The Integumentary System

"Disorders, Conditions, and Diseases"

Definitions

- Disease- an abnormal condition of the body or the mind that causes dysfunction or discomfort.
- Disorder- a functional abnormality, or disturbance.
- Condition- a state of being, in health, a disease, such as a heart condition.

Acne Vulgaris

- Acne vulgaris is a common skin disease that affects 85-100% of people at some time during their lives.
- It is characterized by non-inflammatory pustules or comedones, and by inflammatory pustules, and nodules in its more severe forms.
- Acne vulgaris affects the areas of skin with the densest population of sebaceous follicles; these areas include the face, the upper part of the chest, and the back.
- Treatment is a regimine of topical creams, and oral antibiotics, and or steroids.







Psoriasis

- It can appear anywhere on the body, but it is most commonly found on the elbows, knees, scalp, and lower back.
- Skin typically becomes red and inflamed and may form white scaly patches.
- It can be quite painful and may itch, crack, and bleed.
- While psoriasis may look like just a skin disease, it is in fact a disease of the immune system.



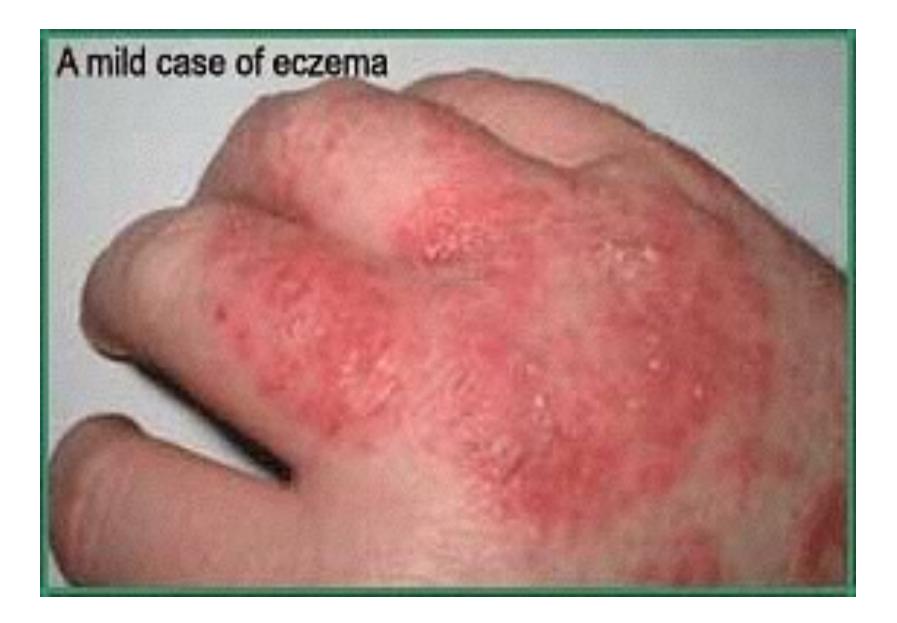




Eczema

- Eczema most commonly causes dry, reddened skin that itches or burns, although the appearance of eczema varies from person to person and varies according to the specific type of eczema.
- Intense itching is generally the first symptom in most people with eczema.
- Sometimes, eczema may lead to blisters and oozing lesions, but eczema can also result in dry and scaly skin.
- Repeated scratching may lead to thickened, crusty skin.







Contact Dermatitis

- The word "dermatitis" means inflammation of the skin.
- In contact dermatitis, the skin becomes extremely itchy and inflamed, causing redness, swelling, cracking, weeping, crusting, and scaling.
- Dry skin is a very common complaint and an underlying cause of some of the typical <u>rash</u> symptoms.
- This is usually occupationally related: hair stylists, medical personnel, photographers, etc.





