Erythema annulare centrifugum. Polycyclic lesion on the thigh of a child with a tinea capitis infection.

Worms don't cause ringworm. Rather, this superficial skin infection, also known as tinea, is caused by fungi called dermatophytes. Fungi are microscopic organisms that can live off the dead tissues of your skin, hair, and nails, much like a mushroom can grow on the bark of a tree. Ringworm is characterized by a red ring of small blisters or a red ring of scaly skin that grows outward as the infection spreads. Though children are especially susceptible to catching ringworm, it can affect adults as well.

Impetigo: S. aureus. Crusted erythematous erosions becoming confluent on the nose, cheek, lips, and chin in a child with nasal carriage of S. aureus and mild facial eczema.
Bartonellosis: cat-scratch disease with axillary adenopathy. Acute, very tender, axillary lymphadenopathy in a child; cat scratches were present on the dorsum of the ipsilateral hand.

**Folliculitis:** An *infection* of the hair follicles of the skin. *Infection* of the hair follicles can occur when the skin is disrupted or inflamed due to a number of conditions, including *acne*, skin wounds or injuries, friction from clothing, excessive *sweating*, or exposure to toxins. The symptoms vary and include small, red *bumps* or blisters around hair follicles, blisters filled with *pus*, or *itching* and tenderness of the involved area. When the deeper parts of the *hair follicle* are infected, a painful lump or mass may be felt.

"Hot tub folliculitis" refers to a folliculitis arising from infection with *Pseudomonas bacteria* which can be present in hot tubs where the acidity and chlorine levels are not well controlled.
Rosacea (say "roh-ZAY-sha") is a skin disease that causes redness and pimples on your nose, cheeks, chin, and forehead. The redness may come and go. People sometimes call rosacea "adult acne" because it can cause outbreaks that look like acne. It can also cause burning and soreness in the eyes and eyelids.

Rosacea often flares when something causes the blood vessels in the face to expand, which causes redness. Things that cause a flare-up are called triggers. Common triggers are exercise, sun and wind exposure, hot weather, stress, spicy foods, alcohol, and hot baths. Swings in temperature from hot to cold or cold to hot can also cause a flare-up of rosacea. Rosacea can be embarrassing. And if it is untreated, it can get worse. If the symptoms bother you, see your doctor and learn ways to control rosacea.

Pink pimples ("neonatal acne") are often caused by exposure in the womb to maternal hormones. No treatment is needed, just time. They can last for weeks or even months on baby's skin.

In the first few months of a baby's life, any rash associated with other symptoms (such as fever, poor feeding, lethargy, cough) needs to be evaluated by a pediatrician as soon as possible.
Furuncle: S. aureus. Soft-tissue swelling of the forehead with central abscess formation, nearing rupture.

Exactly what causes acne? Acne develops when cells and natural oils begin to block up tiny hair follicles in the skin. Bacteria work their way into the plugged up follicles and start multiplying. When the body's immune cells move in to attack the bacteria, the results of the battle are the classic symptoms of acne -- swelling, redness, and pimples.

Acne medications help by interrupting this process in different ways. Some over-the-counter and prescription acne creams help by unplugging the follicles. Others - such as antibiotics - kill the bacteria that move into the follicles. The oral retinoid Accutane works differently by reducing the amount of oil secreted by glands in the skin.

There is no best acne treatment. Some people do fine using one acne cream, although many need a combination of approaches to control their teen acne.
Hand-foot-and-mouth disease. Multiple, discrete, small, vesicular lesions on the fingers and palms; similar lesions were also present on the feet. Some vesicles are typically linear.

Hand-foot-mouth disease. This common and benign viral disease of childhood is usually caused by the A16 strain of coxsackievirus, although other strains of the same virus have been implicated. It most often occurs in late summer and early fall. The prodrome consists of low-grade fever and malaise. Shortly thereafter, vesicular lesions arise on the soft palate, tongue, buccal mucosa, and uvula. The lips are usually spared. Occasionally, these lesions may be painful and cause some difficulty in eating. The cutaneous lesions develop 1 or 2 days after those in the mouth. They consist of asymptomatic round or oval vesiculopustules that evolve into superficial erosions. The edges of the palms and soles are a favored location.

Erythema multiforme minor (EM minor). Polycyclic target lesions with alternating rings of erythema and dusky desquamation on the arm.
Classic Kaposi's sarcoma. Ecchymotic purple-brownish macule and a 1-cm nodule on the dorsum of the hand of a 65-year-old male of Ashkenazi-Jewish extraction. The lesion was originally mistaken for a bruise as were similar lesions on the feet and on the other hand. The appearance of brownish nodules together with additional macules prompted a referral of this otherwise completely healthy patient to a dermatologist who diagnosed Kaposi's sarcoma, which was verified by biopsy. Note also onychomycosis of all fingernails.

Measles: An acute and highly contagious viral disease characterized by fever, runny nose, cough, red eyes, and a spreading skin rash. Measles, also known as rubeola, is a potentially disastrous disease. It can be complicated by ear infections, pneumonia, encephalitis (which can cause convulsions, mental retardation, and even death), the sudden onset of low blood platelet levels with severe bleeding (acute thrombocytopenic purpura), or a chronic brain disease that occurs months to years after an attack of measles (subacute sclerosing panencephalitis).

During pregnancy, exposure to the measles virus may trigger miscarriage or premature delivery.

Treatment includes rest, calamine lotion or other anti-itching preparations to soothe the skin, non-aspirin pain relievers for fever, and in some cases antibiotics. Measles can often be prevented through vaccination. Also known as hard measles, seven-day measles, eight-day measles, nine-day measles, ten-day measles, morbilli.

See also measles encephalitis; measles immunization; measles syndrome, atypical; MMR.
Warts: A local growth of the outer layer of the skin (the epidermis) caused by a virus. The virus of warts (a papillomavirus) is transmitted by contact. The contact can be with a wart on someone else or one on oneself (autoinoculation). Warts that occur on the hands or top of the feet are called "common warts." A wart on the sole (the plantar surface) of the foot is a plantar wart (and can be quite painful). Genital (venereal) warts are located on the genitals and are transmitted by sexual contact; they are a form of STD (sexually transmitted disease). Warts are nothing new. The word "wart" is from Old English. As far back as the 8th century, a "wart" was, well, a wart. The medical name for a wart is "verruca", the Latin for wart. A common wart is a "verruca vulgaris". A wart in medicine is also sometimes called by its Spanish name, " verruga".

