in public or attending important events. If you do not follow the wound care prescribed, then your skin may develop itching, burning, infections, and pain. This treatment is usually avoided in the hot summer months because of potential discomfort (heat and humidity) and light/sun sensitivity.

Photodynamic therapy (PDT)

How it works:

PDT applies a chemical (photosensitizer: photo (light) sensitizer) that sensitizes your skin to light. Cancerous skin treated with this photosensitizer is then exposed to various light sources, which causes a destructive reaction similar to a bad sunburn. Your skin remains light-sensitive for 24-48 hours and healing occurs over the next several days to a week. Several sessions of PDT may be needed to treat the skin cancer.

Benefits:

Similar to topical therapy

Disadvantages:

Your skin is extremely light sensitive and vigorous sun avoidance is essential to prevent a blistering burn. The treatment can also be painful and pain medications may be needed. Multiple visits may be needed. Otherwise, the disadvantages of PDT are similar to topical therapy.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379

Electrodessication and Curettage (EDC)

How it works:

Otherwise known as “scraping and burning”, EDC uses a scraping instrument (curette) and electric currents (electrodessication) to destroy and burn your skin cancer under local anesthesia. The cancer lesion and a rim of surrounding skin (safety margin) are treated. Several passes are performed. This results in a shallow wound that heals by itself after several weeks.



Typical scar appearance from EDC

Benefits:

EDC is a relatively quick (10-20 minutes) outpatient procedure that is effective for small and superficial skin cancers (determined by a biopsy). The curette allows a physician to “feel” the extent of skin cancer involvement, as skin cancer tissue may be relatively friable and easily scraped compared to normal skin. It is convenient for both the physician and the patient. Since there are no stitches, there is less activity restriction than with other surgeries.

Disadvantages:

More than most techniques for skin cancer, the effectiveness of EDC greatly depends on the physician’s experience. A wound from EDC may take many weeks to heal depending on the wound’s size, depth, and location. During that time, the patient needs to perform wound care. The scar that results from EDC is often white in color, shiny, and occasionally thick to touch, which may or may not be a problem depending on location and personal preferences.

Cryotherapy

Cryotherapy uses liquid nitrogen (nitrogen gas that has been cooled to become a liquid) to freeze and destroy skin lesions (benign growths, actinic keratosis (precancers), and skin cancers).

How it works:

With or without local anesthesia, the skin cancer and a rim of surrounding skin (safety margin) are sprayed with liquid nitrogen to freeze the tissue. If sprayed long enough, the freeze will not only involve the top skin layer but also the tissue underneath. The tissue is then allowed to thaw and additional freeze-thaw passes may be repeated. Cryotherapy is typically performed harder and longer for skin cancers than it is for other lesions. The freezing, plus the body’s immune response to the injury results in a blistered wound that then takes several weeks to heal.



Early basal cell cancer being destroyed with liquid nitrogen.

Benefits:

Cryotherapy may be performed effectively for more invasive skin cancers in patients who cannot undergo surgery. The equipment needs are minimal and it is a quick and convenient procedure.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A, Spring, Texas. 77379



Disadvantages (Cryotherapy):

The effectiveness of cryotherapy is highly operator dependent and there are many technical variables, such as; 1) type of device used for freezing, 2) intensity of freezing (time to freeze and duration of freeze, and 3) number of freeze-thaw cycles. Cryotherapy can potentially penetrate deeper tissues. As a result, if freezing occurs over thin skin, over joints, or in hair bearing areas, then deep wounds, nerve injury, and hair loss may occur respectively. Cryotherapy leaves porcelain white scars because the freezing also destroys melanocytes (pigment producing cells in the skin). Otherwise, the disadvantages of cryotherapy are similar to EDC.

Injection therapy

A number of medications may be injected into the skin to treat skin cancers. The most commonly used is Interferon (IFN). Multiple injection visits are usually required.

How it works:

Interferon works by stimulating your body's immune response to destroy skin cancer tissue. The destruction is relatively specific and healthy tissue is usually spared (minimal collateral damage). The tumor progressively shrinks. Redness, inflammation, and flu-like symptoms may occur as part of the immune system response. A series of IFN injections requires 3 visits per week for 3 weeks (9 injections total). Several series at several months apart may be needed for maximum success (depending on the size of your skin cancer).

