

OILY AND DRY SKIN

Points to be covered in this topic

→ OILY AND DRY SKIN

→ SKIN MOISTURISATION

→ COMEDOGENIC

→ DERMATITIS

→ DANDRUFF

→ HAIR LOSS

→ BLEMISHES

→ WRINKLES

→ ACNE

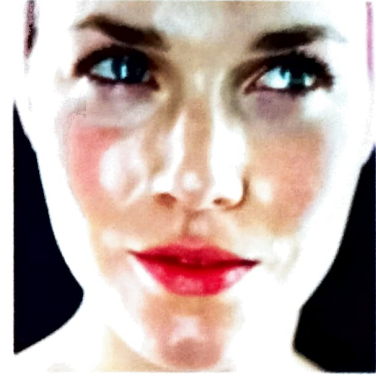
→ PRICKLY HEAT

→ BODY ODOR

OILY AND DRY SKIN

> OILY SKIN

- **Oily skin** is not an uncommon dermatological concern.
- Your skin's **sebaceous glands produce** a certain amount of **natural oils** to stay healthy.
- However, when it **produces excess sebum (oil)**, it appears **shiny and greasy**.
- This is the first symptom to determine an oily skin type.



❖ CAUSES OF OILY SKIN

- ✓ Genetics
- ✓ Age
- ✓ Enlarged pores
- ✓ Using the wrong skin care products
- ✓ Overdoing your skin care routine
- ✓ Skipping your moisturizer

❖ HOW TO GET RID OF OILY SKIN

- ✓ **Wash Your Face Regularly**
 - **Washing your face** at least twice a day should be part of your **skincare routine**.
 - This **cleans clogged pores**, and **removes dirt** and bacteria from your skin, while also preventing breakouts.
- ✓ **Drink Lot of Water**
 - Your body should **stay hydrated** at all times.
 - If it **lacks water**, the body may **produce too much oil** to keep your **skin hydrated**.
 - At **least 2-3 liters of water** a day is ideal to keep your skin healthy.



✓ **Avoid Direct Sun Exposure**

- **Direct exposure** to the **sun dehydrates** your body and skin.
- This may cause your **body to overproduce oil**. Wear sunscreen before you step out.



✓ **Follow a Skincare Routine**

- It is **always healthy to follow** a basic skincare regimen to allow your **skin to breathe**. Don't compromise on your products.



➤ **DRY SKIN**

- Dry skin is an **uncomfortable condition** marked by **scaling, itching, and cracking**.
- It can occur for a **variety of reasons**.
- You might have **naturally dry skin**.
- But even if **your skin tends** to be oily, you can **develop dry skin** from time to time.



❖ **TYPES OF DRY SKIN**

✓ **Contact dermatitis**

- **Contact dermatitis** develops when your skin reacts to something it **touches, causing localized inflammation**.
- **Irritant contact dermatitis** can occur when your skin's exposed to an **irritating chemical agent**, such as bleach.



✓ **Seborrheic dermatitis**

- **Seborrheic dermatitis** occurs when your skin produces too much oil.
- It results in a **red and scaly rash**, usually on your scalp.
- This type of **dermatitis is common in infants**.



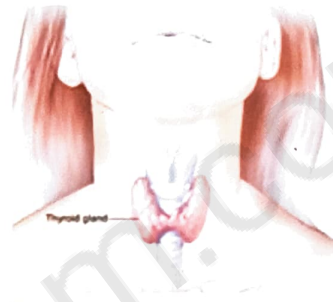
✓ Atopic dermatitis

- **Atopic dermatitis** is also known as **eczema**.
- It's a **chronic skin condition** that causes dry scaly patches to **appear on your skin**.
- It's common among **young children**.



❖ CAUSES OF DRY SKIN

- Medications
- Older age
- Vitamin deficiency
- Diabetes, thyroid disease, or kidney disease
- Chemotherapy
- Anorexia
- Skin barrier dysfunction



❖ SYMPTOMS

- **Affected skin appears** dull, peeled.
- **Itchy and painful skin**.
- **Redness, itchiness and deep cracks** that may bleed.
- **Gray ashy skin**.
- **Fine lines or cracks**.
- Skin that **feels and looks rough**.