Tinea Pedis- Athletes' Foot

- Athlete's foot is a very common skin infection of the foot caused by fungus.
- When the feet or other areas of the body stay moist, warm, and irritated, this fungus can thrive and infect the upper layer of the skin..
- Athlete's foot is caused by the <u>ringworm</u> fungus ("tinea" in medical jargon). Athlete's foot is also called tinea pedis. The fungus that causes athlete's foot can be found on many locations, including floors in gyms, locker rooms, <u>swimming</u> pools, nail salons, and in socks and clothing.
- The fungus can also be spread directly from person to person or by contact with these objects.







Urticaria

- Hives (medically known as urticaria) are red, itchy, raised areas of skin that appear in varying shapes and sizes.
- They range in size from a few millimeters to several inches in diameter.
- Hives can be round, or they can form rings or large patches.
- Wheals (welts), red lesions with a red "flare" at the borders, are another manifestation of hives.
- Hives can occur anywhere on the body, such as the trunk, arms, and legs.





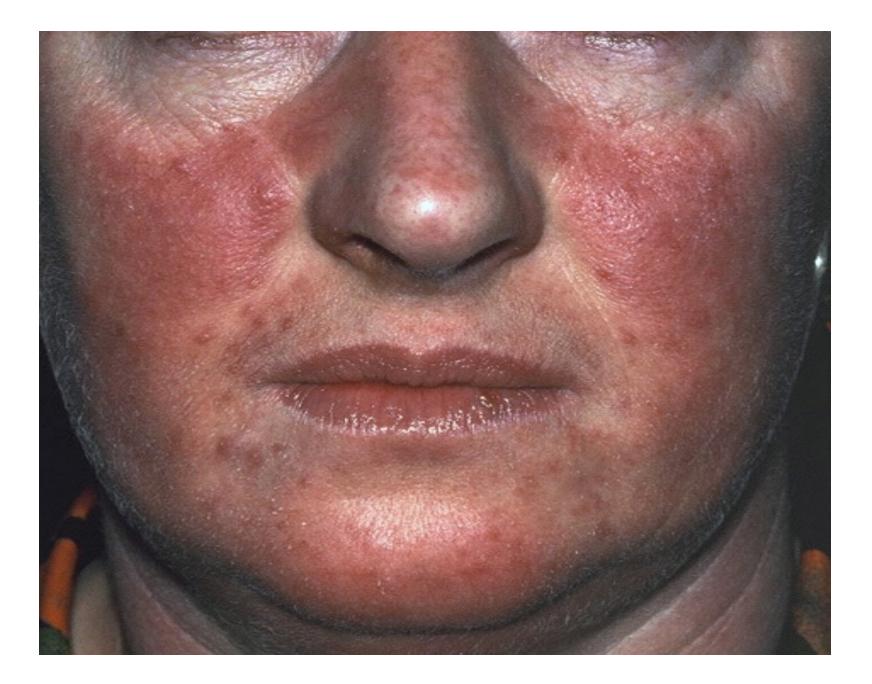


Rosacea

- Rosacea (roz-ay-sha) is a very common benign skin disorder that affects many people worldwide.
- As of 2008, it is estimated to affect at least 14 million people in the United States alone.
- The main symptoms of this facial condition include red or pink patches, visible broken blood vessels, small red bumps, red <u>cysts</u>, and pink or irritated eyes.
- Many patients may just assume they blush easily or have gotten sunburned.

