



Dermatological Disorders: A Comprehensive Review

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ABSTRACT:

Dermatologic diseases cover a broad spectrum of skin disorders ranging from benign rashes to debilitating infections affecting not only the physical but also the mental health. These diseases may be due to numerous causes such as infections, allergens, systemic illness, or medication, and their severity may vary from transient to long-term. Most skin diseases are not fatal but could drastically influence the quality of life, social relationships, and emotional status.

Introduction:

Dermatological diseases, or skin disease, include a broad category of conditions that involve the skin. It is a general term to refer to conditions involving the skin.

Skin:

The skin is that which covers the outside surface of the body and is the body's largest organ.

It serves as a protective covering for the environment, helping to maintain body temperature, helping sensation, and assisting in vitamin D production, besides being involved in excretion and immunity and serving as a sensory organ.

Structure of skin:

There are three major layers of the skin:

Epidermis:

- The outer layer of skin that acts as a barrier to guard the underlying tissues against physical damage, harmful chemicals, UV light, and infection.

- It is primarily composed of keratinocytes, which secrete keratin, a protein that aids in waterproofing and protecting the skin.

The epidermis also includes:

- Melanocytes: Cells that secrete melanin, the pigment which determines skin color and protects against UV light.
- Langerhans cells: Immune system components, they assist in the detection of pathogens.
- Merkel cells: Responsible for sensation of touch.

The epidermis contains a number of sub-layers:

- Stratum corneum: The outermost layer, which consists of dead, flattened skin cells.
- Stratum lucidum: Found only in thick skin (such as the palms of hands and soles of feet).
- Stratum granulosum: Where cells start to die and create a protective barrier.
- Stratum spinosum: Characterized by its spiny appearance because of the attachments between cells.
- Stratum Basale: The bottom layer, in which new skin cells are produced.

Dermis:

The middle layer of the skin, underneath the epidermis.

It is significantly thicker than the epidermis and has:

- Collagen and elastin fibers: These give the skin strength, elasticity, and durability.
- Blood vessels: These supply the skin with oxygen and nutrients and aid in thermoregulation.
- Nerve endings: These sense pain, touch, pressure, and temperature.
- Hair follicles: The hair growth root.
- Sweat glands: These produce sweat to help regulate body temperature.

- Sebaceous glands: These secrete sebum, an oily substance that keeps the skin lubricated and prevents it from drying out.
- Hypodermis (Subcutaneous Layer):

- The deepest layer of the skin, consisting mostly of adipose tissue (fat).
- It acts as an insulator, helping to maintain body temperature and providing cushioning to protect muscles and bones.
- The hypodermis also contains larger blood vessels and nerve.

Schematic representation of skin

Dermatology, the branch of medicine that studies these conditions, focuses on diagnosis, treatment, and prevention, encompassing both medical and surgical aspects.

They can vary from benign skin rashes to septic skin infections or skin cancers which can happen due to: infections, autoimmune disorders, allergens, heredity, lifestyle habits, systemic diseases or drugs. These conditions can exist in the form of rashes, lesions, pigmentation, dryness, itching, and edema.

Some dermatological conditions are temporary and may resolve on their own, while others can be chronic and require ongoing treatment. Common dermatological disorders include acne, eczema, psoriasis, rosacea, skin infections (such as fungal or bacterial infections), and skin cancer.

The symptoms and severity of these conditions can vary greatly, with some affecting only the surface of the skin and others impacting deeper tissues.

Accurate diagnosis and management of dermatological conditions are crucial to alleviate the symptoms, avoid complications, and enhance the well-being of affected individuals. Management could include topical creams, oral drugs, lifestyle changes, or even surgery based on the type and severity of the condition.

Besides physical manifestations, skin diseases may sometimes impact a person's psychological state because of the outward nature of skin ailments. Thus, an overall treatment plan usually takes into account both physical and mental well-being.

Prevalence and impact

Prevalence:

High Global Burden: Skin diseases constitute a major public health problem, affecting about one-third of the world's population.

Common Conditions: Common dermatologic diseases include infections (fungal, bacterial, viral), infestations (scabies, pediculosis), and inflammatory conditions such as eczema, psoriasis, and acne.

Age and Location: Dermatologic diseases can affect all ages and cut across cultures and socioeconomic status.

Some of the most common dermatologic conditions are:

- Infections: Fungal skin infections, bacterial skin infections, and viral skin infections are common and account for a large portion of disease burden.
- Infestations: Scabies and pediculosis (lice) are prevalent, particularly in developing nations.
- Dermatitis: Atopic dermatitis (eczema) and seborrheic dermatitis are frequent inflammatory disorders.
- Psoriasis: Psoriasis is an inflammatory skin and joint disease, with a bimodal age pattern of onset.
- Acne: Acne is a frequent skin disorder, especially in adolescents and young adults.
- Eczema (Atopic Dermatitis): Afflicts around 10-20% of children and 1-3% of adults globally.
- Skin Cancer: Non-melanoma skin cancer (basal cell carcinoma and squamous cell carcinoma) is extremely prevalent, whereas melanoma occurs in about 1 in 50 individuals across the world.
- Rosacea: A chronic inflammatory skin disorder that mostly hits the face, leading to redness, visible blood vessels, and sometimes acne-like bumps, with symptoms tending to flare up and then improve. It affects around 5% of the population, more frequently in fair skin and the age range of 30 to 50.
- Vitiligo: Impacts nearly 1% of the world's population.

Impact:

Physical Impact:

Symptoms like itching, pain, and swelling can drastically impact the quality of life.

Conditions such as eczema and psoriasis can have chronic flare-ups, resulting in persistent discomfort. Acne can cause scarring and changes in skin pigmentation even after the acne resolves.

People with visible skin disorders tend to experience more stress, anxiety, and depression. Dissatisfaction with body image is prevalent, particularly in adolescents and young adults, resulting in social withdrawal and lower self-esteem. Rosacea or severe acne can have a serious effect on an individual's self-esteem.

Psychosocial Impact:

Chronic and visible skin disorders may result in feelings of shame, anxiety, and depression.