Benefits:

Interferon injections are usually well tolerated and usually not painful. Injection therapy is helpful for patients who cannot undergo surgery, or in cases in which surgery would likely leave an unacceptable scar. Usually, there is minimal scarring after injection therapy (especially IFN). The treated skin, however, may be lighter in color than the surrounding skin. For properly selected tumors, the cure rate may be exceptional. Injection therapy may be used as a complement to surgery. Prior to surgery, several series of injections may be performed to shrink the tumor as much as possible. Surgery may then follow to remove a skin cancer that is now much smaller than before.

Disadvantages:

The number of visits required is inconvenient for many patients. The medicines are expensive and not always covered by insurance. The flu-like symptoms may be troublesome but only rarely are they debilitating.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379



For larger, deeper, more aggressive skin cancers

These therapies are typically more involved (i.e. more expertise, more visits, more recovery, more cost, more tissue changes, etc) and penetrate deeper into the skin (more invasive). Such options include:

- Wide local excision (WLE)
- WLE with intraoperative frozen sections (WLE with IOFS)
- Mohs micrographic surgery (MMS)
- Radiation therapy (RT)

These therapies have in common the following:

1. A biopsy and pathology reading are helpful in determining which therapy is recommended.
2. With the exception of radiation therapy, the treatments in this category involve the surgical removal of skin cancer tissue with a safety margin of surrounding skin.
3. In general, deeper wounds result from surgical therapy than for non-surgical options. These wounds may or may not require reconstructive surgery (repair of wound with stitches and other techniques) for optimal healing. The repair of these wounds may require some activity restrictions and follow-up.
4. With the exception of radiation therapy, various methods are used to examine the borders of the tissue removed (margin control) for tumor clearance. Not all methods of margin control are equally effective.
5. Either local anesthesia or general anesthesia may be needed depending on the surgery recommended. Radiation therapy does not require anesthesia.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379

Wide local excision (WLE)

How it works:

Your skin cancer is surgically removed with a safety margin, either under local or general anesthesia. The more aggressive the skin cancer, the larger the safety margin is taken to increase your chances of complete cancer removal. After cancer removal, your surgeon may stitch or suture the wound closed



and wait for the pathology results (sometimes a wound is allowed to remain open). The tissue is sent to a lab and examined by a pathologist. Usually, the results are not known until several days later. If there is still cancer remaining (positive margin), then the wound may need to be opened and additional surgery is performed until the margins are clear of cancer. For the additional surgery, your doctor may either recommend the same technique (WLE) or an alternative method (Mohs micrographic surgery or WLE with IOFS).

Football shaped design includes skin cancer (in center circle) and safety margin (outer circle). Dotted lines outline the extent of local anesthesia needed.

Benefits:

WLE is one of the most common methods of skin cancer removal. It may remove deeper tissue (skin, fat), which may be indicated for more aggressive skin cancers. Usually, muscle is not removed unless needed. WLE yields tissue for pathology examination (margin control) and allows further study of the skin cancer if needed. The tissue is processed as paraffin sections, which are considered the "gold standard" in that the best tissue quality and details may be seen. The wound is usually stitched (reconstructed) and there is faster healing. Cosmetic appearance of a repaired wound may be very good.

Disadvantages:

The safety margin that needed for skin cancer removal depends on many factors (location, skin cancer type, aggressiveness, etc). If the pathology results reveal residual skin cancer (occurs in less than 10% of cases), then the patient may need additional surgery that adds to the recovery and cost. Rarely, the margin may be negative (clear of cancer) but the cancer may still recur (come back). This occurs because the pathology evaluation samples only a small portion of the removed skin. For most skin cancers, this limited sampling is not an issue. For more aggressive skin cancers, however, roots of skin cancer may be missed and the skin cancer then recurs. Recurrent skin cancers are usually more difficult to treat.

If there was stitching, then these stitches may need to be removed and there are usually activity restrictions during the short-term. Operated skin is never as strong as normal skin and it requires many months for complete healing (six months to a year may be needed for final outcome, but patients are functional long before that). Complications of any surgery may include but are not limited to- infection, bleeding, nerve damage, loss of function, and suboptimal scarring. If there was general anesthesia for the WLE, then there is additional recovery, cost, and risks involved. Most patients who undergo general anesthesia, however, do well.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379



Wide Local Excision with Intraoperative Frozen Sections

How it works:

Under sedation or general anesthesia, the surgeon removes cancer tissue with variable safety margins (similar to WLE). Unlike WLE, however, the pathology evaluation occurs during the surgery (Intraoperative frozen sections (IOFS)) by a pathologist. Results are known quickly with frozen sections (tissue that is rapidly frozen and processed). The surgeon removes additional tissue based on the frozen section readings of the pathologist. After the frozen sections are all negative (clear of cancer), then either the cancer surgeon or another physician (reconstructive surgeon) repairs the wound. For additional confirmation, part of the tissue that was examined as frozen sections are sometimes processed as paraffin sections and re-evaluated.