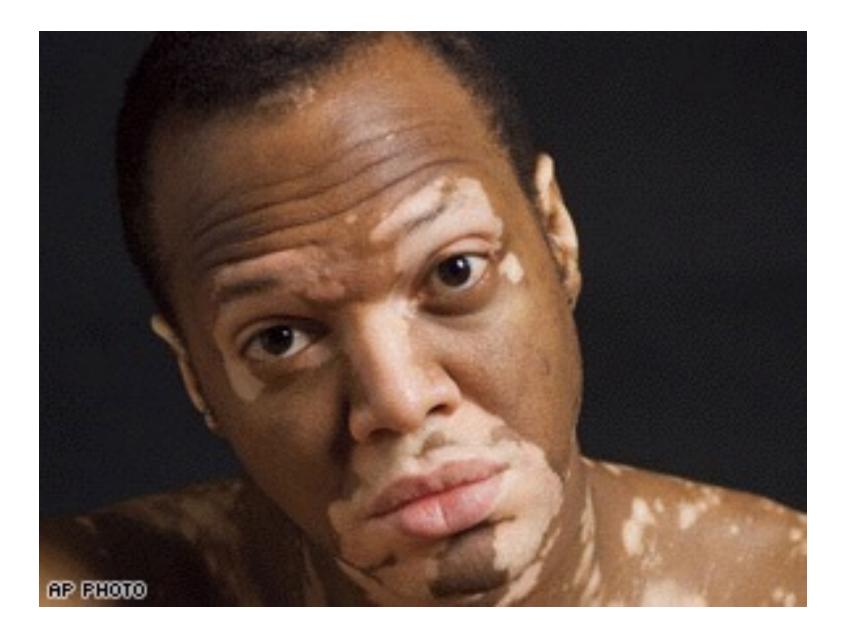






Vitiligo

- Vitiligo (vit-ill-EYE-go) is a pigmentation disorder in which melanocytes (the cells that make pigment) in the skin are destroyed. As a result, white patches appear on the skin in different parts of the body.
- Similar patches also appear on both the mucous membranes (tissues that line the inside of the mouth and nose), and the retina (inner layer of the eyeball).
- The hair that grows on areas affected by vitiligo sometimes turns white.





Impetigo

- Impetigo is a skin infection that can spread from one person to another.
- Impetigo causes one or more "sores" on the skin that are often covered by a thick dry honey-colored crust. The sores don't hurt, but may be tender if touched. They may also be itchy.
- Any skin area can be affected, but sores are usually on arms or legs, the face (mainly around the mouth, nose, or ears), and sometimes on the scalp. Anyone can get impetigo, but it most often occurs in children 2 to 6 years old.
- The disease is most common during summer and fall, but can occur anytime.







Boils

- A boil, also referred to as a skin abscess, is a localized infection deep in the skin.
- A boil generally starts as a reddened, tender area. Over time, the area becomes firm and hard.
- Eventually, the center of the abscess softens and becomes filled with infection-fighting white blood cells that the body sends via the bloodstream to eradicate the infection.
- This collection of white blood cells, bacteria, and proteins is known as pus.





Carbuncles

- A skin abscess, a collection of pus that forms inside the body.
- Antibiotics are often not very helpful in treating abscesses.
- The main treatments include hot packs and draining ("lancing") the abscess, but only when it is soft and ready to drain.





Ringworm

- Ringworm is not, as its name suggests, caused by a worm.
- Characterized by round lesions (rings) and early belief that the infection was caused by a parasite (worm), the term ringworm was born. Further confusion comes from the medical term for ringworm, *tinea*, which is Latin for 'growing worm.'
- While the condition is actually the result of a fungal infection, the name 'ringworm' has stuck.







Warts

- Common warts are local growths in the skin that are caused by <u>human papillomavirus</u> (HPV) infection.
- Although they are considered to be contagious, it is very common for just one family member to have them.
- They often affect just one part of the body (such as the hands or the feet) without spreading over time to other areas.