Plantar warts: Warts that grow on the soles of the feet. Plantar warts are different from most other warts. They tend to be flat and cause the buildup of callus (that has to be peeled away before the plantar wart itself can be seen. Plantar warts may attack blood vessels deep in the skin. They can be quite painful. Plantar warts are caused by human papillomavirus (HPV) type 1 and tend to affect teenagers. By contrast, common warts on the skin of the fingers and hands appear as little mounds of overgrown skin with a rough dry surface. They do not as a rule grow down much and they do not tend to hurt. They are usually caused by HPV types 2 and 4 and by preference affect young children before their teens. To avoid plantar warts, a child should be taught never to wear someone else’s shoes. If a child gets plantar warts, they should be treated by a doctor. Plantar warts can be far more of a problem than common warts.
Cold sores, sometimes called fever blisters, are groups of small blisters on the lip and around the mouth. The skin around the blisters is often red, swollen, and sore. The blisters may break open, leak a clear fluid, and then scab over after a few days. They usually heal after several days to 2 weeks. Cold sores are caused by the herpes simplex virus (HSV). There are two types of herpes simplex virus: HSV-1 and HSV-2. Both virus types can cause lip and mouth sores and genital herpes.

The herpes simplex virus usually enters the body through a break in the skin around or inside the mouth. It is usually spread when a person touches a cold sore or touches infected fluid—such as from sharing eating utensils or razors, kissing an infected person, or touching that person’s saliva. A parent who has a cold sore often spreads the infection to his or her child in this way. Cold sores can also be spread to other areas of the body.

**Molluscum contagiosum:** A contagious disease of the skin marked by the occurrence of rounded soft tumors of the skin caused by the growth of a virus (one that belongs to the virus family called the Poxviridae). The disease is characterized by the appearance of a few to numerous small, pearly, umbilicated downgrowths called molluscum bodies or condyloma subcutaneum. Molluscum contagiosum is mainly seen in children. In teenagers and adults it is often transmitted sexually and so may be considered a sexually transmitted disease (STD). It is a benign disorder that usually clears up by itself. The Latin "molluscus" means soft.
Herpetic whitlow. Painful grouped red-blue vesicles on the middle finger of a child.

Herpes zoster. Grouped vesicles on an erythematous base in a dermatomal distribution on the hip of an infant.

Varicella-zoster virus infection: herpes zoster with cluster of grouped vesicles. Grouped and confluent vesicles surrounding erythema on the chest wall.
Varicella-zoster virus infection: herpes zoster in T8 to T10 dermatomes. Typical grouped vesicles and pustules with erythema and edema of three contiguous thoracic dermatomes on the posterior chest wall.

**Shingles**: An acute infection caused by the herpes zoster virus, the same virus as causes chickenpox. Shingles is most common after the age of 50 and the risk rises with advancing age. Shingles occurs because of exposure to chickenpox or reactivation of the herpes zoster virus. The virus remains latent (dormant) in nerve roots for many years following chickenpox.

Shingles is an extraordinarily painful condition that involves inflammation of sensory nerves. It causes numbness, itching or pain followed by the appearance of clusters of little blisters in a strip pattern on one side of the body. The pain can persist for weeks, months or years after the rash heals and is then known as post-herpetic neuralgia.

People with shingles are contagious to persons who have not had chickenpox and can catch chickenpox from close contact with a person who has shingles. Treatment includes antiviral medication and pain medication.

The term shingles has nothing to do with a shingle on a roof or the small signboard outside the office of a doctor but is derived from the Latin cingulum meaning girdle, the idea being that shingles often girdles part of the body.
Lichen striatus. This is a common and benign self-limited childhood dermatosis that is easily diagnosed from its classic appearance. Onset is usually between the ages of 3 and 10 years, and it is rare in young infants, adolescents, and adults. The lesions consist of pink, flesh-colored, or slightly hypopigmented flat-topped papules that evolve in a linear array following lines of Blaschko. The linear course of the papules may eventually traverse the major part of an extremity. The area of involvement is often noted to become wider as it advances and may even include the nails.
Drug eruptions (dermatitis medicamentosa). Drug eruptions may mimic nearly the entire range of dermatoses of other causes. One of the commonest forms is the exanthematic, whose lesions are usually erythematous and edematous. Common causes of drug eruptions include ampicillin, cephalosporins, semisynthetic penicillins, and barbiturates. We have just illustrated cases that were morbilliform. Illustrated here are cases clinically resembling erythema multiforme.

Drug eruptions (dermatitis medicamentosa). Diagnosing drug eruptions has become a common experience to practitioners in all branches of modern medicine. The profusion of drugs now available, the continuous influx of new drugs, and the capability of drugs to cause actions different from or in addition to their pharmacologically desirable actions make adverse cutaneous reactions an inevitable fact of modern medical practice. The kinds of cutaneous reactions are varied. Exanthems (erythematous, morbilliform or maculopapular), urticaria, fixed drug eruptions, and erythema multiforme are the most common. Figure 18-1 is an urticarial reaction from Augmentin and Fig. 18-2 shows a morbilliform eruption from ampicillin. Constitutional symptoms of low-grade fever and malaise may be associated with such drug eruptions. Morbilliform eruptions from ampicillin are more frequently seen in children with infectious mononucleosis.

Cercarial dermatitis: swimmer's itch. Erythematous papules on the exposed areas of a swimmer.
Eczema is a skin condition caused by inflammation. Atopic dermatitis is the most common of the many types of eczema. While the word "dermatitis" means inflammation of the skin, "atopic" refers to an allergic tendency, which is often inherited. These eczema sufferers have a higher risk of developing other allergic conditions (like asthma or hay fever). Eczema is a chronic problem for many people. It is most common among infants, many of whom outgrow it before school age.

Allergic contact dermatitis (reaction to temporary tattoo). Contact allergy to temporary tattoos has become an increasingly common phenomenon. In most cases, the tattoo material does not contain pure henna, but is a mixture of brown henna with paraphenylenediamine (PPD) called black henna. The patient is allergic to PPD in the tattoo. In fact, the concentration of PPD in black henna is higher than that seen in commercial hair dyes. After resolution of the eczematous skin eruption, postinflammatory hyperpigmentation may persist for a considerable period of time.
**Allergic contact dermatitis:** A red, itchy, weepy reaction where the skin has come into contact with a substance that the immune system recognizes as foreign, such as poison ivy, poison oak or poison sumac or certain preservatives in creams and lotions. This type of reaction reflects a specific sensitivity or allergy to a specific substance. Also called allergic contact eczema.

**Nummular eczema:** Coin-shaped patches of irritated skin-most common on the arms, back, buttocks, and lower legs that may be crusted, scaling, and extremely itchy.

The word "nummular" is taken from the Latin "nummus," a small coin.
**Xerosis:** Abnormal dryness of the skin (xeroderma), of the conjunctiva of the eye (xerophthalmia), or of the mucous membranes such as dry mouth (xerostomia).

The word "xerosis" literally means "dry condition." It was compounded from the Greek roots "xero-" (dry) and "-osis" (condition).

Eczema herpeticum. Widespread punched-out lesions on a child with atopic dermatitis and superimposed herpes simplex infection.

**Eczema:** A particular type of inflammatory reaction of the skin in which there are typically vesicles (tiny blister-like raised areas) in the first stage followed by erythema (reddening), edema (swelling), papules (bumps), and crusting of the skin followed, finally, by lichenification (thickening) and scaling of the skin. Eczema characteristically causes itching and burning of the skin.

Eczema, which is also called atopic dermatitis, is a very common skin problem. It may start in infancy, later in childhood, or in adulthood. Once it gets underway, it tends not to go quickly away.

