



SKIN DISEASES ON MEDICINE

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<https://www.doi.org/10.5281/zenodo.10472979>

ARTICLE INFO

Received: 02nd January 2024

Accepted: 08th January 2024

Online: 09th January 2024

KEY WORDS

Dermatology, Skin Diseases, Acne, Eczema, Psoriasis, Melanoma, Skincare Practices, Sun Protection, Topical Treatments, Dermatopathology.

ABSTRACT

This comprehensive article delves into the vast spectrum of skin diseases, examining their causes, symptoms, and treatment options. From common conditions like acne and eczema to more complex diseases such as psoriasis and melanoma, the article provides insights into the multifaceted world of dermatology. Special attention is given to preventive measures, skincare practices, and the impact of lifestyle on skin health. Aimed at both medical enthusiasts and individuals seeking practical skincare advice, this article serves as a valuable resource for understanding, managing, and maintaining optimal skin health.

Introduction. Skin diseases are conditions that affect your skin. These diseases may cause rashes, inflammation, itchiness or other skin changes. Some skin conditions may be genetic, while lifestyle factors may cause others. Skin disease treatment may include medications, creams or ointments, or lifestyle changes.

What are the symptoms of skin diseases?

Skin disease symptoms vary significantly, depending on what condition you have. Skin changes are not always due to skin diseases. For example, you may get a blister from wearing ill-fitting shoes. However, when skin changes show up with no known cause, they may be linked to an underlying condition.

Generally, skin diseases may cause:

- Discolored skin patches (abnormal pigmentation).
- Dry skin.
- Open sores, lesions or ulcers.
- Peeling skin.
- Rashes, possibly with itchiness or pain.
- Red, white or pus-filled bumps.
- Scaly or rough skin.
- Diagnosis and Tests

How is a skin disease diagnosed?



Often, a healthcare provider can diagnose a skin disease by visually examining your skin. If looking at your skin doesn't provide clear answers, your provider may use tests such as:

- Biopsy, removing a small piece of skin to examine under a microscope.
- Culture, taking a skin sample to test for bacteria, fungus or viruses.
- Skin patch test, applying small amounts of substances to test for allergic reactions.
- Black light examination (Wood light test), using an ultraviolet (UV) light to view your skin's pigment more clearly.
- Diascopy, pressing a microscope slide against a skin patch to see if the skin changes color.
- Dermoscopy, using a hand-held device called a dermatoscope to diagnose skin lesions.
- Tzanck test, examining the fluid from a blister to check for herpes simplex or herpes zoster.

SKIN STRUCTURE. Skin is an organ that covers the human body. Morphofunctional in the skin in a single state and conditionally three layers: epidermis – skin bark, dermis - the main skin and hypodermis - the layers of subcutaneous fat differ .

The skin is the first of the fetus from the ectoderm and mesoderm layers of the embryo in weeks is formed. Epidermis from fetal ectoderm, and derma from the mesoderm sheet and subcutaneous fat layers to the surface will come. In the 3-4 weeks of the fetus, there is only one in the ultrastructure of the skin layer - cylindrical cells are observed in some areas of the skin, and two in the palm areas.

Cylindrical cells are observed in the floor. Covers the fetus during the 6-7th week of embryogenesis epithelial membrane from two layers - consists of basal and skin – dermis will be. At the age of 7 months, the fetus has a fully developed epidermis.

Floors are observed, palm and heel Freezing areas cells are formed. That's it elastic and collagen fibers during hair, nails, hair follicles occurs.

Epidermis is the multi-layered upper part of the skin, consisting of 5 layers of cells will be formed. Cells differ from each other in shape, number and differs in functional status. The basis of the epidermis is basal or basic layer (Stratum basalis), followed by spiny (Stratum spinosum), granular (Stratum granulosum), shiny-transparent (Stratum lucidum) and stratum corneum are distinguished. External the cells of the cornea are constantly moving and renewing. For this reason the ice layer is conditionally divided into two layers: somewhat dense layer of frozen keratinocytes - located on the surface of the transparent layer and also known as binder; surface layer - easy to move, solid consists of keratinocytes.