❖ PREVENT DRY SKIN

- **Avoid using hot water** to bathe or shower
- **Shower every** other day instead of every day
- Keep your **shower time to less than 10 minutes**
- **Use a moisturizing soap** when you bathe or shower
- **Apply moisturizer immediately** after bathing or showering
- **Pat, rather than rub, wet skin dry** with a soft towel
- **Avoid itching or scrubbing dry skin patches**
- Use a **humidifier in your home**
- **Drink plenty of water**
- Change your **skin care routine as directed by your doctor**

SKIN MOISTURISATION

- **Moisturizers are complex mixtures** of chemical agents often **occlusive help** hold water in the skin after application, humectants attract moisture and **emollients** help smooth the skin.
- They increase the **skin's hydration (water content)** by reducing evaporation.
- Naturally occurring **skin lipids and sterols**, as well as **artificial or natural** oils, humectants, emollients, lubricants, etc.
- May be part of the composition of **commercial skin moisturizers**.
- They usually are available as **commercial products for cosmetic and therapeutic uses**.



➤ AN IDEAL MOISTURIZER SHOULD

- **Reduce and prevent** further TEWL (Trans Epidermal water loss).
- **Restore lipid barrier**, i.e., **duplicating and enhancing** the skin's moisturizing retention mechanisms.
- **Hypo-allergenic, non-sensitizing, fragrance free**.
- **Absorbed immediately**, providing immediate hydration.
- **Cosmetically acceptable**.

❖ ROLE OF MOISTURIZERS

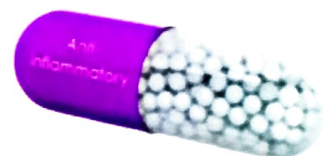
✓ **Moisturizing action**

- This is the **most vital action** by which they **increase the water content** of the SC.
- **Hydration smoothens** the skin surface by **flattening the "valleys"** between the **skin contour ridges**.



✓ **Anti-inflammatory action**

- Many moisturizers inhibit the **production of pro-inflammatory** prostanoids by **blocking cyclooxygenase activity** thus have a soothing effect on **inflamed regions**.



✓ Antimitotic action

- Moisturizers containing **mineral oils** have **low-grade anti-mitotic action** on the epidermis and thus are useful in **inflammatory dermatitis** like psoriasis, where there is increased epidermal mitotic

✓ Antipruritic action

- This reducing the **itching**. Further more, **cooling effect** **evaporation** of water from the **skin surface** after using water based moisturizers has **antipruritic effect**.



✓ Protective action

- These days **sunscreens** with variable **sun protection factor** are incorporated in the **moisturizers** providing additional sun protection.



✓ Miscellaneous actions

- **Quality of life improvement:** Having a **smooth and hydrated skin** plays a good role in our social life and **psychological satisfaction**.
- **Antimicrobial action:** Act against **skin surface microbes**. Wound healing: Hyaluronic acid is known to play a role.

❖ MECHANISM OF ACTION OF MOISTURIZER

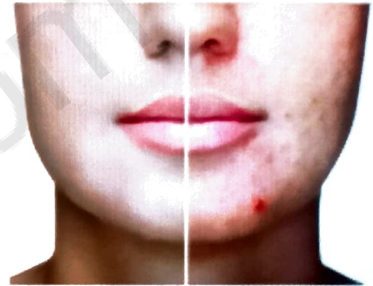
- **Increasing water diffusion** from the living cells of **epidermis** into the horny lay through the barrier. This can achieved by **chemically disrupting** the epidermal barrier in the **lowermost horny layer**.
- By adding **water directly from outside**, or by strengthening of lipid framework in the **stratum corneum** to maintaining the hydration level of skin.
- By occluding the surface to **prevent evaporation of water** and increases the water holding capacity of **stratum corneum** which gives plasticity to the skin.