Social and Economic Impact:

Individuals with observable dermatological conditions can experience social stigma, which can result in discrimination or isolation in personal and professional life. Lost productivity because of discomfort, treatment time, or psychological impacts like low self-esteem is another major concern. For

instance, eczema and psoriasis can lead to work or school days lost. The cost of treatment for chronic dermatological conditions can be high, particularly for conditions that need long-term treatment like biologic therapy for psoriasis.

Health-Related Quality of Life:

Dermatologic diseases have been found to have a significant impact on quality of life. Diseases such as psoriasis and eczema can result in physical impairment (e.g., sleep disturbance, discomfort due to itching) and emotional distress, impacting social relationships and overall well-being. The psychological impact, such as self-consciousness regarding appearance and worry about the chronic nature of certain conditions, can have a negative effect on overall life satisfaction.

Economic Burden:

The high incidence of skin conditions can overwhelm health care systems, especially in low-resource settings.

Specific Examples:

•\tPsoriasis: May lead to great pain, itching, and disfigurement, which results in compromised quality of life and mental distress.

•\tAcne: May result in scarring and mental distress, especially in adolescents.

•\tFungal skin infections: May result in intense itching, pain, and disfigurement, especially in the immunocompromised.

•\tScabies: May create severe itching and irritation of the skin, resulting in sleep disturbances and social withdrawal.

Symptoms:

Skin disease symptoms are quite different depending upon what you have. Symptoms on your skin that appear because of routine issues aren't necessarily caused by a skin disorder. These types of symptoms might be blisters from new footwear or chafing from tight trousers.

More often than not, symptoms of a skin disorder are:

1.Apparent Skin Changes:

- \tRash: Red, inflamed, or blotchy patches.
- \tDiscoloration: Lighter or darker patches (hypopigmentation/hyperpigmentation).
- \tBumps or Lumps: Papules, nodules, or cysts.
- \tBlisters: Fluid-filled sacs that can burst and crust.
- \tScaling or Flaking: Dry, peeling skin.
- \tCrusting: Dried serum, blood, or pus on the skin surface.
- \tThickened Skin: Often due to chronic scratching or rubbing (lichenification).
- \tScaling or Flaking: Shedding of dead skin cells, making the skin look scaly or flaky.
- \tDandruff: Flaking of the scalp skin.

2.Sensory Symptoms

- \tItching (Pruritus): May be severe and result in scratching.
- \tBurning or Stinging: Common in allergic or irritant contact reactions.
- \tPain or Tenderness: In infected or inflamed tissue.
- \tBlisters: Fluid-filled blisters on the skin that are itchy and tender.
- \tHives (Urticaria): Raised, itchy welts on the skin that occur and disappear rapidly.

3.Skin Surface Abnormalities:

- \tUlcers: Open sores which are difficult to heal.
- \tOpen Wounds: Cuts, abrasions, or chronic wounds.
- \tPustules: Pus-filled pimples (e.g., acne).
- \tComedones: Blackheads and whiteheads.
- \tSwelling (Edema): Fluid accumulation in the skin, making it puffy or swollen.

4.Other Symptoms:

- \tHair Loss (Alopecia): May be patchy or diffuse.
- \tNail Changes: Discoloration, thickening, ridging, or separation.
- \tExcessive Sweating: Primary hyperhidrosis or secondary due to another condition.
- \tPhotosensitivity: Response to exposure to sunlight.

Dermatological diseases may develop based on a variety of causes. Some of the most frequent causes are given below:

1.Genetics:

- **Inherited Conditions:** Certain skin diseases are inherited, which means parents may pass them down to their children. Some examples include eczema (atopic dermatitis), psoriasis, and specific types of acne.
- **Skin Type:** Individuals with fair skin are more prone to conditions such as melanoma and sunburn, whereas individuals with dark skin can experience conditions such as keloids or post-inflammatory hyperpigmentation.

2.Environmental Factors:

- **Sun Exposure:** Chronic exposure to ultraviolet (UV) radiation from sunlight can cause sunburn, premature aging, and skin cancers such as melanoma.
- **Climate and Weather:** Dry, cold air can result in dry skin, eczema, or dermatitis. Conversely, hot, humid conditions might result in diseases such as fungal infections, acne, or rashes due to sweat.
- **Pollution:** Exposure to toxic substances such as smoke, dust, and chemicals may cause irritation to the skin, result in early aging, or result in diseases like eczema or acne.

3.Infections:

- **Bacterial Infections:** Bacterial infections such as impetigo, cellulitis, and folliculitis are caused by bacteria (e.g., Staphylococcus or Streptococcus species).
- **Viral Infections:** Viral infections may lead to rashes or sores, e.g., herpes simplex (cold sores), chickenpox, or shingles.
- **Fungal Infections:** They include athlete's foot, ringworm, and yeast infections that tend to affect damp or warm regions of the skin.
- **Parasitic Infections:** Scabies, lice, and other infestations by parasites may produce itching, rash, and other skin conditions.

4.Immune System Disorders:

- **Autoimmune Diseases:** Diseases such as lupus, psoriasis, and vitiligo develop when the immune system targets the skin or other bodily components.
- **Allergic Reactions:** Allergic skin reactions (such as hives or contact dermatitis) are brought on by certain foods, drugs, or plants.
- **Inflammatory Disorders:** Chronic diseases like eczema and psoriasis involve inflammation of the skin and can be worsened by immune system malfunction.

5.Hormonal Changes:

- **Puberty:** The changes in hormones that happen during puberty tend to bring about acne because of the heightened oil secretion by the skin, which clogs pores.
- **Pregnancy:** Pregnancy hormonal changes may give rise to melasma (skin darkening) or stretch marks.
- **Menopause:** Menopausal hormonal changes may lead to thinning of the skin or dryness.

6.Lifestyle and Diet:

- **Diet:** An unhealthy diet that is sugar- or processed food-rich can lead to acne and other dermatological conditions. Alternatively, a balanced diet full of vitamins and antioxidants can help nourish the skin.
- **Stress:** Stress, which is emotional in nature, can cause outbreaks on the skin like acne, eczema, or psoriasis.
- **Sleep:** Lack of proper sleep can result in skin problems like dark circles, pale skin, or more breakouts.