Basal composed of a number of prismatic cylindrical cells. Under the layer and at the border of the dermis, basement membrane cells arises from stellate tumors. Basal membrane epidermis and provides a strong connection of the skin. Keratinocytes of the basal layer are constantly multiplying and in a state of mitotic process (that's why these cells have a lot of cytoplasm Structures that store DNA and RNA - ribosomes and mitochondria has) and this activity is the formation of structures of the upper layers of the epidermis and ensures that it is updated. Among the cells of the basal layer melanocyte cells that produce melanin pigment, white tumor-like epidermocytes - Langerhans cells and sensory cells (Merkel cells) are located.



On the surface of the basal layer, it consists of 3-8 rows of cells a spinous layer is located. These cells are highly cytoplasmic. It has symbionts (thorns or bridges, acanthus). The cells are dense the cell membrane has tonofibrils and tonofilaments. Cytoplasmic tumor (acanthus) cells are connected to each other and channels between them forms a mesh, and from these meshes are intercellular fluids circulates .

Desmosomes and tonofibrils are the internal scaffolding of cells provides, protects cells from mechanical injuries. In the spinous layer there are white tumor-like epidermocytes because, together with keratinocytes, they are immune-protectors function. A product of keratohyalin in the protoplasm of granular layer cells secretion of a factor that ensures the growth of epidermal cells reduces, substances that stop mitotic division, polypeptide keys leads to accumulation. In basal, spiny and granular layer cells due to the presence of mitotic division, these layers are often generalized. It is also called the growing layer of the epidermis (malpighium layer).

Keratohyalin in the cells of the granular layer, in the process of keratinization eleidin substance is formed, and from it a transparent layer that keeps eleidin occurs. This layer is clearly visible in the skin of the palms and soles. Eleidin Keratinocytes are formed from the substance, they are the skin of the epidermis forms a layer.

The mucous layer is rather thick and consists of cells that are densely attached to each other.

The surface cells of the cornea are constantly moving and renewing. Epidermis protein synthesis, pigment formation, protection and performs an immunological function.

Derma or main skin (original, cutis propria) cellular elements, fibrous consists of substances and intermediates. The thickness of the skin It is 0.49-4.75 mm. The connective tissue part of the skin conditionally divided into two layers: surface, subepidermal - papillary layer (Stratum papillare) and deep reticular layer (Stratum reticulare). The upper layer of the dermis is the epidermis penetrates under it and forms suckers under the spinous and basal layer.

This layer consists of amorphous, structureless substances and fine fibrous connective tissue consists of tissue. Among them, many cell elements, veins, nerve endings are located. Cellular elements of medicine fibroblasts, fibrocytes, histiocytes, mast cells and special consists of pigment cells - melanophages. In derma suckers small blood vessels are located in the epidermis, dermis and they feed the nerve endings. The deep reticular layer of the dermis is somewhat dense and coarsely fibrous is the main part of the drug. Derming stromasj collagen is made up of bundles of fibers, which are a network of elastic fibers surrounded by, and cell elements are observed between them. of the skin strength depends on the mesh floor structure.

Hypodermis or subcutaneous fat layer. This floor is stacked against each other consists of bundles of loose connective tissue. These are collections Between them, spherical fat cells of different sizes are stored. Blood vessels, nerve fibers, nerve endings, sweat glands, hair in the hypodermis follicles are located. Hypodermis ends with fascia, in some cases fused with periosteum or muscle aponeurosis.



Blood and lymphatic system. Arteries feeding the skin hypodermis in its lower parts, it forms a net of wide bundles of veins. This is from the nets and the branches spread in the month. they come together and connect with each other.

Arterioles are separated from the vessels. skin suction arteriole brings. The density of capillaries in this area is 16-66 per square meter of skin constitutes a capillary.

BASIC FUNCTIONS OF THE SKIN. The skin is the outer covering of the body and is quite complex performs physiological functions. Active participation in skin metabolism mainly water, minerals, fat, carbohydrates, vitamins and energy in exchanges. The skin participates in the vital process of the body performs a number of necessary functions: immune, protective, secretory, respiratory, resorption, thermoregulatory, receptor, exchange and others.

Protection function. The protective properties of the skin are different mechanical, light, protects the skin and the whole body from the effects of microorganisms. Its thick crust protects the skin from drying out. Muguz the floor is resistant to weak physical and chemical effects. Various protection against microbes, frozen, migratory epithelium, sweat and sebaceous gland secretions. On the skin Sterilization and alienation due to acidic fresh water-oil film absorption of the substance can be stopped. This is a water-lipid mantle at the same time preventing the entry of microorganisms, lower molecular fatty acids - do not allow the growth of pathogenic flora.