❖ EXAMPLES

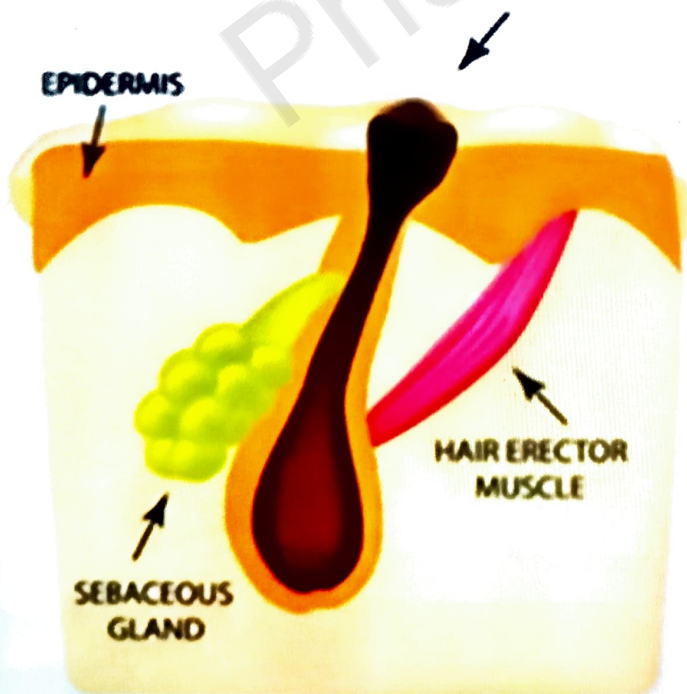
- **Hydrocarbon oils and waxes** e.g. Mineral oil, petroleum, paraffin microcrystalline wax.
- **Silicone oils** e.g. water and alcohol soluble silicone glycol copolymers.
- **Triglyceride esters** e.g. vegetable & animal oils and fats.
- **Fatty acids** e.g. cetyl alcohols.
- **Lanolin and derivatives** e.g. lanolin, lanolin oil, lanolin wax, lanolin alcohol, lanolin fatty acids
- **Sterols** e.g. Cholesterol, cholesterol fatty acids esters.

COMEDOGENIC

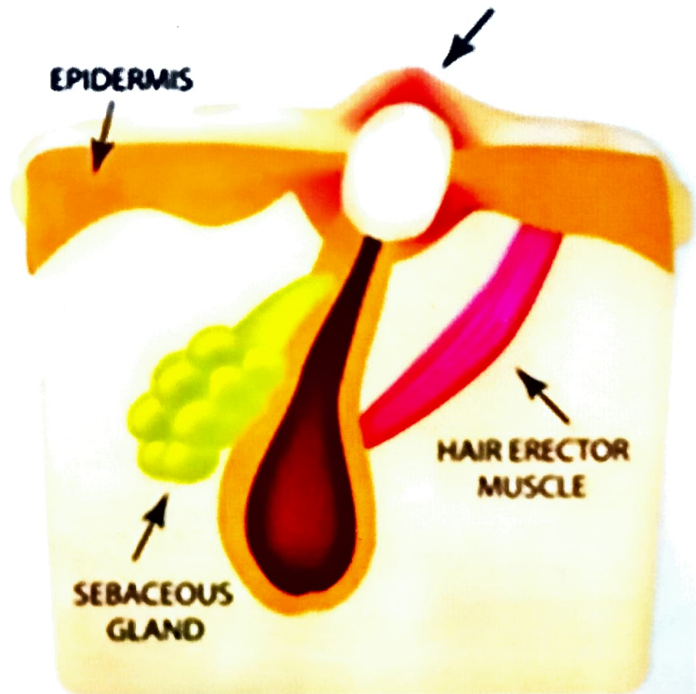
- **Comedones** are small flesh-colored acne papules.
- They usually develop on the **forehead and chin**.
- **Blackheads and whiteheads** are the most common forms of comedonal acne.
- Blackheads have "**open**" comedones, while whiteheads have "closed" ones. Some comedones may be invisible to the eye (microcomedones).