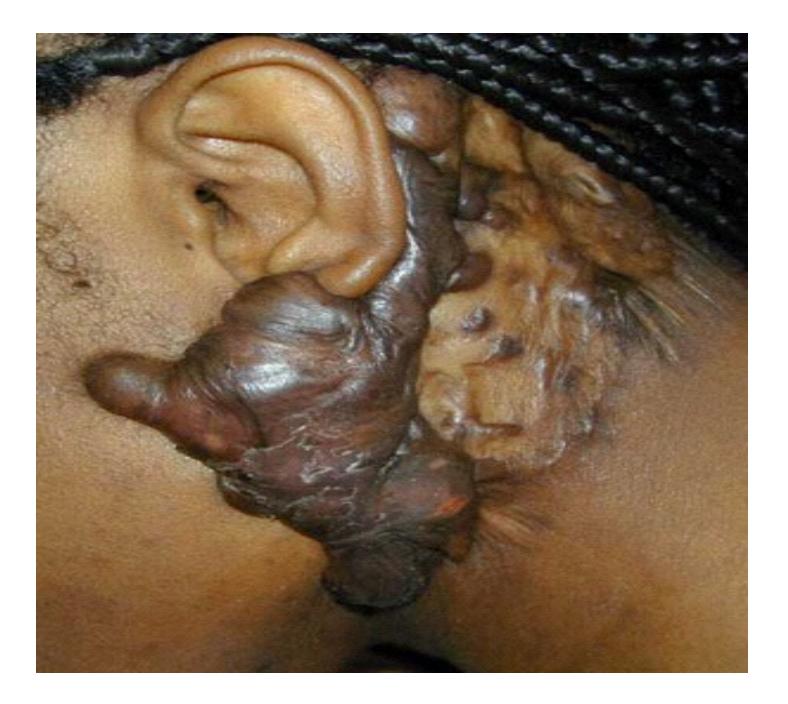
Keloid

- A keloid is a scar that doesn't know when to stop. When the cells keep on reproducing, the result is an overgrown (hypertrophic) scar or a keloid.
- A keloid looks shiny and is often domeshaped, ranging in color from slightly pink to red.
- It feels hard and thick and is always raised above the surrounding skin.









MRSA- Staph Infection

- MRSA stands for methicillin resistant <u>Staphylococcus</u> <u>aureus</u> (S. aureus) bacteria.
- This organism is known for causing skin infections, in addition to many other types of infections.
- It is also found to be more prevalent in hospital settings and is highly contagious.
- Most MRSA infections are skin infections that produce the following signs and symptoms: <u>cellulitis</u> (infection

follicles), $\cdot \cdot \underline{\cdot}$ abscesses (collections of pus in under the skin).







Gangrene

- Gangrene may result when blood flow to a tissue is lost or not adequate to keep the tissue alive.
- There are two types of gangrene: wet and dry. All cases of wet gangrene are infected by bacteria. Most cases of dry gangrene are not infected. If wet gangrene goes untreated, the patient may die of sepsis and die within hours or days. Dry gangrene usually doesn't cause the patient to die.
- Symptoms of dry gangrene include numbress, discoloration, and mummification of the affected tissue.
- Wet gangrene symptoms include swelling, pain, pus, bad smell, and black appearance of the affected tissue.
- Treatment depends upon the type of gangrene and how much tissue is compromised by the gangrene.









Harlequin Type Ichthyosis

- A skin disease, is the most severe form of <u>congenital</u> <u>ichthyosis</u>, characterized by a thickening of the <u>keratin</u> layer in <u>fetal human skin</u>.
- In sufferers of the disease, the skin contains massive, diamond-shaped scales, and tends to have a reddish color.
- In addition, the eyes, ears, mouth, and other appendages may be abnormally contracted. The scaly keratin greatly limits the child's movement.
- Because the skin is cracked where normal skin would fold, it is easily pregnable by <u>bacteria</u> and other <u>contaminants</u>, resulting in serious risk of fatal infection.