Melanin, which has the ability to absorb ultraviolet rays due to being on the skin, the skin is damaged by sunlight protects from its effects. Breathing-exhalation and resorption function. Resorption of the skin characteristic of the functional activity of oil-hair follicles, water-oil mantle depends on the condition and the thickness of the ice layer. On the skins of the palms and heels due to the presence of physiological hyperkeratosis and the absence of sebaceous glands resorption property is weak.

In areas with a large number of sweat-sebaceous glands, the stratum corneum is less developed resorption properties of the skin are good: drugs are applied (in oils soluble medicinal substances - iodine, diphenhydramine, resorcinol, salicylic acid and others). Oxygen absorption and carbon dioxide release through the skin observed in very small quantities.

Thermoregulator function. Ensuring constant body temperature, adaptation mechanisms are different. Epidermis of the ice layer in addition to low heat transfer properties, dermis and hypodermis fiber substances are also significant. It is important blood-lymphatic circulation and sebaceous glands features.

Sweat glands produce sweat and cool the skin, relative body temperature ensures continuity. The secretion of eccrine sweat glands is liquid moisture In addition to saline reaction water, various dissolved inorganic and organic stores substances. Drugs from the body through sweat - iodine, bromine, mercury, quinine, antibiotics will come out. 750 per day on average 1000 ml of sweat is released, and when high temperature is observed, up to several liters sweat may break out. The excretory function of the skin is observed together with the secretory function. Together with sweat-oil⁴ secretions, organic, inorganic substances, minerals along with metabolism, carbohydrates, vitamins, hormones, enzymes, trace elements and a lot of water are released. Sweating is continuous, continuous movement, invisible sweat separation and mo⁷ ter separation are distinguished. Exchange function. Depot substances of the skin exchange is of great importance. Connective tissue cells, elastic,



collagen and argyrophilic fibers, hydrophilicity of the subcutaneous fat layer due to the nature of the fluid in the cells and in the intercellular areas, minerals, vitamins, trace elements remain in the skin carbohydrates, cholesterol, iodine, bromine, amino acids and various slags is stored. This leads to general metabolic disorders various pathological processes are observed in the skin. Liver dysfunction incessant skin itching, pyogenic rashes are observed in latent diabetes.

Vitamins have a great effect on the condition of the skin. Vitamin B group keeps the course of the oxidation-reduction process in the norm. P P vitamin provides the separation of metabolites and detoxification. Ah Ye Vitamin D is considered an anti-infective factor and protein metabolism activates, normalizes the keratoplasty process, inflammation provides epithelial regeneration in the processes.

Causes of skin diseases. (Etiology and pathogenesis)

Skin tissue is a constantly growing, differentiating and regenerating organ. Disturbance in these processes of the skin is different the reason for the change of functions, and as a result, various dermatoses will be Adaptation-compensation mechanisms go out of control, skin will not be able to perform its function properly. In this except for skin changes caused by an unconditioned effect. Such effects cause a specific reaction on the skin. Usually, it is high concentration acids, alkalis, light a large amount of energy, including X-rays, high and lower temperatures are an example. The skin is constantly exposed to the external environment (exogenous) or (endogenous).

It is caused by pathological factors. Endogenous factors as a whole due to the disease of the body or changes in some organs and systems occurs. It is also worth saying that diseases are often external and it is caused by the combined effect of internal factors, in some cases and it is formed by the influence of several exogenous factors, one of which is disease one that prepares for the origin, and another that directly causes disease can serve as (for example, the development of pyoderma).

Exogenous-etiological factors include mechanical, thermal, light, chemical substances and various infectious agents. Endogenous-etiological factors are distinguished by their diversity. These include internal organs diseases, especially liver, gastrointestinal diseases, substances metabolic disorder, endocrine, nervous system, hemopoiesis, vascular system, genetic factors and others are of particular importance. For example, phrynderma, nicotine as a result of vitamin A deficiency lack of acid causes pellagra and other diseases. Psychogenic and central nervous system in the occurrence of dermatoses Caused by changes in (MAT) and autonomic nervous system possible Eczema, urticaria, skin itching It is already known that the primary changes of MAT lie: this changes occur due to psychological factors. Vegetative nerve as well as the occurrence of various dermatoses due to changes in the system known to science.