There are numerous types of eczema, including:
Atopic dermatitis -- a chronic skin disease characterized by itchy, inflamed skin

Contact eczema -- a localized reaction that includes redness, itching, and burning where the skin has come into contact with an allergen (an allergy-causing substance) or with an irritant such as an acid, a cleaning agent, or other chemical

Allergic contact eczema -- a red, itchy, weepy reaction where the skin has come into contact with a substance that the immune system recognizes as foreign, such as poison ivy or certain preservatives in creams and lotions

Seborrheic eczema -- a form of skin inflammation of unknown cause that presents as yellowish, oily, scaly patches of skin on the scalp, face, and occasionally other parts of the body

Nummular eczema -- coin-shaped patches of irritated skin—most commonly on the arms, back, buttocks, and lower legs—that may be crusted, scaling, and extremely itchy

Neurodermatitis -- scaly patches of skin on the head, lower legs, wrists, or forearms caused by a localized itch (such as an insect bite) that becomes intensely irritated when scratched

Stasis dermatitis -- a skin irritation on the lower legs, generally related to circulatory problems

Dyshidrotic eczema -- irritation of the skin on the palms of hands and soles of the feet characterized by clear, deep blisters that itch and burn.

Athlete's foot is caused by a fungus that grows on or in the top layer of skin. Fungi (plural of fungus) grow best in warm, wet places, such as the area between the toes.

Athlete's foot spreads easily. You can get it by touching the toes or feet of a person who has it. But most often, people get it by walking barefoot on contaminated surfaces near swimming pools or in locker rooms. The fungi then grow in your shoes, especially if your shoes are so tight that air cannot move around your feet.

Athlete's foot can make your feet and the skin between your toes burn and itch. The skin may peel and crack. Your symptoms can depend on the type of athlete's foot you have. Read more about athlete's foot.
is a yeast infection that causes white patches in the mouth and on the tongue. Thrush is most common in babies and older adults, but it can occur at any age.

In babies, it is easy to mistake thrush for milk or formula. It looks like cottage cheese or milk curds. Don't try to wipe away these patches, because you can make them red and sore. Some babies with thrush can be cranky and do not want to eat.

Histoplasmosis, disseminated. Scattered erythematous papules and pustules in an HIV-infected individual with disseminated histoplasmosis.

Scabies: Infestation of the skin by the human itch mite, Sarcopes scabies. The initial symptom of scabies are red, raised bumps that are intensely itchy. A magnifying glass will reveal short, wavy lines of red skin, which are the burrows made by the mites. Treatment is with any of several scabicide medications.
Adult bed bugs are wingless insects about one-quarter of an inch long and oval in shape. Their color is nearly white after molting, then ranges from tan to burnt orange. After a blood meal, they'll appear dark red or black.

Their flat bodies enable them to hide in dark, cozy cracks and crevices in beds, baseboards, sofas, and drawers, and even behind wallpaper and electrical switchplates. That's where they nest during the day, typically not far from where they'll find their host -- that's you -- at night.

The first sign of bedbugs may be red, itchy bites on the skin, usually on the arms or shoulders. Bedbugs tend to leave straight rows of bites, unlike some other insects that leave bites here and there.

Bedbugs do not seem to spread disease to people. But itching from the bites can be so bad that some people will scratch enough to cause breaks in the skin that get infected easily. The bites can also cause an allergic reaction in some people. Read more about bedbug bites - symptoms, treatments and prevention.
Head lice: *Pediculus humanus capitis*, parasitic insects found on the heads of people. Head lice are most often found on the scalp behind the ears and near the neckline at the back of the neck. The lice hold onto the hair with hook-like claws at the end of each of their six legs. Head lice are rarely found on the body, eyelashes, or eyebrows. These insects lay their sticky, white eggs on the hair shaft close to the root, while hatched lice stay mostly on the scalp. Head lice infection is very common and easily acquired by coming in close contact with someone who has head lice, infested clothing, or infested belongings. Preschool and elementary school children and their families are most often infested. Symptoms include a tickling feeling of something moving in the hair, itching caused by an allergic reaction to the bites, irritability, and sores on the head caused by scratching. Although lice are very small, they can be seen be seen on the scalp when they move. The eggs (nits) are easily seen on hair shafts. Treatment involves a combination of a topical insecticidal medication and manual removal of all nits with a lice comb or the fingers. Both medication and complete nit removal are necessary to prevent reinfection. All clothing, bedding, and furniture surfaces must also be washed or sprayed with insecticide. Note that pyrethrin-based medications such as 1% lindane solution (brand name: Qwell) contain benzine, which can be toxic to the brain and has been linked to childhood leukemia. For this reason, these medications are no longer generally recommended for treatment for head lice. Excessive exposure to sunlight is the main cause of skin cancer. Sunlight contains ultraviolet (UV) rays that can alter the genetic material in skin cells, causing mutations. Sunlamps, tanning booths, and X-rays also generate UV rays that can damage skin and cause malignant cell mutations. Basal cell carcinoma and squamous cell carcinoma have been linked to chronic sun exposure, typically in fair-skinned people who work outside. Melanoma is associated with infrequent but excessive sunbathing that causes scorching sunburn. One blistering sunburn during childhood appears to double a person's risk for developing melanoma later in life. Uncommon types of skin cancer include Kaposi's sarcoma, mainly seen in people with weakened immune systems; Merkel cell carcinoma, which is usually found on sun-exposed areas on the head, neck, arms and legs but often spreads to other parts of the body; and sebaceous gland carcinoma, an aggressive cancer originating in the oil glands in the skin.
Seborrheic keratosis: A benign skin disorder due to excessive growth of the top layer of skin cells, usually found in persons over 30 years old. They may appear as just one growth or in clusters. They are most often brown but can differ in color and range anywhere from light tan to black. They come in different sizes, anywhere from a fraction of an inch (or centimeter) to an inch (2.5 cm) in diameter. The telltale feature of seborrhelic keratoses is that they look like they have been pasted on the skin or just stuck on it. They may look like a dab of warm brown candle wax that dropped on the skin. Almost everybody eventually develops at least a few seborrhelic keratoses since they tend to become more common and more numerous with age. They are sometimes referred to as "barnacles of old age." The development of seborrhelic keratoses is sometimes triggered by pregnancy, estrogen therapy or certain medical conditions. Seborrhelic keratoses are most often found on the chest or back but can be found on the scalp, face, or neck or almost anywhere on the body. When they first appear, the growths usually begin one at a time as small rough bumps. Eventually they thicken and develop a rough, warty surface. Although seborrhelic keratoses may first appear in one spot and seem to spread to another, they are not catching. As people age they may simply develop a few more. These growths may be unsightly, especially if they begin to appear on the face. They can get irritated by clothing rubbing against them. Because they may grow larger over the years, removal is sometimes recommended especially if they get irritated and bleed easily. A seborrhelic keratosis may turn black and may be difficult to distinguish from a skin cancer. Sometimes such a growth must be removed and studied under a microscope to determine if it is cancerous or not. Salves, ointments or medication can neither cure nor prevent seborrhelic keratoses. Most often seborrhelic keratoses are treated by one of three methods:

Freezing -- One method is called cryotherapy, or freezing. A very cold liquid called liquid nitrogen is applied to the growth with a cotton swab or spray gun to freeze it. Blisters may form under the growth that dry into a scablike crust. The keratosis usually falls off within a few weeks. No mark is usually left, although occasionally there may be a small dark or light spot. These will fade over time.