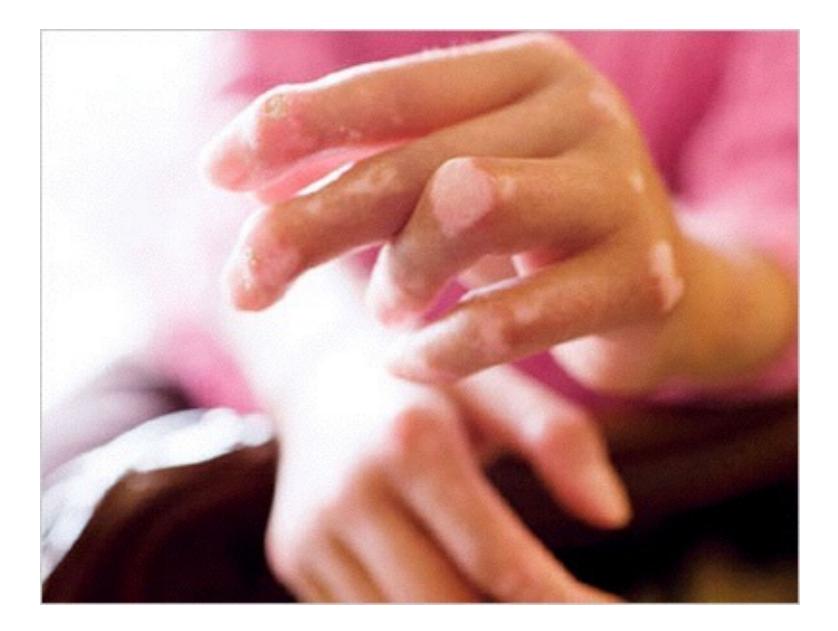


Scleroderma

- Scleroderma is an autoimmune disease of the connective tissue. Autoimmune diseases are illnesses which occur when the body's tissues are attacked by its own immune system.
- Scleroderma is characterized by the formation of scar tissue (fibrosis) in the skin and organs of the body.
- This leads to thickness and firmness of involved areas.