Benefits:

The frozen sections performed during the surgery yields quick results. Additional tissue may be removed without the need for separate visits. This gives your physician the ability to repair the wound with relative confidence that the margins are negative. Other benefits are similar to WLE.

Disadvantages:

Because of the rapid processing, frozen sections with WLE do not have the same quality and detail as paraffin sections ("gold standard"). As a result, some tumors may not be seen well. Rarely, the tissue that is sent for final confirmation after frozen sections show cancer that was missed. Additional surgery is then required. The tissue sampling in WLE with IOFS is also limited and not all of the margins are looked at. WLE with IOFS is typically much more expensive than with WLE alone. There are multiple factors that must be coordinated (the cancer surgeon, the operating room, the anesthesiologist, the pathologist, and the reconstructive surgeon if applicable).

Mohs Micrographic Surgery (MMS)

How it works:

Under local anesthesia, the Mohs surgeon removes the cancer tissue and processes it as modified frozen sections. These modified frozen sections are unique in that 1) the tissue quality and detail are excellent, closely resembling paraffin sections and 2) virtually 100% of the margins are examined, thereby reducing the chance for missing skin cancer roots. Modified Mohs frozen sections are processed within the Mohs unit and results are generally available within 20-60 minutes. The Mohs surgeon examines the frozen sections and more tissue is removed only where needed. When all margins are clear, then the wound is repaired (usually in the same day). Rarely, the wound cannot be reconstructed immediately and the patient is referred to another specialist for repair. The Mohs surgeon serves many roles. He/she is the cancer surgeon, the pathologist, and the reconstructive surgeon-all in one.

On the surface, MMS appears to resemble WLE with IOFS. The two techniques, however, are very different as seen in the table below.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379

Table 1: Comparison between Wide Local Excision and Mohs Surgery

	Wide local excision with Intraoperative Frozen Sections (WLE with IOFS)	Mohs Micrographic Surgery (MMS)
Tissue removed	Safety margins are removed deep and wide to ensure cancer is completely removed.	Tumor tissue is removed with a minimum of surrounding tissue. Traditional safety margins are not used in Mohs surgery. In general, MMS removes at least 100-200% less tissue than WLE.
Tissue processing	Frozen sections	Modified frozen sections that closely resemble paraffin sections in quality and detail.
Margin evaluation	Multiple samplings of the tissue margins.	Virtually 100% or nearly all of the tissue borders are examined for tumor
Physician examining the pathology	A surgeon removes the cancer tissue and a pathologist examines that tissue under the microscope.	The Mohs surgeon is both the cancer surgeon and also the pathologist who examines the tissue. This permits excellent correlation between what is seen on the skin and what is seen under the microscope.

Benefits (Mohs Surgery):

MMS is considered an excellent option for many skin cancers (but not all) because of its maximal cure rate, sparing of healthy tissue, and safety. The Mohs procedure occurs under local anesthesia, which is generally the safest for most patients. Because of the completeness of tissue examination and correlation, MMS has the best chance of detecting skin cancer roots compared to WLE and WLE with IOFS. The defect from MMS is usually the smallest possible as only cancer involved skin is removed. The smallest wound usually translates into the smallest scar and faster healing. For additional details on Mohs Surgery, please click <http://mohsdermhouston.com/surgical-dermatology/mohs-micrographic-surgery/>

Disadvantages (Mohs Surgery):

Despite its many advantages, Mohs surgery should not be applied for every skin cancer. The meticulous nature of Mohs surgery is time intensive. It also requires expertly trained physicians who can function as both surgeons and pathologists. Depending on the cancer, one tumor may require several hours to an entire day to clear and repair. Some cancers are not accurately seen with the frozen sections in Mohs surgery. Others are too large or are inaccessible with outpatient techniques. While local anesthesia is sufficient for most Mohs patients, others may require general anesthesia (Mohs surgery is routinely not done with general anesthesia). Finally, cancers that have already spread to lymph glands or elsewhere are not treatable with this technique.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379



Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A. Spring, Texas. 77379



Radiation Therapy (RT)

How it works:

RT utilizes high-energy photons (x-rays) to destroy tissue. Rapidly dividing cells (cancer tissue) are more susceptible to RT but some nearby tissue is also affected. The RT targets the tumor site as well as a surrounding safety margin (radiation field = tumor site + safety margin). Shields are custom fabricated to protect as much of the non-targeted tissue as possible. Depending on the radiation dosage, several visits per week for many weeks are needed. RT is often "fractionated", meaning that the total radiation dose is divided into multiple smaller doses. This fractionation not only enhances tumor destruction but also minimizes damage to healthy tissue.