OPEN COMEDON



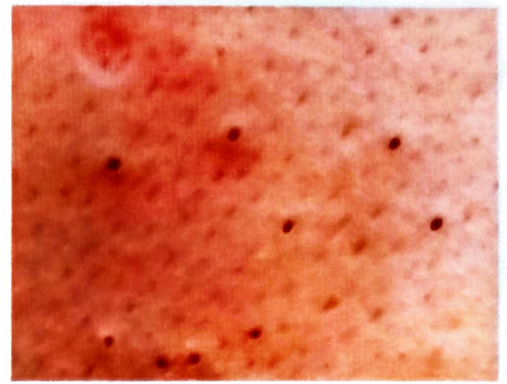
CLOSED COMEDON



➤ TYPES OF COMEDOGENIC

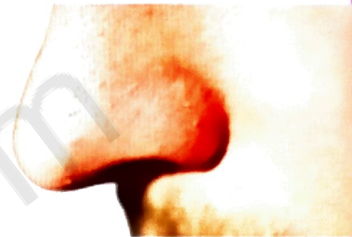
❖ BLACKHEADS

- Blackheads are open-faced.
- When the **melanin pigment** (found in the sebum produced by our oil glands) makes contact with the air at the top of an open comedone, it oxidizes and turns dark.
- This is why blackheads have a **dark appearance**.



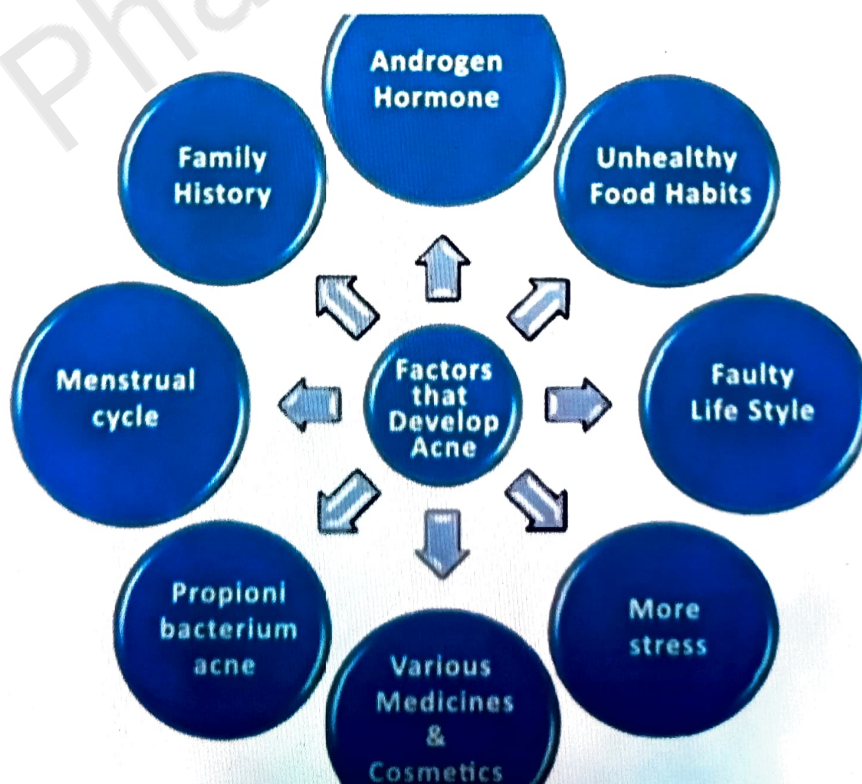
❖ WHITEHEADS

- **Whiteheads**, on the other hand, have closed surfaces.
- They look like **small white or flesh-colored dots**.



➤ RISK FACTORS FOR COMEDONAL ACNE INCLUDE

- **High dairy consumption**
- **Diet that consists** of a lot of fats and sugars
- Overhydrated skin, usually from using the **wrong moisturizer high humidity laser therapy or chemical peels**
- **Follicle injury from "picking"** skin or popping comedones



➤ TREATMENT OPTIONS

✓ TOPICALS

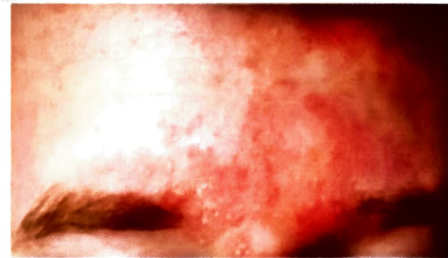
- **Topical treatments** are applied directly onto the face to control excess sebum and unclog existing comedones.
- Common options include: **azelaic acid, benzoyl-peroxide, glycolic acid, salicylic acid, retinoids and sulfur.**