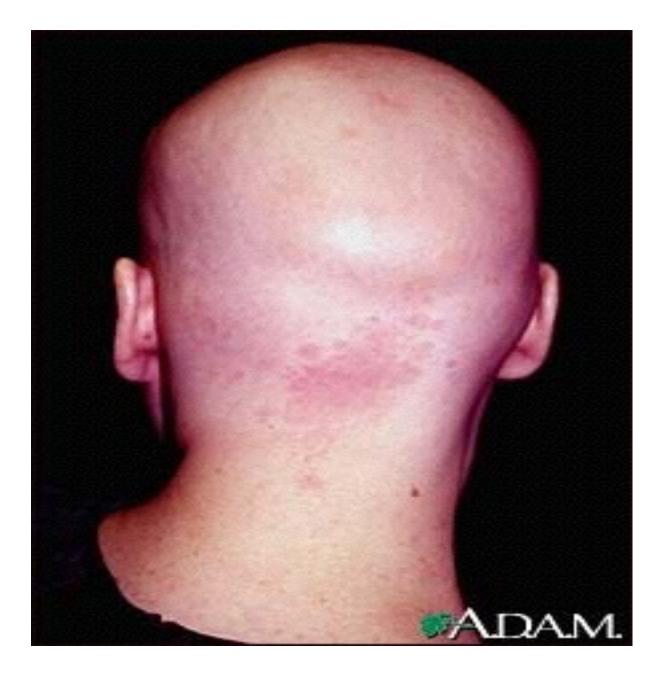


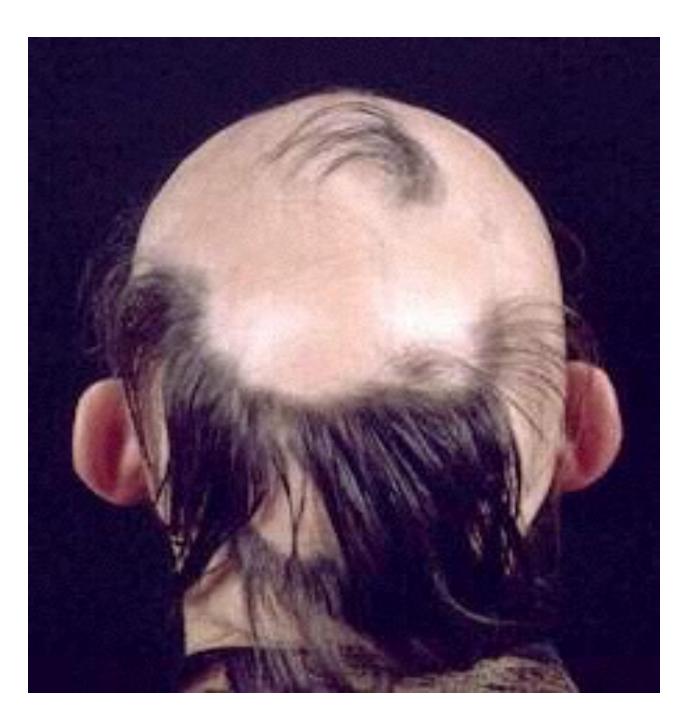


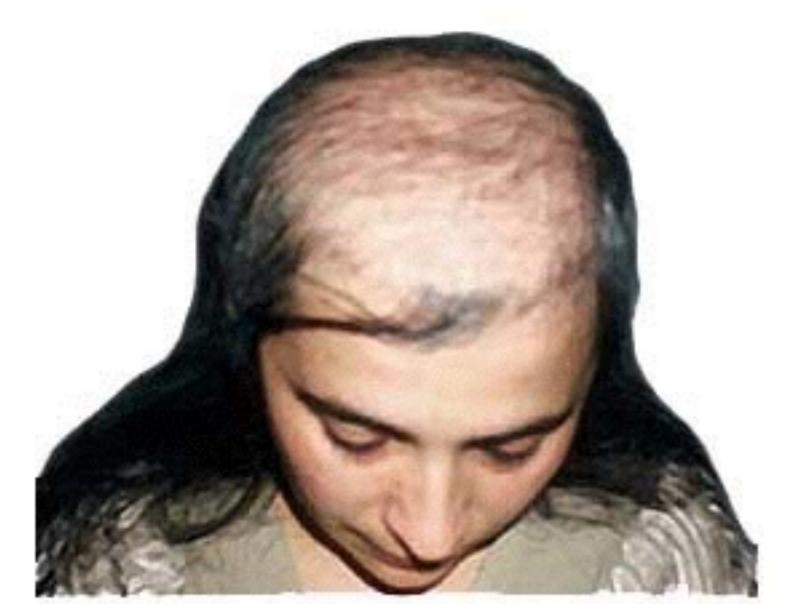


Alopecia Areata

- Alopecia areata is a hair-loss condition which usually affects the scalp. It can, however, sometimes affect other areas of the body.
- <u>Hair loss</u> tends to be rather rapid and often involves one side of the head more than the other.
- Alopecia areata affects both males and females. This type of hair loss is different than male-pattern baldness, an inherited condition.
- Current evidence suggests that alopecia areata is caused by an abnormality in the immune system.
- In alopecia areata, for unknown reasons, the body's own immune system attacks the hair follicles and disrupts normal hair formation.