Benefits:

Depending on the device and technique, RT may be tailored to be superficial or deeply penetrating. Therefore, a variety of tumors may be treated. Properly performed, RT can achieve both high cure rates and a very good cosmetic outcome. RT may be used as primary therapy in patients who cannot undergo surgery or if there are multiple lesions within one region. It is an excellent alternative to surgery when the operation itself may be too deforming or high-risk to the patient. RT may be used after surgery (postoperative adjuvant radiation) for very high-risk skin cancers (lymph node involvement, nerve involvement) to increase chances for tumor control. For patients who have persistently positive margins (residual cancer in tissue) despite surgery, RT may also be a good option. RT may be combined with chemotherapy (chemoradiation) for advanced tumors.

Disadvantages:

RT relies on precise photon delivery and dosing for effectiveness. The radiation techniques may vary significantly among different institutions. There is no tissue submitted for margin examination and effectiveness depends on the sensitivity of the tumor, the radiation dose, and penetration. Acute (short-term) and chronic (long-term) radiation dermatitis may become problems. Acutely, weeping wounds, blisters, pain, and burn-like reactions require intense wound care for healing. There is a 6-12 month delay (to allow for healing) before the effectiveness of radiation may be determined. Chronically, radiated skin is thinner, smoother, fibrotic (scar-like), and lighter in color. There is permanent hair loss and there is difficulty healing if the treated skin is injured. Rare complications may include necrosis of bone, contraction of structures, and secondary cancers may develop within fields of radiation. The risk of radiation-induced cancers is rare and usually does not occur until 20 years or more after radiation. As a result, radiation is usually not the first choice to treat skin cancers in younger patients.

Experience the Excellence in Dermatology

P: 832-663-6566 F: 832-663-6550

www.tsderm.com

21009 Kuykendahl Rd, Suite A, Spring, Texas. 77379

Cáncer de piel

Información acerca del cáncer de piel

El cáncer de piel es el cáncer más común en los Estados Unidos. Cada año, se diagnostican mas de 1 millón de casos y según las estimaciones actuales, 40 a 50 por ciento de los norteamericanos que viven hasta los 65 años de edad tendrán cáncer de piel por lo menos una vez. Para permanecer saludable, es esencial conocer las características de los tipos más comunes de cáncer de piel. La detección y el diagnóstico precoz son cruciales.

¿Cuáles son los tipos de cáncer de piel?

Actinic Keratosis

Actinic keratosis, o solar keratosis, es una condición precancerosa que tiene el potencial de convertirse en carcinoma de células escamosas (squamous cell carcinoma). Tiene la apariencia de parches ásperos, color café o rojo y escamosos. Usualmente es más fácil palparlos que verlos. Como el cáncer de la piel, usualmente se encuentra en las áreas de la piel que están expuestas al sol, pero también se pueden encontrar en otras áreas del cuerpo.



Actinic Keratosis

Basal Cell Carcinoma, Cáncer de células basales

El carcinoma de células basales es más del 90 por ciento de todos los tipos de cáncer de piel. Se ve como un bulto pequeño, de color rosa en la cabeza o en el cuello, o también se puede encontrar en cualquier parte del cuerpo. Si no se trata, se puede ulcerar, sangrar o formar una costra. El cáncer de células basales crece lentamente y usualmente no se disemina a otras partes del cuerpo. Sin embargo, si se deja sin tratar, puede diseminarse a las áreas circundantes e invadir el hueso y otros tejidos subcutáneos. Una persona que tiene cáncer de células basales corre el riesgo de contraer el cáncer nuevamente, en el mismo lugar o de contraer uno nuevo en algún otro lugar del cuerpo.