7.Chemical and Cosmetic Products:

- **Irritants:** Tough skin care products or chemicals can result in rashes, allergic reactions, or irritation. Examples are some cosmetics, soaps, or fragrances.
- **Overuse of Cosmetics:** Overuse of makeup or comedogenic products (pore-clogging products) may cause acne or other complexion problems.

8.Medications:

- **Side Effects:** Some drugs may bring about skin effects like acne, rashes, photosensitivity, or acne. Examples are diuretics, certain antibiotics, or chemotherapy.
- **Topical Medications:** Topical drugs such as corticosteroids, when used in excess, result in thinning of the skin or result in conditions like rosacea.

9. Changes Related to Age:

- **Aging Skin:** Skin grows thinner, drier, and more susceptible to wrinkles, age spots, and other conditions like seborrheic keratosis with age.

10.Lifestyle Habits:

- Smoking: Smoking limits blood circulation to the skin and may cause premature aging, wrinkles, and a lackluster complexion.
- Alcohol Use: Heavy drinking dries out the skin, increasing its susceptibility to irritation and aging.

11.Trauma or Injury:

- Cuts, Burns, and Scrapes: Physical damage to the skin can result in scarring, infection, or other problems if left untreated.
- Pressure Sores: Repeated pressure on areas of skin, usually as a result of immobility for long periods of time, may cause bedsores.

12.Psychosomatic Factors

- Mental Health: Psychological disorders, like depression or anxiety, can appear as dermatological symptoms, e.g., hair loss (alopecia), skin picking (dermatillomania), or rashes.

13.Disease Factors:

- Diabetes: Most individuals with diabetes have a skin issue due to their condition at some time. bacterial infections, e.g., boils, styes, and folliculitis, fungal infections, e.g., athlete's foot, ringworm, and yeast infections
- Inflammatory bowel disease: Inflammatory bowel disease refers to a collection of intestinal diseases that lead to chronic inflammation of the gastrointestinal tract. The diseases of the bowels frequently lead to skin diseases such as psoriasis.

Diagnosis:

Diagnosis of dermatological disorders requires a combination of visual inspection, history of the patient, and possibly specialized investigations such as biopsies, cultures, or patch testing to determine the cause and nature of skin diseases .

Here is a more detailed account:

1. Initial Assessment:

- Visual Examination: A dermatologist will visually examine the skin carefully to observe the size, shape, color, and site of any abnormalities or lesions.
- Patient History: In-depth medical history, such as family history for any skin diseases, allergies, medications, and contact with irritants, is essential.
- Mucocutaneous Examination: The assessment may be taken to the scalp, nails, and mucous membranes.
- Palpation: They may palpate the texture of skin or lesion, for tenderness and elevation or thickness.

2. Diagnostic Tools and Tests:

- Dermoscopy: A hand-held instrument with a magnifying lens and an incorporated light to more clearly see skin lesions, particularly moles or growths, in order to determine possible skin cancers.
- Skin Biopsy: A tiny piece of skin is removed and analyzed under a microscope to determine the source of the condition.
- Skin Scrapings: To analyze skin cells for parasitic or fungal infections.
- Culture: Skin samples are collected to determine the presence of bacteria, fungi, or viruses.
- Patch Tests: A small quantity of substances is placed on the skin to check for allergies.
- Wood's Lamp Examination: Utilizes ultraviolet (UV) light to better see skin pigment.
- Tzanck Smear: Testing fluid in a blister for herpes simplex or herpes zoster.
- Diascopy: Squeezing a microscope slide onto a skin spot to observe whether the skin turns color.
- Other tests: Based on the suspected diagnosis, other tests such as blood tests or imaging scans could be required.

3. Patient History

- Medical History: There should be an extensive review of the patient's medical history.

Dermatologists will inquire about: Onset of the disorder, Past history of skin problems or similar episodes, known allergies, Use of medications (which may affect the skin disorders), Family history (such as history of disorders like eczema or psoriasis).

4. Differential Diagnosis

- Dermatologists utilize their knowledge in differentiation of different disorders with similar presentations. For instance, differentiation between eczema and psoriasis or differentiation between various types of dermatitis.

5. Common Dermatological Disorders

Following are some examples of skin conditions and how they are diagnosed:

- Eczema (Atopic Dermatitis): Diagnosed on the basis of a history of dryness, itch, and typical rash. Patch test or blood test can exclude allergy.

- \tPsoriasis: Typically diagnosed by clinical presentation of thick, scaly patches, most commonly on elbows, knees, and scalp. Biopsy can distinguish it from other conditions.
- \tAcne: Characterized by the visibility of comedones (blackheads and whiteheads), pustules, and cysts on the face, back, and chest.
- \tSkin Cancer (Melanoma, Basal Cell Carcinoma, Squamous Cell Carcinoma): Clinical examination, dermatoscopy, and biopsy are used for diagnosis.
- \tFungal Infections (Tinea, Athlete's Foot): Diagnosed by skin scrapings and cultures to detect fungi.

TYPES OF DERMATOLOGICAL DISORDERS:

DISEASES	LOCATION	SYMPTOMS	CAUSES
1. INFLAMMATORY SKIN DISORDERS			
Eczema	Inner elbows, behind the knees, neck, wrists, ankles, hands, feet, face (especially cheeks), and in and around ears.	Dry, cracked skin, itching, and red, swollen rashes. Small, raised bumps or fluid-filled blisters can also occur.	It is a combination of genetic and environmental or immune system factors.
Psoriasis	Scalp, elbows, knees, and lower back.	Red raised, and scaly patches of skin, often on the elbows, knees, and scalp, which can be itchy, painful, and may cause nail changes.	It is a combination of genetics and environmental factors.
Seborrheic dermatitis	Typically appears in areas with oily skin and a high concentration of sebaceous glands like scalp, eyebrows, eyelids, nose, behind the ears, and the middle of the chest.	Flaky, white to yellowish scales, often appearing as dandruff on the scalp	It is due to the overgrowth of the yeast <i>Malassezia</i> on the skin, increased oil production, and potentially genetic or immune system factors, as well as being aggravated by stress, certain medical conditions, or harsh skin care products.
Contact dermatitis	Hands, face (especially the eyelids and lips), and areas where jewelry or clothing touches the skin. It can also occur on the neck, lower legs, and feet.	Red, itchy, and sometimes blistered skin, which may also be swollen, dry, cracked, or scaly.	Allergens or irritants.
Rosacea	It commonly affects the central region of the face, including the forehead, cheeks, chin, and the lower half of the nose.	Facial redness, often accompanied by visible blood vessels and small bumps resembling pimples.	It is due to the genetics, microorganism, hormones, environmental triggers, immune system dysregulation, and environmental factors.
Urticaria	occur anywhere on the body, including the face, lips, tongue, throat, and ears.	raised, itchy bumps or welts that appear and disappear rapidly.	allergic reactions, infections, physical trigger, stress, environmental factors and certain medications.
Latex allergy	It occurs anywhere someone is exposed to latex, like Hands and arms, Face and eyes, Mouth or throat, Genital area	itching, rashes, red, itchy, or swollen skin, difficulty breathing, wheezing, and even anaphylaxis.	most common cause is contact with latex products like gloves, condoms, and balloons. inhalation of particles, or sometimes even by eating foods that contain similar proteins.
2.INFECTIOUS SKIN DISORDERS			
A. BACTERIAL			
Impetigo	The skin that are exposed to friction or injury, Face, Arms, Legs, Hands, Around the diaper area (in infants), Skin folds, around the mouth, chin, and nose.	Reddish sores, often around the nose and mouth, Blisters that may be clear, then cloudy, Honey-coloured crusts after blisters burst, Possible itching or pain, In rare cases, fever and swollen lymph nodes.	Mainly caused by bacteria like <i>Staphylococcus aureus</i> or <i>Streptococcus pyogenes</i> , Poor hygiene, crowded living conditions, and skin injuries, Warm and Humid Environments
Folliculitis	Face, especially beard area, Neck, Back, Arms, Legs, Buttocks, Scalp, Groin, Areas where hair is shave.	Red bumps or white-headed pimples around hair follicles, Itching or burning, Tenderness or pain Clusters of small red or pus-filled bumps, Crusting or scabbing if they break open, In severe cases: boils or deep	Bacterial or fungal infections(<i>Staphylococcus aureus</i> is a common), Irritation from shaving, waxing, or other hair removal methods, Tight clothing that traps sweat and heat, Excessive sweating, contact with contaminated water

		abscesses	(e.g., hot tubs), Improper shaving techniques, Underlying skin conditions like eczema, Compromised immune system, Nutritional deficiencies (vitamin A or C).
Carbuncle	Back of the neck, Thighs, Shoulders, Armpits, Buttocks, Any area where there's friction or sweating.	Multiple painful, red, swollen bumps, Pus drainage from multiple heads, Fever, chills, and fatigue, Redness, irritation, and pain when touched, Weeping, oozing, or crusting.	Bacterial infection, most commonly Staphylococcus aureus (staph), Bacteria entering the skin through a hair follicle, small cut, or scratch, Areas of friction are more prone to infection.
B. VIRAL			
Herpes simplex	<p>Oral Herpes (HSV-1): Typically manifests as cold sores or blisters around the mouth, lips, and sometimes on the face or nasal cavity.</p> <p>Genital Herpes (HSV-2): Usually causes blisters and sores around the genitals, anus, or thighs.</p> <p>Other Locations: HSV can infect other areas like the eyes (herpes simplex keratitis), fingers (herpes whitlow), or even the brain (herpes simplex encephalitis)</p>	<p>Painful blisters or sores at the infection site, Itching or tingling before blisters appear, Swollen lymph nodes, Fever, fatigue, body aches (especially during the first outbreak), Pain during urination (genital herpes), Discharge (genital herpes)</p>	Skin-to-skin contact, Vaginal, anal, or oral sex, sharing personal items like razors or lip balm (less common), From mother to baby during childbirth (neonatal herpes)
Warts	<p>Common warts: Hands, fingers, and around nails.</p> <p>Plantar warts: Soles of the feet.</p> <p>Flat warts: Face and hands.</p> <p>Genital warts: Genital area.</p>	<p>Small, grainy skin growths rough texture, Flesh-coloured, white, pink, or brown, Black dots in the centre (clotted blood vessels) pain (especially plantar warts), Itching or discomfort, Flat warts may appear in large numbers.</p>	<p>Caused by HPV (Human Papillomavirus) There are over 100 types of HPV; different types cause different kinds of warts</p> <p>Spread through:</p> <p>Direct skin-to-skin contact, Touching contaminated surfaces (showers, gym floors, towels), Skin breaks or cuts make infection more likely, Nail biting or shaving can spread the virus, Genital warts are sexually transmitted.</p>
Chickenpox	<p>Starts on: Chest, Back, Face</p> <p>Spreads to: Scalp, Arms and legs, Inside the mouth, eyelids, or genitals (in more severe cases).</p>	<p>Main symptom: Itchy rash that goes through three stages: Red bumps (papules), Blisters (vesicles) filled with clear fluid, Scabs after blisters break</p> <p>Other symptoms: Sore throat, Muscle aches, Irritability, Possible ulcers in the mouth, Fever, Fatigue, Loss of appetite, Headache.</p>	<p>Virus: Caused by the varicella-zoster virus (VZV)</p> <p>Highly contagious: Spreads in several ways: Airborne: Coughing, sneezing, Direct contact: With the fluid from the blisters, Indirect contact: With contaminated objects (like clothing or bedding).</p>
Measles	<p>Affect both the skin and internal systems</p> <p>Starts on the face, especially near the hairline, Spreads to the neck, trunk, then down to arms, legs, and feet</p> <p>Other affected areas: Eyes, Throat and respiratory tract, Mouth.</p>	<p>Early symptoms (before rash appears): High fever, Cough, Runny nose, Red, watery eyes (conjunctivitis), Sore throat, Fatigue</p> <p>Koplik spots: Small white or bluish spots with red halos inside the mouth (on inner cheeks), Appear 1–2 days before the rash</p> <p>Skin rash: Starts as flat red spots on the face, spreads downward over the body May join together as it spreads, Rash lasts about 5–6 days and then fades.</p>	<p>Virus: Caused by the measles virus, a highly contagious airborne virus in the paramyxovirus family.</p> <p>Spread by: Coughing and sneezing, breathing in contaminated air, Contact with infected secretions.</p>
Cold sore	On the lips (outer edge or corner of the mouth)	Initial tingling, itching, or burning: Many people experience these sensations before blisters appear.	Herpes simplex virus type 1 (HSV-1): This virus is the primary cause of cold sores.