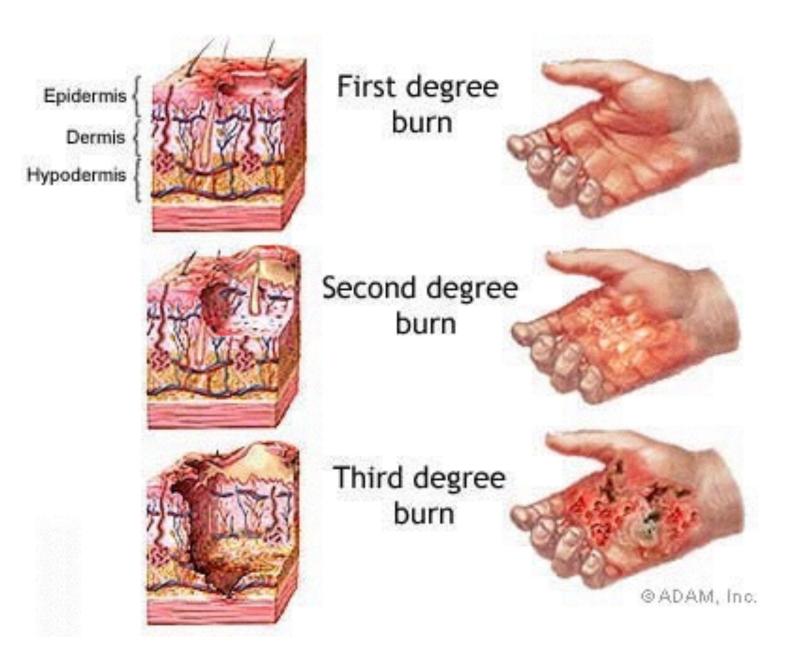




www.hairlossfemale.blogspot.com

Burns

- Burns are categorized by severity as first, second, or third degree.
- First degree burns are similar to a painful sunburn, causing redness and swelling to the tissues.
- The damage is more severe with second degree burns, leading to blistering and more intense pain.
 Damage is found in deeper tissues.
- The skin turns white and loses sensation with third degree burns. The entire depth of tissue is affected. Scarring is permanent, and depending on the extent of the burning, may be fatal.
- Burn treatment depends upon the location, total burn area, and intensity of the burn.



1st Degree Burn





2nd Degree Burn





3rd Degree Burn



Skin Grafting

In its most basic sense, skin grafting is the transplanting of skin and, occasionally, other underlying tissue types to another location of the body.



Skin Cancer

- Skin cancer is the most common form of cancer in the United States.
- More than one million skin cancers are diagnosed annually. Each year there are more new cases of skin cancer than the combined incidence of cancers of the breast, prostate, lung and colon.
- One in five Americans will develop skin cancer in the course of a lifetime.
- Basal cell carcinoma (BCC) is the most common form of skin cancer; about one million of the cases diagnosed annually are basal cell carcinomas. basal cell carcinomas are rarely fatal, but can be highly disfiguring
- Squamous cell carcinoma (SCC) is the second most common form of skin cancer. More than 250,000 cases are diagnosed each year, resulting in approximately 2,500 deaths.
- Basal cell carcinoma and squamous cell carcinoma are the two major forms of non-melanoma skin cancer. Between 40 and 50 percent of Americans who live to age 65 will have either skin cancer at least once.
- About 90 percent of non-melanoma skin cancers are associated with exposure to ultraviolet (UV) radiation from the sun.
- Up to 90 percent of the visible changes commonly attributed to aging are caused by the sun.

Basal Cell Carcinoma

- Basal cell cancer most often appears on sun-exposed areas such as the face, scalp, ears, chest, back, and legs.
- The most common appearance of basal cell cancer is that of a small dome-shaped bump that has a pearly white color.
- Blood vessels may be seen on the surface.
- Basal cell cancer can also appear as a pimple-like growth that heals, only to come back again and again.
- A very common sign of basal cell cancer is a sore that bleeds, heals up, only to recur again.







Squamous Cell Carcinoma

- A firm, red nodule on your face, lower lip, ears, neck, hands or arms.
- A flat lesion with a scaly crust on your face, ears, neck, hands or arms.
- A new ulceration or raised area on a pre-existing scar or ulcer.
- An ulcer or flat, white patch inside your mouth.
- A red, raised patch or ulcerated sore in the anus or on your genitals.







Melanoma

- A highly malignant type of skin cancer that arises in melanocytes, the cells that produce pigment.
- Melanoma usually begins in a mole.
- A popular method for remembering the signs and symptoms of melanoma is the mnemonic "ABCD":
- Asymmetrical skin lesion.
- Border of the lesion is irregular.
- Color: melanomas usually have multiple colors.
- **Diameter**: moles greater than 6mm are more likely to be melanomas than smaller moles.







Moh's Surgery

- Initially developed by Dr. Frederic E. Mohs, the Mohs procedure is a state-of-the-art treatment that has been continuously refined over 70 years.
- With the Mohs technique, physicians are able to see beyond the visible disease, to precisely identify and remove the entire tumor layer by layer while leaving the surrounding healthy tissue intact and unharmed.
- It relies on the accuracy of a microscopic surgical procedure to trace the edges of the cancer and ensure complete removal of all tumors down to the roots during the initial surgery.

Let's go to the Video!



Let's Go to the Video!