Basal Cell Carcinoma

Squamous Cell Carcinoma, Cáncer de células escamosas

El carcinoma de células escamosas puede parecerse al de células basales, pero usualmente tiene más escamas y es más áspero. Este tipo de cáncer se encuentra usualmente en la cabeza o el cuello pero tiene tendencia a crecer en las orejas, labios y la parte posterior de los brazos y las manos. También se puede desarrollar en otras partes de la piel como cicatrices o ulceras. El carcinoma de células escamosas puede ser más agresivo que el de células basales y es más posible que crezca profundamente debajo de la piel y que



Squamous Cell Carcinoma

Spanish translation of Skin Cancer

Adapted from NCI's What You Need to Know About™ Skin Cancer

© 2004, 2006 The University of Texas M. D. Anderson Cancer Center, Revised 03/31/06
Patient Education Office

se disemine a otras partes distantes del cuerpo. Si se trata temprano, sin embargo, es posible curar este tipo de cáncer. El carcinoma de células escamosas es el cáncer de piel más común en los receptores de trasplante de órganos.

Malignant Melanoma, melanoma maligno

El melanoma maligno es menos común que el carcinoma de células escamosas o basales, pero es más peligroso. Usualmente aparece como un lunar irregular, color café, negro o rojo. Este lunar puede cambiar. Entre los hombres caucásicos, el melanoma aparece mas frecuentemente en el tronco, y entre las mujeres caucásicas se encuentra mas frecuentemente en la parte inferior de la pierna. Entre las personas de raza negra, a pesar de que el melanoma es raro, aparece con mas frecuencia en las palmas de la mano, las plantas del pie, y la piel debajo de las uñas. Si se detecta temprano, puede curarse.



Malignant Melanoma

¿Cuáles son los factores de riesgo?

Usted puede correr un riesgo mas elevado de contraer el cáncer de piel si usted:

- Ha estado expuesto a cantidades excesivas y en forma desprotegida a la luz natural del sol (por ejemplo, obreros de la construcción, granjeros, gente que toma sol, y aquellos que practican muchos deportes al aire libre) y luz solar artificial (por ejemplo, camas solares, lámparas solares). La mayoría de los casos de cáncer de piel aparecen después de los 50 años de edad, pero los efectos dañinos del sol comienzan a edad temprana (por ejemplo, quemaduras severas de sol antes de cumplir los 18 años de edad).
- Tiene piel blanca, ojos de color azul, verde o avellana, tiene cabello rubio o pelirrojo y/o muchas pecas.
- Tiene lunares múltiples o que se ven inusuales (por ejemplo nevii displásicos). Los **nevii displásicos** son los lunares cuya apariencia es diferente de la de los lunares comunes. Generalmente son mayores en tamaño que los lunares ordinarios y tienen bordes irregulares e indistintos. Frecuentemente los colores no son uniformes y varían de rosa a café oscuro; usualmente son chatos pero pueden tener partes elevadas sobre la superficie de la piel. Los médicos creen que los nevii displásicos tienen mas probabilidades de convertirse en melanoma que los lunares ordinarios.
- Tiene historia familiar o personal de cáncer de piel.
- Ha estado inmunosuprimido especialmente después de un trasplante de órgano.
- Trabaja con carbón de alquitrán, compuestos de arsénico, creosota, brea o aceite de parafina.
- Tiene sitios de la piel con trauma como cicatrices o quemaduras severas.
- Ha estado expuesto a cantidades excesivas de radium o de rayos x.
- Vive en lugares con climas soleados y/o áreas montañosas.

¿Cómo se puede prevenir el cáncer de piel?

Hay muchas maneras de prevenir el cáncer de piel. Estas incluyen:

- Permanezca adentro o evite la exposición innecesaria al sol, especialmente entre las 10:00 y las 16:00, cuando los rayos solares son más fuertes. Cuando esté al aire libre, recuerde que cuanto más pequeña es su sombra, más dañinos son los rayos solares.
- Use un filtro solar con un factor de protección (*Sun Protection Factor, SPF*) de 15 o más dependiendo del tipo de su piel. Siempre debe usar un filtro solar que proteja contra los rayos UVA y UVB.
- Aplique el filtro solar como parte de su rutina diaria. Aplique generosamente para lograr la protección máxima, especialmente en las partes del cuerpo que se olvidan fácilmente, como los labios, la parte superior de las orejas, cabeza, la nuca, y la parte posterior de las manos y los pies. Para mas información, pida a su proveedor de salud que le entregue una copia del folleto titulado “Filtros solares y protección contra el sol: instrucciones para los pacientes del Cancer Prevention Center”.
- Aplique el filtro solar 30 minutos antes de exponerse al sol.
 - **Sweat Resistant, resistente al sudor:** Si usted suda, estará protegido hasta 30 minutos. Vuelva a aplicar después de los 30 minutos.
 - **Water-resistant, resistente al agua:** Durante la exposición continua al agua, usted estará protegido hasta 40 minutos. Vuelva a aplicar después de los 40 minutos.
 - **Waterproof, a prueba de agua:** Protege el doble que el anterior (hasta 80 minutos); vuelva a aplicar a los 80 minutos.
- Use ropa protectora (por ejemplo, sombreros de ala ancha, pantalones y camisas de manga larga, gafas con protección UV).
- Evite las superficies reflectoras, como el agua, arena, nieve y cemento. Permanezca en la sombra.
- Cuídese de los días nublados. Se puede quemar igual.
- No use lámparas o camas solares.