	Around the mouth (chin, cheeks, or nose area)	<p>Small, fluid-filled blisters: These can form in clusters and may merge.</p> <p>Blisters bursting and oozing: The blisters break open, releasing fluid, and may then crust over.</p> <p>Pain or discomfort: Cold sores can be painful, especially when eating or talking.</p> <p>Other symptoms: In some cases, individuals may experience flu-like symptoms like fever, swollen lymph nodes, or sore throat, especially during the initial infection.</p>	<p>Spread through contact: HSV-1 is spread through direct contact, like kissing, sharing utensils, or touching a cold sore and then touching the face.</p> <p>Recurring outbreaks: Once infected with HSV-1, the virus remains dormant in the nerve cells and can reactivate periodically, causing recurring cold sores.</p> <p>Triggers: Stress, fever, sunlight, certain foods, or a weakened immune system can trigger outbreaks.</p>
C. FUNGAL			
Ringworm	It can affect various parts of the body, including the skin, scalp, nails, and hair, trunk, arms, legs, buttocks, groin, feet (athlete's foot), scalp (scalp ringworm), and even the face.	Red, circular, itchy rash with raised, scaly edges, often with a clearer center. Itching, scaly skin, and hair loss. The main symptom of ringworm is a rash. It may look red or darker than the surrounding skin, depending on your skin tone. The rash may be scaly, dry, swollen or itchy.	<p>From Other People; Direct contact with someone who has ringworm.</p> <p>From Animals; Touching pets (like cats, dogs, or farm animals) that have the fungus.</p> <p>From Contaminated Objects; Using things like towels, hairbrushes, hats, or gym equipment that carry the fungus.</p> <p>From Soil; Rare, but possible if your skin touches infected soil for a long time.</p>
Athlete's Foot	Usually affects the feet, especially between the toes (often the 4th and 5th toes) Soles of the feet, Heels Can sometimes spread to toenails or hands (if scratched)	Itching, stinging, or burning between toes or on soles, cracked, peeling, or scaly skin, Redness or blisters, dry, flaky skin that might resemble eczema, foul odour (in some cases), thickened, discoloured toenails (if it spreads to the nails)	<p>Caused by fungi (mostly dermatophytes) that thrive in: Warm, moist environments</p> <p>Common sources:</p> <p>Public showers, locker rooms, swimming pools,</p> <p>Tight, non-breathable shoes, Sweaty feet, Sharing towels, socks, or shoes</p>
Candida Infection	Mouth (Oral thrush) Tongue, inner cheeks, roof of mouth, throat, Genitals of Women: Vagina and vulva (vaginal yeast infection) and Men: Foreskin or head of the penis (less common), Skin folds Armpits, under the breasts, groin, between fingers or toes, nails Around or under the nail, bloodstream or internal organs called invasive candidiasis.	Mouth (Oral thrush) Tongue, inner cheeks, roof of mouth, throat. Genitals of women: Vagina and vulva Men: Foreskin or head of the penis, Skin folds armpits, under, the breasts, groin, between fingers or toes, Nails Around or under the nail bloodstream or internal organs Called invasive candidiasis	<p>Caused by Candida, a type of yeast (fungus), especially <i>Candida albicans</i>,</p> <p>Overgrowth can happen due to: weakened immune system, antibiotic use (kills good bacteria, allowing yeast to grow), Diabetes high sugar or carb diet Hormonal changes (pregnancy, birth control)</p> <p>Poor hygiene or moist environments, Wearing tight or damp clothing for too long</p>
D. PARASITIC			
Scabies	Scabies typically affects areas with thin skin or skin folds, especially: Between the fingers, Wrists, Elbows, Armpits, Waistline, Buttocks, Genital area, Breasts, Around the belly button. In infants and young children, it can also appear on: Face, Scalp, Palms, Soles of the feet	Intense itching, especially at night, red, bumpy rash or small blisters, Thin, wavy burrow lines on the skin (made by mites), Sores or scabs from scratching, in more severe cases (like crusted scabies), thick crusts form on the skin.	<p>Scabies is caused by a tiny mite called <i>Sarcoptes scabiei</i>.</p> <p>Prolonged skin-to-skin contact, sharing clothing, towels, or bedding, can spread rapidly in crowded places like: Nursing homes, Childcare centres, Prisons</p>
3. PIGMENTATION DISORDERS (Affect the color of the skin)			
Vitiligo	Vitiligo can appear anywhere on the body, but it's more common in: Face (especially around the mouth, eyes,	White or light-coloured patches: The primary symptom is the appearance of patches of lighter skin.	<p>Autoimmune disorder:</p> <p>The most accepted cause is that the body's immune system mistakenly attacks and</p>