Scraping -- Another method is called curettage. The growths are removed by "curetting" or scraping them from the surface of the skin. An injection or spray is first used to numb the area before the growth is removed. No stitches are necessary and bleeding is very limited. It can be controlled by applying pressure or by the application of a blood-clotting chemical.

Electrosurgery -- Electrosurgery is another form of treatment. The growth is first numbed, then burned using an electric current and then scraped off.
Actinic keratosis: A small rough spot on skin chronically exposed to the sun, precancerous, can develop into a skin cancer called squamous cell carcinoma, a process that typically takes years. Actinic keratoses occur most frequently in fair-skinned people. Common locations are the face, scalp, back of the neck, upper chest, forearm and back of the hand. Prevention is by minimizing sun exposure. Treatments include cryosurgery (freezing them with liquid nitrogen), cutting them away, burning them, putting 5-fluorouracil (5-FU) on them, and photodynamic therapy (which involves injecting into the bloodstream a chemical that collects in actinic keratoses and makes them more sensitive to exposure to a specialized form of light).
**Basal cell carcinoma**: The most common type of skin cancer, a disease in which the cancer cells resemble the basal cells of the epidermis, the outer layer of the skin.

Basal cell carcinomas usually appear as the classic "sore that doesn't heal." A bleeding or scabbing sore that seems to get somewhat better, then recurs and starts to bleed, may be a basal cell carcinoma.

Most basal cell carcinomas are on the face and neck where the skin is exposed to sunlight. However, a fair number show up on parts of the body such as the abdomen, leg, and scalp exposed to little or no sunlight.

Basal cell carcinomas typically are locally invasive. They tend to burrow in locally and not metastasize (spread) to distant locations.

Small basal cell carcinomas can be removed by being scraped and burned (electrodesiccation and curettage). Larger basal cells can be removed by surgery. Basal cell carcinomas on the scalp, ears, and sides of the nose, as well as those which have come back after being treated, are treated best by Mohs surgery.

One basal cell carcinoma means an increased risk of developing another. Prudent sun precautions and annual skin checkups by the doctor are advisable.
Basal cell carcinoma, pigmented. A nodule with irregular borders and variegation of melanin hues, easily confused with a malignant melanoma. Features indicating BCC are the areas of translucency and surface telangiectasia.

Basal cell carcinoma. A smooth, pearly tumor with telangiectasia on the nose. Tumor feels hard, is well defined, and is asymptomatic.

Basal cell carcinoma. This is a farther advanced nodular BCC. A solitary, shiny, nodule with large telangiectatic vessels on the ala nasi, arising on skin with dermatoheliosis.

Basal cell nevus syndrome. Numerous basal cell epitheliomas on the neck of a child.

**Merkel cell carcinoma**: An infrequent but highly malignant type of skin cancer. Characteristically starts in a sun-exposed area (of the head, neck, arms or legs) in whites 60-80 years of age as a firm, painless, shiny lump that can be red, pink, or blue in color and vary in size from less than a quarter of an inch (a half cm) to more than two inches (5 cm) in diameter. The tumor grows rapidly and often metastasizes (spreads) to other parts of the body. Even relatively small tumors are capable of metastasis, particularly to the regional (nearby) lymph nodes. Merkel cell carcinoma follows an aggressive course like that of melanoma, and has a predilection to spread to (in order of frequency) liver, bone, brain, lung, and skin. The prognosis (outlook) is accordingly poor.

"Merkel" is often misspelled as "Merkle." The disease is named for the German anatomist and pathologist Friedrich Sigmund Merkel (1845-1919) and is also called neuroendocrine carcinoma of the skin.
Squamous cell carcinoma: Cancer that begins in squamous cells -- thin, flat cells that look under the microscope like fish scales. Squamous cells are found in the tissue that forms the surface of the skin, the lining of hollow organs of the body, and the passages of the respiratory and digestive tracts. Squamous cell carcinomas may arise in any of these tissues.
The word "squamous" came from the Latin *squama* meaning "the scale of a fish or serpent."

Squamous cell carcinoma. A round nodule with central hyperkeratosis, firm and indolent. This lesion cannot be distinguished clinically from keratoacanthoma; it is easily distinguished from nodular BCC because BCC does not develop hyperkeratosis.

Squamous cell carcinoma in situ: Bowen's disease. A large, sharply demarcated, scaly, erythematous plaque simulating a psoriatic lesion on the calf.

Squamous cell carcinoma. A round nodule with central hyperkeratosis, firm and indolent. This lesion cannot be distinguished clinically from keratoacanthoma; it is easily distinguished from nodular BCC because BCC does not develop hyperkeratosis.

Malignant melanoma. Less than 2 percent of all melanomas occur during childhood. Nonetheless, attention must be paid to signs and symptoms suggestive of this potentially fatal disease. Variegations of color are of particular concern. Irregular or notched borders, bleeding, and ulceration are other signs of malignant change. The patient may give a history of itching, and the parents may have noted rapid growth of the lesion. Because the prognosis of a melanoma is most closely related to the thickness of the lesion at the time of treatment, emphasis should be on early diagnosis.
**Lentigo Maligna Melanoma:** One of the four clinical types of malignant melanoma and the slowest growing one. It typically begins as a patch of mottled pigmentation that is dark brown, tan, or black on sun-exposed skin, such as on the face.

Desmoplastic melanoma. A flat nodule with bluish-red and brown portion in an elderly male; lesions often are surrounded by a macular portion resembling lentigo maligna.
The cutaneous horn appears as a funnel-shaped growth that extends from a red base on the skin. It is composed of compacted keratin (the same protein in nails). The size and shape of the growth can vary considerably, but most are a few millimeters in length. Squamous cell carcinoma is often found at the base. It usually occurs in fair-skinned elderly adults with a history of significant sun exposure.

Skin tag: A small tag of skin that may have a stalk (a peduncle). Skin tags may appear on the skin almost anywhere although the favorite locales are the eyelids, neck, armpits (axillae), upper chest, and groin.
Invariably benign, this tiny tumor of the skin usually causes no symptoms unless repeatedly irritated as, for example, by the collar.

Treatment may be done by freezing with liquid nitrogen or by cutting off with a scalpel or scissors if the skin tag is irritating or cosmetically unwanted.

Medically, a skin tag can be termed an acrochordon or a cutaneous papilloma. But it is far better known as a skin tag.

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Dermatofibroma: A common type of benign skin tumor that is small, slow-growing, typically firm, red-to-brown and most often on the legs. Also called a fibrous histiocytoma. They can grow up to about 1 cm (less than a half inch) in diameter. A dermatofibroma consists of a proliferation of scar-like tissue within the deeper layers of the skin (dermis).