✓ MEDICATIONS

- They may prescribe : **antibiotics , oral contraceptives, isotretinoin** and spironolactone, **anti-androgen medication** that's sometimes used along with oral contraceptive in women to control **sebum production.**

DERMATITIS

- The **inflammation** of the skin characterized by erythema and **pain or pruritis** is called as dermatitis.
- In the word "**dermatitis,**" "**derm**" means "**skin**" and "**itis**" means "**inflammation.**"
- The word as a whole means "**inflammation of the skin.**"
- The rashes range from **mild to severe** and can cause a variety of problems, depending on their cause.



➤ TYPES OF DERMATITIS

✓ **It is mainly divided into 4 types**

- **Contact dermatitis (dandruff)**
- **Atopic dermatitis (eczema)**
- **Seborrheic dermatitis**
- **Exfoliative dermatitis**

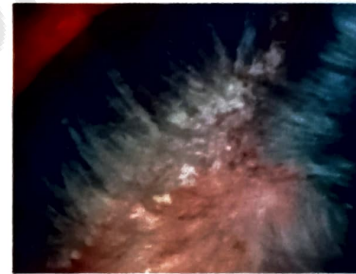
❖ CONTACT DERMATITIS



- It is the **inflammatory reaction** of the skin because of exposure to **physical, chemical or biological agents**.
- **Red, irritated skin**, thick scaly region that's caused by a reaction to substances that is touched.
- The main causes of **contact dermatitis** includes acids, alkalies, soap, detergents, cosmetics, iodine, petroleum products, nail polish, **lubricating oils etc.**
- **Frequent contact** with water and **extreme of heat and cold** can also predisposed to contact dermatitis.

❖ ATOPIC DERMATITIS (ECZEMA)

- Eczema is sometimes called **atopic dermatitis**, which is the most common form.
- **"Atopic"** refers to an allergy. People with eczema often have **allergies or asthma** along with itchy, red, or hyper pigmented skin.



❖ SEBORRHEIC DERMATITIS

- **Seborrheic dermatitis** causes no serious harm to the body, including the hair.
- It appears as **red, dry, flaky, itchy skin** on the scalp and other parts of the body and is common but not contagious.
- Its presence doesn't mean the skin is **unclean or infected**.
- **Medications manage the symptoms.**



❖ EXFOLIATIVE DERMATITIS

- It is a **severe inflammation** of the entire skin surface due to a reaction to **certain medicines**, a pre-existing skin condition, and sometimes cancer.
- It is characterized by **redness and scaling** of the skin that begins in **patches and spreads**.
- The skin begins to slough off.



DANDRUFF

- Dandruff is a **harmless, chronic condition** that occurs when the scalp **becomes dry or greasy and produces** white flakes of dead skin that appear in the hair or on the shoulders.
- Although it is **harmless, dandruff** can be embarrassing for those who have it.



➤ SOME OF THE MORE COMMON SYMPTOMS OF DANDRUFF INCLUDE

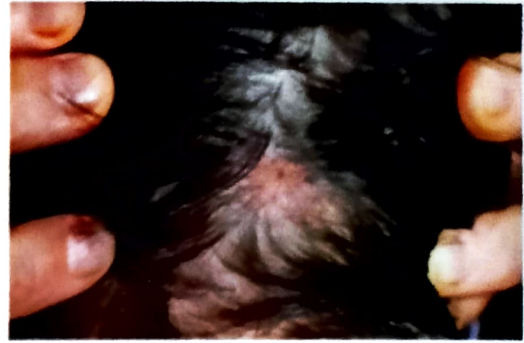
- Flakes appearing on your **scalp, eyebrows, hair, mustache, beard,** or shoulders
- **Itching in the scalp**
- The appearance of a **scaly crusty scalp in babies,** known as cradle cap.