	and nose), Hands and fingers, Feet and toes, Arms and legs, Armpits and groin, around body openings (mouth, eyes), Scalp (can cause white or grey patches of hair), Inside the mouth or nose (less common)	Premature Greying/whitening of hair: Hair in the affected areas may turn white or grey prematurely. Changes in eye colour: Vitiligo can sometimes affect the colour of the eyes. Mucosal changes: Loss of pigment can also occur in the mucous membranes inside the mouth and nose.	destroys melanocytes. Genetic factors: A family history of vitiligo can increase the risk of developing the condition. Environmental factors: While not fully understood, certain events like stress, severe sunburns, or chemical exposure may trigger vitiligo in some individuals.
Melasma	Melasma usually shows up on sun-exposed areas of the body, especially the face. common areas include: Cheeks, Forehead, bridge of the nose, upper lip, chin, sometimes on neck or forearms (less common).	Brown, grey-brown, or tan patches on the skin, usually symmetrical (both sides of the face), Patches are flat, not raised, Painless, no itching or discomfort.	Sun Exposure: UV rays stimulate melanocytes (pigment-producing cells), making melasma worse. Hormonal Changes: Common during pregnancy (called the "mask of pregnancy"), Also linked to birth control pills or hormone replacement therapy (HRT) Skincare Products: Some products can irritate the skin and worsen melasma Genetics: More common in people with darker skin types (Fitzpatrick types III–VI), Family history increases risk.
Albinism	Albinism affects melanin production, so it primarily impacts: Skin – Very light or pale skin that doesn't tan easily. Hair – White, pale blonde, or light brown hair depending on type. Eyes – Blue, grey, or light brown eyes; may also have vision problems. Vision system – Albinism often causes issues in eye development and optic nerve pathways.	Skin: Lighter skin tone, which may be very pale or even white. The skin is also more sensitive to the sun, increasing the risk of sunburn and skin cancer. Hair: Hair colour can range from white or very light blonde to reddish-brown, depending on the amount of melanin produced. Eyes: People with albinism often have light-coloured irises (the coloured part of the eye), which may appear pink, blue, green, grey, or brown. Vision: Vision problems are common in albinism and can include: Nystagmus (involuntary eye movement), Photophobia (light sensitivity), Poor depth perception, Farsightedness or near-sightedness, Astigmatism (blurred vision), Strabismus (crossed eyes).	Genetic Mutations: Albinism is caused by mutations in one or more genes that affect melanin production or distribution. Inherited: These gene mutations are usually inherited from both parents, who may be carriers of the gene but not have the condition themselves. Types of Albinism: different types of albinism are caused by mutations in different genes, leading to varying degrees of melanin deficiency and associated symptoms. For example, oculocutaneous albinism affects the skin, hair, and eyes, while ocular albinism primarily affects the eyes.
Post inflammatory hyperpigmentation	Post-inflammatory hyperpigmentation can occur anywhere on the skin where inflammation or injury has taken place, but it commonly affects: Face (e.g. after acne, rashes, or cosmetic procedures), Neck, Back and chest, Arms and legs, Areas prone to friction or irritation It's more common and noticeable in people with medium to dark skin tones	Darkened patches or spots on the skin (brown, black, grey, or even purplish, depending on skin tone) The pigmentation appears after the skin has healed from: Acne, Eczema, Insect bites, Burns, Cuts or scratches, Cosmetic treatments (chemical peels, laser, etc.), The affected skin is not raised, unlike scars, usually painless and non-itchy	Caused by overproduction of melanin after skin inflammation or injury Common triggers include: Acne, Eczema, rashes, Scratches, cuts, or burns, Insect bites, Friction or rubbing, Harsh cosmetic procedures (laser, chemical peels), Sun exposure after injury
4.AUTOIMMUNO SKIN DISORDERS			
Lupus	Lupus can affect various parts of the body, including the skin, joints, heart, lungs, kidneys, and brain. The location of symptoms can vary from person to person, and some individuals may experience multiple	Lupus symptoms can vary widely from person to person but may include: Fatigue (very common), Joint pain and stiffness, Butterfly-shaped rash across the nose and cheeks, Photosensitivity (sensitivity to sunlight), Hair loss, Fever, Mouth or nose	Genetics – tends to run in families Immune system problems – the body mistakenly attacks its own tissues Environmental triggers may include: Infections, Sunlight (UV rays), Certain medication, Stress, Hormones – more

	organ involvement. Commonly affected areas include the skin (rashes), joints (arthritis), and kidneys (lupus nephritis).	ulcers, Chest pain (especially when breathing deeply), Kidney problems (swelling in legs, foamy urine), Headaches, memory problems, or seizure	common in women, especially during childbearing years (linked to oestrogen)
Pemphigus vulgaris	Pemphigus vulgaris most commonly affects the mouth, nose, throat, eyes, and genitals, but can also involve other areas of the skin. Blisters often start in the mouth or on the skin, and can spread to other areas.	Painful blisters and sores on the skin and mucous membranes. Blisters rupture easily, leaving raw, open wounds, Mouth ulcers – often the first symptom, Skin peeling or crusting, Pain when eating or swallowing (if blisters are in the mouth or throat), No itching (unlike many other skin conditions), Nikolskiy sign positive – skin sloughs off easily when rubbed	Autoimmune disorder: Pemphigus vulgaris is an autoimmune disorder, meaning the body's immune system attacks its own healthy cells, Unknown triggers: The exact cause is often unknown, but environmental factors or medications may trigger the condition in people with a genetic predisposition. Genetic predisposition: Some individuals have a genetic predisposition to pemphigus vulgaris, which may be triggered by environmental factors. Medications: Certain medications, such as ACE inhibitors, penicillamine, and NSAIDs, may trigger pemphigus vulgaris in some individuals.
Blister	Blisters can form anywhere on the body, but most commonly on areas exposed to friction, heat, or irritation, such as: Feet (heels, toes – from tight shoes), Hands (palms, fingers – from tools, sports), Lips or mouth (cold sores or burns), Shoulders or back (sunburn blisters), Arms or legs (from allergic reactions, burns, or infections)	Fluid-filled bumps: Blisters appear as raised, fluid-filled bumps on the skin, Pain and Discomfort: They can be painful, especially when pressure is applied, Redness and Swelling: The area around the blister may become red and swollen, Itching: Some blisters may cause itching or a burning sensation, Pus: If the blister becomes infected, it may contain pus.	Friction: Repeated rubbing, such as from ill-fitting shoes or tools, can cause blisters. Burns: Burns, including sunburns and scalds, can lead to the formation of blisters. Infections: Infections, such as impetigo, chickenpox, or shingles, can cause blistering skin conditions. Skin diseases: Some skin diseases, like bullous pemphigoid or epidermolysis bullosa, can cause blisters. Trauma: Injuries or pressure on the skin can lead to blister formation. Medications: Certain medications can increase the risk of blistering, or can cause blisters as a side effect.