The cause of dermatofibromas is unknown. They are usually single but sometimes may be multiple. Simple excision is curative.

Dysplastic nevus: An atypical mole whose appearance is different from that of a common ordinary mole. Dysplastic nevi tend to be larger than ordinary moles, have
more irregular borders, are often mixed in color and present in large numbers. A dysplastic nevus can give rise to malignant melanoma.

Halo nevus. Raised red-brown nevus with a depigmented halo surrounding it.

Junctional nevus. Two uniformly brown small macules, round in shape with smooth regular borders.
Neurofibromatosis: A **genetic** disorder of the nervous system that primarily affects the development and growth of neural (nerve) cell tissues, causes tumors to grow on nerves, and may produce other abnormalities.

Neurofibromatosis (NF) consists of two very different disorders: [neurofibromatosis type 1 (NF1)](#) and [neurofibromatosis type 2 (NF2)](#).

Sunburn: Sunburn is an **inflammation** of the skin that develops in response to exposure to ultraviolet (UV) **radiation** from the sun or from tanning beds and booths...
that emit **UV radiation**. Sunburn is manifested by reddened, painful skin that may develop blisters.

Sunburn early in life increases one's risk of developing skin cancers later in life such as **melanoma**, **basal cell carcinoma**, and **squamous cell carcinoma**. Sunburn can also lead to drying and premature wrinkling of the skin. Sunburn can be prevented by limitation of sun exposure and use of **sunsreen** products. Sunscreens with a **sun protection factor (SPF)** of at least 15 are recommended for most people.

Addison's disease. Hyperpigmentation representing an accentuation of normal pigmentation of the hand of a patient with Addison's disease (left). For comparison, the hand of a normal individual, matched for ethnic pigmentation, is shown on the right.
Melasma: Pigmentation of the face, most commonly on the malar area (the upper cheek), bridge of nose, forehead, and upper lip, that occurs in half of women during pregnancy. Birth control pills can also cause melasma. However, hormone therapy after menopause does not cause the condition.

Melasma darkens from sun or any UV exposure. Sunscreens are essential. They should be broad spectrum. A SPF 30 or higher is best. A sunscreen should be worn daily, whether outside or inside. Treatment may also include bleaching creams and prescription creams. Melasma is also known as the "mask of pregnancy."
Psoriasis: A reddish, scaly rash often located over the surfaces of the elbows, knees, scalp, and around or in the ears, navel, genitals or buttocks. Psoriasis is an autoimmune disease that is mediated by T lymphocytes. It is also a very common disease. Chronic plaque psoriasis affects approximately 2% of people around the world. About 10-15% of patients with psoriasis develop joint inflammation (inflammatory arthritis). Treatment options include topical steroid creams, tar soap preparations, and exposure to ultraviolet light.

Pityriasis rosea: A common mild rash of unknown origin that can appear on a person of any age (most commonly at 10-35 years of age), may last from several weeks to several months, often begins with a "herald" patch, a large single pink patch on the chest or back and, within a week or so, more pink patches on the torso, arms and legs.
There may be itching, especially when overheated. Treatment may include medications for the itching and soothing lotions or lubricants, and lukewarm rather than hot baths.

Cradle cap (also called seborrheic dermatitis) is a rash that begins as scaling and redness on a baby's scalp. This condition is a noninfectious skin condition and is a form of eczema. Seborrheic dermatitis is common in infants, usually beginning in the first weeks of life and slowly disappearing over a period of weeks or months. The condition rarely is uncomfortable or itchy.

The precise cause of the rash is not known; however, Pityrosporum ovale (a yeast) is believed to play a role in this condition.
Almost every baby will get diaper rash at least once during the first 3 years of life, with the majority of these babies 9-12 months old. This is the time when the baby is still sitting most of the time and is also eating solid foods, which may change the acidity of the bowel movements.

Diaper rash appears on the skin under a diaper. Diaper rash typically occurs in infants and children younger than 2 years, but the rash can also be seen in people who are incontinent or paralyzed.

Erythema toxicum neonatorum. This very common and completely benign condition usually arises in the first 2 days of life. It is seen in about half of healthy newborns.
and occurs less frequently in preterm infants. The lesions are erythematous macules, within which papules and pustules may develop. The trunk is the most common site, but all other body surfaces, except for the palms and soles, may be involved. Occasionally these lesions may occur in plaques. The eruption shown in Fig. 1-1 began 2 hours after delivery and involved the face and trunk.

The eruption shown was unusual in that it was so widespread and vesiculopustular. Occasionally, this unimportant eruption must be differentiated from more serious infectious processes, such as neonatal herpes simplex. Tzanck smear of a pustule of erythema toxicum neonatorum will reveal numerous eosinophils but no multinucleated giant cells or bacteria. Occasionally, peripheral eosinophilia is also present. The cause of this condition is not known, and it resolves spontaneously within 10 days. No treatment is required.
Fixed drug eruption. A large red-violet plaque on the arm of a child.

Geographic tongue. There is a peculiar condition of the tongue that takes the form of denudations of the lingual surface in patches of redness that shift in position from time to time over hours and days. The cause of the condition is not known; there may be some relationship to psoriasis. No treatment is effective. The condition is largely asymptomatic except for slight tingling when sharp food is taken.
Gianetti-Crosti syndrome. Monomorphous papules coalescing into plaques on the cheeks of a child.

Gingival hyperplasia from phenytoin. The mechanisms of adverse reactions to drugs vary. Some, like the urticarial or eczematous, are clearly based on an allergic or immunologic mechanism; others are utterly obscure in mechanism. Such is the gingival hyperplasia caused by phenytoin. Since it occurs in almost all patients receiving the drug, all one can say is that the effect probably is within the normal pharmacologic action of the drug.
Lichen simplex chronicus. Hyperpigmented, lichenified plaque with accentuated skin lined caused by repeated rubbing of the area. Lichen simplex chronicus (LSC) is a localized, well-circumscribed area of lichenification (thickened skin) resulting from repeated rubbing, itching, and scratching of the skin. It can occur on normal skin of individuals with atopic, seborrheic, contact dermatitis, or psoriasis.

Drug hypersensitivity reaction. Morbilliform rash on the trunk occurring 1 week after the administration of a systemic cephalosporin.
Port wine stain: A mark on the skin that resembles port wine (porto) in its rich ruby red color. Due to an abnormal aggregation of capillaries, a port wine stain is a type of hemangioma. A port wine stain on the face is a sign of the Sturge-Weber syndrome.

Systemic lupus erythematosus: A chronic inflammatory condition caused by an autoimmune disease. An autoimmune disease occurs when the body's tissues are attacked by its own immune system. Patients with lupus have unusual antibodies in their blood that are targeted against their own body tissues.
Lupus can cause disease of the skin, heart, lungs, kidneys, joints, and nervous system. When only the skin is involved, the condition is called discoid lupus. When internal organs are involved, the condition is called systemic lupus erythematosus (SLE). Up to 10% of persons with discoid lupus (lupus limited to the skin) eventually develop the systemic form of lupus (SLE).