The activity of endocrine glands contributes to the occurrence of dermatoses may cause changes. For example, skin myxedema encountered in patients with thyroid disease, Addison

In the case of the disease, the skin turns bronze, the sex of the common scaly connection with glandular activity. Etiology and pathogenesis of a number of diseases with immune changes dependence is observed. First of all, these changes are allergic and due to autoimmune processes. The role of focal infection in the pathogenesis of some diseases is



significant: for example, chronic tonsillitis, sinusitis, otitis, carious teeth, etc. Focal infection causes sensitization of the body, on the other hand, reducing humoral immunity and immune can cause shortages. Urinary tract infections, various types of exudative erythema, psoriasis, erysipelas and other dermatoses importance in pathogenesis is confirmed. In the occurrence of a number of diseases m is to a certain extent hereditary factors are important. In particular, ichthyosis, pigmented xeroderma, bullous epidermolysis, keratoderma, atopic dermatitis, psoriasis and other diseases among them. Some diseases are tumors and metastases of infectious diseases as a result of or as a result of the transfer of diseases of the subcutaneous tissue to the skin can occur (for example, a type of skin tuberculosis - scrofuloderma). It should also be noted that the etiology of some dermatoses and pathogenesis has not been fully studied. Pathogenesis of skin diseases is diverse and complex, nervous, in addition to genetic predisposition, in the pathogenesis of many diseases, mainly to the body's natural resistance and changes in the immune system also depends. If the allergic factor plays a major role in the pathogenesis of some diseases, an autoimmune process in a red, scaly rash, and another secondary cell immunodeficiency is important in dermatosis is enough.

Bacterial infections:

Cellulitis – common infection caused by bacteria entering a break in the skin. It causes swelling, pain and redness. If it is not treated, cellulitis can be very serious, especially if it infects the eye. Mild cellulitis on a small area of skin can usually be successfully treated with antibiotics.

Impetigo – highly infectious and itchy, it tends to manifest as red sores. It is more commonly seen in children and babies than adults. It can appear anywhere on the body, but is more common around the nose and mouth. Topical treatments, as well as oral antibiotics are used to treat impetigo.

Boils and carbunkles – infections of hair follicles or oil glands that develop as a sore lump over a few days, eventually filling with pus. A carbunkle is a painful concentration of boils linked to each other beneath the skin. If these boils/carbunkles become very large and painful, your doctor may need to drain it. Antibiotics may be prescribed if the patient suffers from recurrent infections, or if they are particularly severe.

Staph infection – caused by Staphylococcus entering and infecting a cut in the skin. Varies in severity from simple boils to flesh-eating infections. Depending on the severity, antibiotics may be prescribed to help clear up the infection, but these often go away on their own.



Viral infections:

Warts – generally harmless lumps caused by a virus that usually clear up without treatment, but take a long time to do so. There are also a number of treatments available, including freezing them, acid treatments, laser treatments or peeling medicine.

Verrucas – A type of wart that commonly appears on the foot (plantar wart). They sometimes have a black dot in the middle of them, and can cause a lot of pain when walking. Most verrucas go away on their own, but if they are painful you may want to remove them. There are a number of different gels, ointments and creams available to treat verrucas. They can also be frozen.

Cold sores/herpes – caused by the herpes simplex virus, these wart-like sores usually appear on the mouth or genitals. They are very contagious, so you should avoid kissing people or having sex until the sore has completely healed. This usually takes about 10 days, but there are also antiviral medications and ointments available to treat them.

Chickenpox – a common infectious disease known for the red, itchy spots it causes. It is most common among children, but can affect people of any age. It can also cause fever or aches and pains. They are very contagious and your child must stay home from school if they have chicken pox. It usually takes 2 weeks for chicken pox to heal. A number of topical treatments can help ease symptoms.

Shingles – a reactivation of the dormant chickenpox virus, shingles causes clusters of painful blisters. It only occurs in people who have already had chickenpox. It can take up to a month for a shingles rash to heal. Paracetamol or other painkillers can be taken to help ease the painful symptoms.

Fungal infections:

Ringworm, including athlete's foot. Not a worm, as its name suggests, it usually appears as a red, scaly patch that itches. It may appear in a ring or bump. It can be treated by antifungal creams or powders.

Yeast infection (candidiasis) – caused by the candida fungus, which naturally appears in small amounts on the body. Infections occur when the yeast builds up and grows out of

control. Infections in the mouth and throat are called thrush. Yeast infections can be treated with antifungal creams, powders or medication.



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