5.NEOPLASTIC SKIN DISORDERS

A. BENIGN

Moles	Moles can develop on any part of the body, but they are more common in areas frequently exposed to the sun, such as the face, arms, and legs. Moles can also appear on the scalp, breast, or buttocks, although they are less common in these areas.	Most moles are asymptomatic, they don't cause pain, itching, or other symptoms. However, it's crucial to monitor moles for any changes, such as: Changes in size, shape, or colour, new moles that appear in adulthood, any mole that is bleeding, oozing, or crusty, Pain, itching, or a change in sensation around a mole	Genetics: Moles are often inherited and the number, type, and location of moles can be influenced by genetic factors. Sun Exposure: Exposure to ultraviolet (UV) radiation, particularly from the sun or tanning beds, can trigger the development of new moles or cause existing moles to darken or change. Hormonal Changes: Fluctuations in hormone levels, such as during puberty or pregnancy, can also affect mole development, causing them to darken or increase in size.
Seborrheic keratosis	Seborrheic keratosis can develop anywhere on the skin, but most commonly appears on: Face, Chest, Back, Shoulders, Scalp, Abdomen It does not appear on the palms, soles, or mucous membranes	Waxy, scaly, or "stuck-on" appearance, Colour ranges from light tan to dark brown or black, can be flat or slightly raised, Size varies: from a few milli meters to over 2.5 cm, Surface can be rough, wart-like, or smooth, usually painless, but may become itchy or irritated if rubbed, often multiple lesions, especially with age	Age and Genetics: Seborrheic keratoses are more common with age and tend to run in families, suggesting a genetic component. Sun Exposure: Prolonged exposure to sunlight may contribute to their development, particularly in areas like the face, neck, and shoulders. Other Factors: While the exact cause is unknown, factors like friction and rubbing in certain areas (like under clothing) might also

			<p>play a role.</p> <p>Non-Cancerous Nature: Seborrheic keratosis is a benign skin growth and not associated with cancerous changes.</p>
Lipomas	<p>Its commonly found in areas with fatty tissue, such as: Neck, Shoulders, Back, Arms, Thighs, Abdomen, Forehead or scalp (less common)</p> <p>They grow under the skin, often between the skin and muscle layer</p>	<p>Soft, rubbery lump under the skin, Painless (usually), but can be tender if pressing on nerves or blood vessels, moves easily when pushed with a finger (mobile), Slow-growing, typically small (2–5 cm), but can grow larger, usually single, but some people may have multiple lipomas</p>	<p>exact cause of lipomas is not well understood, but several factors are associated:</p> <p>Genetics – tends to run in families (familial multiple lipomatosis)</p> <p>Age – more common in adults aged 40–60</p> <p>Minor injuries – trauma may trigger a lipoma, though this is debated</p> <p>Medical conditions (rarely associated): Adiposis dolorosa, Cowden syndrome, Madelung's disease</p> <p>not cancerous, lipomas are benign (non-cancerous) tumorous of fat cells, very rarely, a liposarcoma (a cancerous tumour) can look similar, so diagnosis is important</p>
B. MALIGNANT			
Basal cell carcinoma	<p>Basal cell carcinoma usually develops in sun-exposed areas, especially: Face (nose, forehead, cheeks), Ears, Neck, Scalp, Shoulders, Back, Hands and arms</p> <p>It can appear anywhere on the body, but these areas are the most common due to sun exposure.</p>	<p>A pearly or waxy bump</p> <p>A flesh-coloured or pink patch</p> <p>A scar-like, flat area with a shiny surface</p> <p>Open sore that doesn't heal or keeps coming back</p> <p>A red, irritated patch that may crust or itch</p> <p>May bleed easily, especially if scratched</p>	<p>UV Radiation: Prolonged and repeated exposure to ultraviolet radiation from the sun is the main cause.</p> <p>Other Factors: Fair skin, light eyes, and red or blonde hair increase risk, Family history of skin cancer, Certain genetic syndromes like nevoid basal cell carcinoma syndrome, Radiation therapy or long-term exposure to certain chemicals.</p>
Squamous cell carcinoma	<p>Squamous cell carcinoma typically appears on sun-exposed areas, such as: Face, Ears, Neck, Scalp, Hands and arms, Lips But it can also occur in less exposed areas, especially Inside the mouth, Genitals, anal</p>	<p>Rough, scaly patch that may crust or bleed, Firm red nodule or bump, Open sore that doesn't heal or heals and comes back, Wart-like growth, May be painful or tender, can become larger and invasive if not treated</p>	<p>The primary cause is damage to skin cells from ultraviolet (UV) radiation, especially from: Sun exposure, Tanning beds</p> <p>Other risk factors include: Fair skin (light hair and eyes), Older age Chronic wounds or scars, Exposure to carcinogens (e.g., arsenic), Weakened immune system (e.g., organ transplant patients), HPV infection (in genital/anal SCC)</p>
Melanoma	<p>Skin: Most commonly appears on areas exposed to the sun, like: Face, Back, Arms, Legs</p> <p>Less common sites: Under fingernails or toenails (subungual melanoma), Eyes (ocular melanoma), Mucous membranes (mouth, nose, genital or anal areas), Scalp or soles of feet</p>	<p>Skin: Pale skin that burns easily in the sun, and may not tan.</p> <p>Hair: Light-coloured hair, ranging from white to brown.</p> <p>Eyes: Light-coloured eyes (blue, green, or brown), sensitivity to light, poor depth perception, and possible nystagmus (involuntary eye movement).</p> <p>Vision: Nystagmus, photophobia (light sensitivity), impaired vision, and potentially blindness.</p>	<p>Genetic Mutation: Albinism is caused by a mutation in genes responsible for melanin production.</p> <p>Inherited: Most people with albinism inherit the condition from their parents, who may be carriers of the gene without showing symptoms themselves.</p> <p>Oculocutaneous Albinism: This is the most common type, affecting skin, hair, and eyes.</p> <p>Ocular Albinism: This affects only the eyes.</p> <p>Other Forms: Hermansky-Pudlak syndrome, a type of albinism, can also be associated with bleeding disorders and other health issues.</p>
Actinic keratosis	<p>Actinic keratosis usually appears on sun-exposed areas of the body, including: Face (especially the forehead, nose, cheeks, ears), Scalp (especially in bald individuals), Neck, Hands, Forearms, Shoulders, Upper chest, Lips</p>	<p>Rough, scaly, or crusty patches on the skin</p> <p>Colour can be skin-coloured, red, pink, grey, or brown</p> <p>May be flat or slightly raised</p> <p>Often feel like sandpaper to the touch</p> <p>Some may itch, burn, sting, or bleed</p> <p>In rare cases, they can evolve into squamous cell carcinoma (a type of skin cancer)</p>	<p>Excessive UV exposure: Repeated or prolonged exposure to ultraviolet light from the sun or indoor tanning devices.</p> <p>UV damage: UV radiation damages keratinocytes, the skin's outermost cells, leading to the development of AK.</p> <p>Risk factors: Increased age, fair skin, light-coloured eyes, history of sunburns, and weakened immune system.</p>