SLE is eight times more common in women than men. The causes of SLE are unknown. However, heredity, viruses, ultraviolet light, and drugs may all play a role.

Eleven criteria have been established for the diagnosis of SLE:

- **Malar** (over the cheeks of the face) "butterfly" rash
- Discoid skin rash: patchy redness that can cause scarring
- Photosensitivity: skin rash in reaction to sunlight exposure
- Mucus membrane ulcers: ulceration of the lining of the mouth, nose or throat
- Arthritis: 2 or more swollen, tender joints of the extremities
- Pleuritis/pericarditis: inflammation of the lining tissue around the heart or lungs, usually associated with chest pain with breathing
- Kidney abnormalities: abnormal amounts of urine protein or cellular elements
- Brain irritation: manifested by seizures (convulsions) and/or psychosis
- Blood count abnormalities: low counts of white or red blood cells, or platelets
- Immunologic disorder: abnormal immune tests include anti-DNA or anti-Sm (Smith) antibodies, falsely positive blood test for syphilis, antiphospholipid antibodies, lupus anticoagulant, or positive LE prep test
- Antinuclear antibody: positive ANA antibody testing

The treatment of SLE is directed toward decreasing inflammation and/or the level of autoimmune activity. Persons with SLE can help prevent "flares" of disease by avoiding sun exposure and by not abruptly discontinuing medications.
Acute systemic lupus erythematosus. Bright red, sharply defined erythema with slight edema and minimal scaling in a “butterfly pattern” on the face. This is the typical “malar rash.” Note also that the patient is female and young.

Hereditary hemorrhagic telangiectasia: Abbreviated HHT. A genetic disease characterized by the presence of arteriovenous malformations (AVMs) which involve direct connections between arteries and veins without the usual intervening capillaries. These AVMs can vary in size from a pinhead to a pea. The tiniest AVMs are called telangiectases. Those telangiectases that are close to the surface of skin and mucous membranes tend to rupture easily and bleed after even slight trauma. Recurrent nosebleeds are common, particularly at night, beginning at about the age of 12, due to the rupture of telangiectases within the nose. Large AVMs can bleed in the gastrointestinal (GI) tract, brain, spine, lung, liver and other sites and create major, sometimes life-threatening, problems.

HHT is inherited as an autosomal dominant trait. Most patients with HHT have a parent with the disease. Every child born to a person with HHT has a 50% risk of inheriting their affected parent's mutation and having the disease. HHT can be caused by mutation in one of two different genes: the endoglin gene (ENG) on chromosome 9 or the activin receptor gene (ACTR1) on chromosome 12. HHT has been genetically subdivided into HHT1 (due to ENG mutation) and HHT2 (due to ACTR1 mutation). Some families with HHT may also have mutations in another, as yet unidentified, gene.

HHT is also known as Osler-Rendu-Weber and Rendu-Osler-Weber disease or syndrome. Although his name was never given to the disorder, it was first described
in 1865 by the British physician Benjamin Guy Babington (who also invented the laryngoscope).

Dermatomyositis: A chronic inflammatory disease of skin and muscle which is associated with patches of slightly raised reddish or scaly rash. The rash can be on the bridge of the nose, around the eyes, or on sun-exposed areas of the neck and chest. Classically, however, it is over the knuckles. When the characteristic inflammation of the muscle (myositis) occurs without skin disease, the condition is referred to as polymyositis.

Dermatomyositis is one of a group of acquired muscle diseases called inflammatory myopathies. The disease has a subacute (somewhat short and relatively severe) onset. It affects both children and adults. Females are more often affected than males. Dermatomyositis is characterized by a rash accompanying, or more often, preceding muscle weakness. The most common symptom is muscle weakness, usually affecting those muscles that are closest to the trunk of the body (proximal). Eventually, patients have difficulty rising from a sitting position, climbing stairs, lifting objects, or reaching overhead. In some cases, distal muscles (those not close to the trunk of the body) may be affected later in the course of the disease. Trouble with swallowing (dysphagia) may occur. Occasionally, the muscles ache and are tender to touch. Some patients develop hardened bumps of calcium deposits under the skin. Patients may also feel fatigue and discomfort and have weight loss or a low-grade fever.

Treatment commonly involves a steroid drug called prednisone. For patients in whom prednisone is not effective, other immunosuppressants such as azathioprine and methotrexate may be prescribed. Recently, a drug called intravenous immunoglobulin was shown to be effective and safe in the treatment of the disease. Physical therapy is usually recommended to preserve muscle function and avoid muscle atrophy. Most cases of dermatomyositis respond to therapy. The disease is usually more severe and resistant to therapy in patients with cardiac or pulmonary problems.
Both polymyositis and dermatomyositis can sometimes be associated with cancers, including lymphoma, breast, lung, ovarian, and colon cancer. The cancer risk is reported to be much greater with dermatomyositis than polymyositis. (See polymyositis).

Polyarteritis nodosa: An autoimmune disease (immune system attacking its own body) characterized by spontaneous inflammation of the arteries (arteritis) of the body. Because arteries are involved, the disease can affect any organ of the body, most commonly muscles, joints, intestines, nerves, kidneys, and skin.
**Erythema nodosum:** An inflammatory reaction deep in the skin characterized by the presence of tender red lumps or nodules ranging in size from 1 to 5 centimeters most commonly located over the shins but occasionally involving the arms or other areas.

The causes of erythema nodosum include medications (sulfa-related drugs, birth control pills, estrogens, iodides and bromides), strep throat, cat scratch disease, fungal diseases, infectious mononucleosis, sarcoidosis, Behcet’s disease, inflammatory bowel disease (Crohn's disease and ulcerative colitis), and normal pregnancy. In many cases, no cause can be determined.

Erythema nodosum may be self-limited and go away on its own in 3 to 6 weeks. If treatment is needed, the underlying condition is treated and simultaneously treatment is directed toward the erythema nodosum. This can include antiinflammatory drugs and cortisone by mouth or injection. Colchicine is sometime used effectively to reduce inflammation.

Urticaria. Wheals with white-to-light-pink color centrally and peripheral erythema in a close-up view. These are the classic lesions of urticaria. It is characteristic that they are transient and highly pruritic.
Angiokeratoma circumscriptum. This vascular ectasia may be present at birth but has been reported to develop in childhood and even adulthood. There is a higher incidence in females. Lesions are most commonly found on the lower extremities but may be found elsewhere. Lesions consist of small nodules or larger plaques characterized by a dark red to purple color and a warty, hyperkeratotic scale sometimes in a linear distribution. These lesions may bleed when traumatized.

Ataxia-telangiectasia: A progressive neurodegenerative genetic disease characterized by cerebellar ataxia (incoordination and lack of balance), ocular telangiectasia ("red eyes" due to widening of small blood vessels in the conjunctiva), immune defects, and a predisposition to malignancy. Chromosomal breakage is a feature. Ataxia-telangiectasia (A-T) cells are abnormally sensitive to killing by ionizing radiation.
Ataxia telangiectasia. Telangiectasia on the ear of a child.