¿Por qué es tan importante la detección precoz y el tratamiento del cáncer de piel?

El índice de curación para el cáncer de piel cuando se trata antes de que se haya diseminado es alto. Es por ello que se recomiendan las siguientes medidas protectoras para mantener una piel saludable.



Exámen de la Piel

Spanish translation of Skin Cancer

Adapted from NCI's What You Need to Know About™ Skin Cancer

© 2004, 2006 The University of Texas M. D. Anderson Cancer Center, Revised 03/31/06
Patient Education Office

Exámenes de la piel

- Sepa sus **ABCDEF de lunares**.
 - Asimetría: ¿Una de las mitades del lunar (o de la mancha pigmentada de la piel) se ve diferente de la otra mitad?
 - Borde: ¿El borde es irregular o mal definido?
 - Color: ¿Es el color diferente en una parte del lunar (varios colores o diferentes tonos del mismo color) o ha cambiado a través del tiempo?
 - Diámetro: ¿Es el lunar de tamaño mayor que el borrador en el extremo de un lápiz?
 - Elevación: ¿Ha cambiado la superficie del lunar? Si era chato y homogéneo, ¿esta elevado ahora?
 - Feeling o sensación: ¿Ha cambiado la sensación alrededor del lunar? ¿Hay escozor o dolor?
- Realice un examen completo de piel todos los meses, frente al espejo, en privacidad completa y completamente desvestido (como antes o después del baño diario) con luz natural o una buena luz artificial.
 - Comience con la cabeza, cuero cabelludo y cara, continúe en forma ordenada hacia abajo en todo su cuerpo, por el frente y por detrás. Es importante detectar cambios o crecimientos nuevos, incluyendo manchas de color rosa, crecimientos escamosos, áreas sangrantes o lunares que hayan cambiado. Un ser querido puede ayudarle a examinar su espalda y cuero cabelludo.
 - Doble los codos y fíjese cuidadosamente en las palmas de las manos, antebrazos incluyendo la parte inferior y la parte superior de los brazos.
 - Examine la parte posterior y anterior de las piernas. Fíjese entre los glúteos y alrededor del área genital.
 - Tome asiento y examine cuidadosamente los pies, incluyendo las plantas y los espacios entre los dedos de los pies.
 - Realícese un examen completo de la piel con un médico todos los años. El médico debe realizarlo durante su examen anual. Un dermatólogo, un médico especialista en diagnosticar y tratar enfermedades de la piel, puede realizar este examen.
- Si usted **ya ha tenido** cáncer de piel:
 - Sienta los dos lados del cuello, axilas e ingles para bultos nuevos que puedan ser ganglios linfáticos agrandados.
 - Realícese el examen de piel con un médico mas a menudo que una vez al año. Los dermatólogos y los cirujanos dermatólogos, que son los especialistas en cáncer de piel pueden diagnosticar y tratar el cáncer de piel en un estadio temprano. Consulte con su médico para saber cuan a menudo debe usted realizarse estos exámenes de piel.

¿Hay algún otro recurso que me pueda dar mas información acerca del cáncer de piel?

Para mas información acerca del M. D. Anderson Cancer Center y el tratamiento para el cáncer de piel, puede llamar a la Information Line al numero (713) 792-6161 o 1-800-392-1611. Nuestro sitio web es <http://www.mdanderson.org/>

Para mas información acerca del cáncer de piel, puede llamar al Cancer Information Service del National Cancer Institute (NCI) al numero de llamada gratuita dentro de los EE.UU. 1-800-422-6237, de lunes a viernes de 9:00 a 16:00. Hay especialistas entrenados en información del cáncer que pueden contestar sus preguntas en español y en inglés. El sitio web es <http://www.cancer.gov/cancerinformation>

Puede llamar también al numero de llamada gratuita dentro de los EE.UU. de la American Cancer Society: 1-800-227-2345 o el numero listado en el directorio telefónico local bajo “American Cancer Society”. El sitio web es <http://www.cancer.org/>