6. GENETIC SKIN DISORDERS			
Ichthyosis vulgaris	Ichthyosis vulgaris typically affects the: Shins (front of the legs), Arms, Back, Abdomen, Scalp, Face (sometimes, especially cheeks in children), Palms and soles – may appear thickened and more lined	Dry, scaly skin, Fine white or grey scales, especially on the legs, Flaky scalp, Itchy skin (especially in dry environments), Thickened skin on palms and soles, Lines or cracks in the skin, Symptoms often become more noticeable in cold, dry weather, May improve in warm, humid conditions In children, symptoms usually appear in the first year of life, often after about 3 months.	Genetic mutation: The condition is primarily caused by a mutation in the filaggrin gene, which affects the skin's ability to shed dead cells properly. Inherited: Ichthyosis vulgaris is often hereditary, with a dominant inheritance pattern, meaning a single copy of the mutated gene can cause the condition. Acquired: In some cases, ichthyosis can develop later in life, possibly related to underlying medical conditions like cancer, malnutrition, or autoimmune diseases.
Epidermolysis bullosa	EB can affect any part of the body, including the skin, mouth, eyes, and internal organs. Blisters and sores often appear on areas prone to friction, like hands, feet, knees, and elbows, but can also develop in other areas.	Symptoms vary depending on the type and severity, but general signs include: Fragile skin that blisters easily, even from minor rubbing or pressure Blisters at birth or early infancy (in most forms) Blisters inside the mouth and throat Thickened skin on palms and soles Scarring, milia (tiny white bumps), and nail loss Hair loss, dental issues, and feeding problems	Genetic mutations in the genes responsible for skin integrity These genes code for proteins that help bind the skin layers together EB is usually inherited, either: Autosomal dominant (only one mutated copy of the gene is needed) Autosomal recessive (both copies of the gene must be mutated)
Neuro fibromatosis	Neurofibromatosis can affect the skin, nervous system and bones. NF1: Symptoms primarily affect the skin and eyes, with tumour (neurofibromas) and café-au-lait spots being common. NF2: Primarily affects the auditory nerve, leading to hearing loss, and can also involve tumorous in the brain and spine. Schwannomatosis: Primarily affects spinal and peripheral nerves.	NF1: Café-au-lait spots, neurofibromas, freckling in armpits or groin, Lisch nodules (tiny bumps on the iris), and optic pathway gliomas (tumorous on the optic nerve). NF2: Hearing loss, tinnitus (ringing in the ears), balance problems, and brain tumorous (meningiomas). Schwannomatosis: Chronic pain, sensory disturbances (numbness, tingling), and muscle weakness.	Neurofibromatosis is a genetic condition caused by mutations in genes that control cell growth and development. NF1: Caused by mutations in the NF1 gene on chromosome 17. NF2: Caused by mutations in the NF2 gene on chromosome 22. Schwannomatosis: Caused by mutations in genes on chromosome 22.
7. ACNE AND RELATED CONDITION			
Acne Vulgaris	Acne vulgaris most commonly affects areas with a high concentration of oil glands, such as the face, chest, upper back, and shoulders. It can also occur on the neck, upper arms, and trunk.	Whiteheads: Pores clogged with oil and dead skin that are closed at the surface. Blackheads: Pores clogged with oil and dead skin that are open at the surface. Papules: Small red, tender bumps. Pustules: Pimples with pus at their tips. Nodules: Large, painful lumps beneath the surface of the skin. Cysts: Deep, painful, pus-filled lumps (can lead to scarring).	Overproduction of sebum: Oil glands produce excess oil (sebum), which can clog pores. Dead skin cells: The lining of pores becomes thickened, and dead skin cells are not shed properly, contributing to blockage. Bacteria (Propionibacterium acnes): Bacteria can multiply in clogged pores, leading to inflammation and the formation of pimples, cysts, and nodules. Hormonal fluctuations: Hormones can stimulate the sebaceous glands to produce more oil, particularly during puberty, menstruation, and pregnancy. Genetics: Acne can run in families. Other factors: Stress, certain medications, and some foods or diets may also play a role in the

			development of acne.
Cystic Acne	Face (forehead, cheeks, chin), chest, back, neck, and shoulders.	Large, red, and tender bumps, Painful lumps beneath the skin, Soft, pus-filled cysts, Swelling and inflammation, May burst and ooze, Scarring is common	<p>Overproduction of sebum: Oil glands produce excess oil (sebum), which can clog pores.</p> <p>Dead skin cells: The lining of pores becomes thickened, and dead skin cells are not shed properly, contributing to blockage.</p> <p>Bacteria (<i>Propionibacterium acnes</i>): Bacteria can multiply in clogged pores, leading to inflammation and the formation of pimples, cysts, and nodules.</p> <p>Hormonal fluctuations: Hormones can stimulate the sebaceous glands to produce more oil, particularly during puberty, menstruation, and pregnancy.</p> <p>Genetics: Acne can run in families.</p> <p>Other factors: Stress, certain medications, and some foods or diets may also play a role in the development of acne.</p>

CONCLUSION:

In conclusion, dermatological disorders encompass a wide range of conditions affecting the skin, hair, and nails. These disorders can vary greatly in terms of severity, from mild irritations to life-threatening diseases. Common skin conditions include acne, eczema, psoriasis, rosacea, and skin cancer, while less frequent but significant issues include autoimmune skin diseases and infections. The management of dermatological disorders often involves a combination of lifestyle modifications, topical treatments, oral medications, and in some cases, surgical interventions.

Early diagnosis and appropriate treatment are essential to effectively manage these conditions and minimize their impact on a patient's quality of life. Dermatology has made significant advancements in both understanding the underlying causes of skin disorders and developing more targeted therapies. However, challenges remain in providing comprehensive care, especially for chronic conditions, and in ensuring access to dermatological expertise for all patients. Ongoing research continues to offer hope for even more effective treatments in the future, underscoring the importance of continued vigilance in both prevention and management.

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