Ataxia telangiectasia. Hirsutism on the lower legs and ecchymoses secondary to ataxia and numerous falls.
Cutis marmorata telangiectatica congenita. Vascular lesions resolve with depressed scars.

Erythema nodosum. Tender, red nodules on the pretibial area of an adolescent.
Henoch-Schonlein purpura. Hemorrhagic macules, papules, and urticarial lesions on the foot of a child.

Hereditary hemorrhagic telangiectasia. Telangiectases on the bulbar conjunctiva.

Meningococcemia. Stellate necrotic areas on the legs of a child with meningococcemia.
Alopecia areata is a type of hair loss that occurs when your immune system mistakenly attacks hair follicles, which is where hair growth begins. The damage to the follicle is usually not permanent. Experts do not know why the immune system attacks the follicles. Alopecia areata is most common in people younger than 20, but children and adults of any age may be affected. Women and men are affected equally.

Alopecia areata cannot be "cured" but it can be treated. Most people who have one episode will have more episodes of hair loss. Read more about alopecia areata.
**Onycholysis:** Loosening of the nail from the nail bed, usually starting at the border of the nail. The nail tends to turn whitish or yellowish, reflecting the presence of air under it. The treatment is to trim the nail short, do not clean under the nail, and be patient. It generally takes 2 to 3 months to clear up.

**Fungal nail infection:** The most common fungus infection of the nails is onychomycosis.

Onychomycosis makes the nails look white and opaque, thickened, and brittle. Those at increased risk for developing onychomycosis include:

People with diabetes;
People with disease of the small blood vessels (peripheral vascular disease); and
Older women (perhaps because estrogen deficiency increases the risk of infection); and
Women of any age who wear artificial nails (acrylic or "wraps").

Artificial nails increase the risk for onychomycosis because, when an artificial nail is applied, the nail surface is usually abraded with an emery board damaging it, emery boards can carry infection, and water can collect under the artificial nail creating a moist, warm environment favorable for fungal growth.

Alternative names include tinea unguium and ringworm of the nails.

**Ingrown toenail:** A common disorder that occurs when the edge of the toenail grows into the skin of the toe particularly on the big (great) toe. The corner of the nail curves down into the skin, often due to mis-trimming of the nail, or due to shoes that are too tight. An ingrown toenail can be painful and lead to infection.

Sometimes simply removing the corner of the nail from the skin is enough to cure this problem, although you may need to have this done by a doctor, podiatrist, or foot-care specialist. If there is infection present, that also requires treatment. In some cases the entire nail must be removed. If ingrown toenails are caused by congenital nail malformations, the nail bed can be treated to permanently prevent regrowth. Known also as onychocryptosis and unguis incarnatus.
Clubbed nails. Increased curvature of the nail plate may be due to a wide variety of causes. In this patient, the large, convex nails are a hereditary anomaly and were found to be present in both father and brother. Other causes of clubbing of the nails in children include cyanotic congenital heart disease, cystic fibrosis, and chronic inflammatory bowel disease.

Discoloration of nail plates. Many chemicals can discolor nail plates. Solutions of potassium permanganate and silver nitrate stain nail plates brown-purple and jet black, respectively. In the case illustrated here, the stain derived from resorcinol. Such stains are harmless and can be easily removed by superficial scaling with the edge of a glass slide.
Leukonychia striata. The horizontal white streaks pictured here are the result of abnormal keratinization of the nail plate. The tendency toward leukonychia striata is sometimes inherited in an autosomal dominant fashion. In other cases, it can be attributed to vigorous manicuring, to trauma, or to a wide variety of systemic illnesses. In many patients, there is no obvious cause, and the streaks resolve spontaneously.

Trichotillomania: Compulsive hair pulling. A disorder characterized by the repeated urge to pull out scalp hair, eyelashes, eyebrows or other body hair. It is believed to be related to obsessive-compulsive disorder. Treatment may include cognitive-behavior therapy and medications such as Prozac. From tricho-, hair + Greek till(ein) to pluck, pull out + -o- + -mania.
**Dandruff:** A mild skin condition that produces white flakes that may be shed and fall from the hair.

Dandruff is due to the sebaceous glands overworking. (The sebaceous glands keep the skin properly oiled.)

Another cause of dandruff is **fungus**, especially one called Pitrosporum ovale. (Most people have this fungus, but people with dandruff have more.)

For dandruff, there are several tiers of treatment:

1. First-tier dandruff treatment: A good quality upper-end shampoo (e.g., Paul Mitchell, Aveda, Redken). If several weeks using a good quality shampoo does not stop the dandruff, it can be helpful use the second-tier of dandruff treatment.

The active ingredients approved for dandruff treatment by the U.S. **Food and Drug Administration (FDA)** include tar, pyrithione **zinc**, **salicylic acid**, **selenium** sulfide, sulfur, and **ketoconazole**.

**Ketoconazole**, once only available by **prescription**, was approved in 1997 by the FDA for **over-the-counter (OTC)** sale in the form of Nizoral A-D shampoo. This medication can be helpful for particularly difficult cases, according to some pharmacists.
If dandruff flakes are greasy and yellow, the probable cause is the skin condition known as seborrheic dermatitis; seborrhea is usually associated with redness as well. Dry, thick lesions consisting of large, silvery scales may be traced to the less-common psoriasis of the scalp. These scaly conditions become a hazard only if you scratch to the point of causing breaks in the skin, which can place you at greater risk for infections, particularly from staph and strep bacteria.

The Food and Drug Administration has received complaints from people who have received products marketed as henna temporary tattoos, especially so-called "black henna," at places such as salons and kiosks at beaches and fairs. There have been reports of allergic reactions, skin irritations, infections, and even scarring. "Black henna" may contain the added "coal tar" color, p-phenylenediamine, also known as PPD, which can cause allergic reactions in some people. Henna itself is made from a plant and typically produces a brown, orange-brown, or reddish-brown tint. Other ingredients must be added to produce other colors. Even brown shades of products
marketed as henna may contain other ingredients intended to make them darker or make the stain last longer. While the FDA has approved henna for coloring hair, and PPD is used in cosmetics as a hair dye, neither of these color additives is approved for direct application to the skin.

Spider veins: A group of widened veins that can be seen through the surface of the skin. Their wheel-and-spoke shape resembles a spider. Also known as spider telangiectasia.

Granuloma annulare: The definition of granuloma annulare in one of the standard print medical dictionaries begins: "a benign, usually self-limited granulomatous disease of unknown etiology, chiefly involving the dermis." Translation: This condition usually clears up by itself (it is "usually self-limited); it is not malignant (it is "benign"); we don't have a clue as to what causes it (it is "of unknown etiology"); it affects the layer (the "dermis") of the skin just below the outside layer (the epidermis).
A granuloma is a localized **nodular inflammation** which has a typical pattern when the involved tissue examined under a **microscope**. Annulare comes from the Latin word "anus" meaning ring. Granuloma annulare is thus a ring-like granuloma in the skin.

Granuloma annulare tends to occur in children, predominantly girls.

We recently heard from a viewer who wrote: "I was told my daughter has granuloma alanarra. She has a raised spiral inflammation on her **ankle** with a clear center. It has increased in size by 3 inches (7-8 cm) in the past year. My doctor told us that it would clear on its own. Is this true? Is there another name I should look under?"

There is only one name for this condition to the best of our knowledge -- granuloma annulare -- and that is the name to look under.

Granuloma annulare looks very much as this viewer has described it in his/her daughter.

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**Keloid:** A scar that doesn't know when to stop. When the skin is injured, cells grow back to fill in the gap. Somehow, they normally "know" when the scar tissue is level with the skin, at which point the cells stop multiplying. When the cells keep on reproducing, the result is a what is called a overgrown (**hypertrophic**) scar or a keloid -- a tough heaped-up scar that rises quite abruptly above the rest of the skin. It is irregularly shaped and tends to enlarge progressively.

In other words, keloids are due to an excessive response to **trauma** such as a cut to the skin. In creating a normal scar, **connective tissue** in the skin is repaired by the formation of **collagen**. This occurs in the **dermis** (the layer of skin just below the **epidermis**, the outer layer of skin). Keloids arise when there is too much collagen formed in the dermis during the repair of connective tissue.
To develop keloids, a person must be susceptible to keloid formation. This susceptibility is clearly genetic. For instance, keloids are known to have occurred in 5 successive generations within a single family.

People of African or Asian descent are more likely to get keloids than people with lighter skin. These peoples tend to have keloid susceptibility genes. This tendency to form keloids is important when someone of African or Asian descent is considering elective plastic surgery; the surgery can cause more trouble than it cures.

The dense tumorlike scar was called a "keloid" ("cheloïde" in French) in 1835 by the dermatologist Jean-Louis Albert. However, the word "keloid" was already in use in France as early as 1817, according to the Nouveau Petit Robert Dictionaire. The origin of the term "keloid" is not entirely certain. The Petit Robert attributes it to the Greek word "chele" meaning in French "pince" and in English "a talon, claw, or hoof." Other authorities such as Dorland's Illustrated Medical Dictionary attribute "keloid" to the Greek "kelis", "blemish" or to the Greek "kele", "a rupture."

To learn more, see Keloid.

**Graves disease:** Generalized diffuse overactivity ("toxicity") of the entire thyroid gland which becomes enlarged into a goiter. Graves disease is the most common cause of hyperthyroidism.

There are three components to Graves disease:

- **Hyperthyroidism** (the presence of too much thyroid hormone),
- **Ophthalmopathy** specifically involving exophthalmos (protrusion of the eyeballs),
- **Dermopathy** with skin lesions.
The ophthalmopathy can cause sensitivity to light and a feeling of "sand in the eyes." With further protrusion of the eyes, double vision and vision loss may occur. The ophthalmopathy tends to worsen with smoking. The dermopathy of Graves disease is a rare, painless, reddish lumpy skin rash that of Graves disease is an autoimmune process. It is caused by thyroid-stimulating antibodies which bind to and activate the thyrotropin receptor on thyroid cells.

Graves disease can run in families. The rate of concordance for Graves disease is about 20% among monozygotic (identical) twins, and the rate is much lower among dizygotic (nonidentical) twins, indicating that genes make only a moderate contribution to the susceptibility to Graves disease. No single gene is known to cause the disease or to be necessary for its development. There are well-established associations with certain HLA types. Linkage analysis has identified gene loci on chromosomes 14q31, 20q11.2, and Xq21 that are associated with susceptibility to Graves disease.

Factors that can trigger the onset of Graves disease include stress, smoking, radiation to the neck, medications (such as interleukin-2 and interferon-alpha), and infectious organisms such as viruses.

The diagnosis of Graves disease is made by a characteristic thyroid scan (showing diffusely increase uptake), the characteristic triad of ophthalmopathy, dermopathy, and hyperthyroidism, or blood testing for TSI (thyroid stimulating immunoglobulin) the level of which is abnormally high.

Current treatments for the hyperthyroidism of Graves disease consist of antithyroid drugs, radioactive iodine, and surgery. There is regional variation in which of these measures tends to be used -- for example, radioactive iodine is favored in North America and antithyroid drugs nearly everywhere else. The surgery, subtotal thyroidectomy, is designed to remove the majority of the overactive thyroid gland.

The disease is named for Robert Graves who in 1835 first identified the association of goiter, palpitations, and exophthalmos. Graves disease is also commonly known as diffuse toxic goiter.
Bunion: A bunion is a localized painful swelling at the base of the big toe (the great toe). The joint is enlarged (due to new bone formation) and the toe is often misaligned. It is frequently associated with inflammation. It can be related to inflammation of the nearby bursa (bursitis) or degenerative joint disease (osteoarthritis).

Bunions most commonly affect women. Ballet dancers are prime candidates for bunions. Tight-fitting shoes and high heels can contribute to bunions.

The treatment of bunions includes rest, a change in shoes, foot supports, medications or surgery.
Corns: Corns generally occur on the tops and sides of the toes. A hard corn is a small patch of thickened, dead skin with a packed center. A soft corn has a much thinner surface and usually occurs between the 4th and 5th toes. A seed corn is a tiny, discrete callous that can be very tender if it's on a weight-bearing part of the foot. Seed corns tend to occur on the bottom of the feet, and some doctors believe this condition is caused by plugged sweat ducts.

Calluses: Calluses can develop on hands, feet, or anywhere there is repeated friction - even on a violinist's chin. Like corns, calluses have several variants. The common callus usually occurs when there's been a lot of rubbing against the hands or feet. A plantar callus is found on the bottom of the foot.

Scurvy. Perifollicular hemorrhage on the leg. The follicles are often plugged by keratin (perifollicular hyperkeratosis). This eruption occurred in a 46-year-old alcoholic, homeless male, who also had bleeding gums and loose teeth.
Erythema ab igne. This disorder results from prolonged and repeated exposure to infrared radiation. Historically, and before the advent of central heating, erythema ab igne was seen on the legs of individuals who sat or stood in front of heating devices. In this era, more common causes are hot water bottles and heating pads. The patient used a heating pad for relief from menstrual cramps.

Juvenile xanthogranuloma. This is a common and completely benign cutaneous nodule. Typically, a juvenile xanthogranuloma is firm and dome-shaped. At first, the lesion is reddish, but develops a fairly typical orangebrown hue over time. Most juvenile xanthogranulomas are located on the head or neck, as pictured in these two infants, but the lesions sometimes occur on the trunk or extremities. They may be present at birth, but most develop during the first year of life. Juvenile xanthogranuloma is not associated with abnormalities in serum cholesterol or triglycerides, and the individual lesions undergo spontaneous involution, usually over a period of 1–2 years. A diagnostic biopsy analysis is sometimes needed, but surgical intervention beyond this is certainly not required. Multiple juvenile xanthogranulomas on the skin may be accompanied by intraocular lesions. For this reason, the physician must pay careful attention to the examination of the eyes.