❖ CAUSES OF DANDRUFF

- There are a **variety of reasons** that you might end up with dandruff. Some of the most common causes of dandruff include:
 - ✓ **Irritated and oily skin**
 - ✓ **Not shampooing often enough**
 - ✓ The **presence of a yeast-like fungus** called malassezia that likes to feed on scalp oils in most adults
 - ✓ **Dryness of the scalp**
 - ✓ **Contact dermatitis (itchy skin or rash)** caused by touching or being around certain hair products

HAIR LOSS

- **Hair loss (alopecia)** can affect just your scalp or your entire body, and it can be **temporary or permanent**.
- It can be the result of heredity, **hormonal changes, medical conditions** or a normal part of aging.



- Anyone can **lose hair** on their head, but it's more common in men.
- **Baldness** typically refers to excessive hair loss from your scalp. Hereditary hair loss with age is the most common cause of baldness.

➤ SYMPTOMS

✓ Gradual thinning on top of head

- This is the most **common type of hair loss**, affecting people as they age.
- In **men, hair often begins** to recede at the hairline on the forehead.



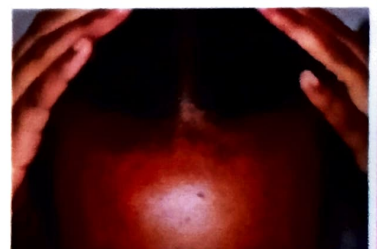
✓ Circular or patchy bald spots

- Some people **lose hair in circular** or patchy bald spots on the scalp, beard or eyebrows.
- Your skin may **become itchy or painful** before the hair falls out.



✓ Sudden loosening of hair

- A **physical or emotional shock** can cause hair to loosen.
- **Handfuls** of hair may come out when **combing or washing your hair** or even after gentle tugging.



✓ Full-body hair loss

- Some conditions and **medical treatments**, such as **chemotherapy for cancer**, can result in the loss of hair all over your body.
- The hair usually grows back.



✓ Patches of scaling that spread over the scalp

- This is a **sign of ringworm**.
- It may be accompanied by **broken hair, redness, swelling and, at times, oozing**.



➤ CAUSES

❖ FAMILY HISTORY (HEREDITY)

- The most common cause of **hair loss** is a **hereditary condition** that happens with aging.
- This condition is **called androgenic alopecia, male-pattern baldness and female-pattern baldness**.

❖ HORMONAL CHANGES AND MEDICAL CONDITIONS

- A **variety of conditions** can cause permanent or **temporary hair loss**, including hormonal changes due to **pregnancy, childbirth, menopause and thyroid problems**.

❖ MEDICATIONS AND SUPPLEMENTS

- **Hair loss** can be a side effect of certain drugs, such as those **used for cancer, arthritis, depression, heart problems, gout** and high blood pressure.

❖ RADIATION THERAPY TO THE HEAD

- The hair may **not grow back the same** as it was before.

❖ A VERY STRESSFUL EVENT

- Many people **experience a general thinning** of hair several months after a **physical or emotional shock**.
- This type of **hair loss is temporary**.

❖ HAIRSTYLES AND TREATMENTS

- **Excessive hairstyling** or **hairstyles** that pull your **hair tight**, such as **pigtails or cornrows**, can cause a type of hair loss called traction alopecia.
- **Hot-oil hair treatments** and permanents also can cause hair to fall out. If scarring occurs, hair loss could be permanent.

BLEMISHES

- **Blemish** is the term for any **mark on the skin**.
- There are many **different types of blemish**.
- Most **blemishes are harmless**, but some people may wish to treat them for **cosmetic reasons**.
- **Certain blemishes** may indicate an underlying condition, such as **skin cancer**, which requires **prompt medical treatment**.

➤ TYPES OF BLEMISHES

❖ ACNE

- Acne is a **skin condition** that occurs as a result of the skin producing too much oil.

❖ BLACKHEADS

- **Blackheads** are **small, dark spots** on the surface of the skin.
- They resemble **trapped dirt** but actually consist of oil that has become stuck inside the pore.
- When this oil reacts with air, it becomes black.

❖ WHITEHEADS

- **Whiteheads are small, round blemishes** that are white or skin-colored.
- They develop as a result of **oil and dead skin cells** blocking the pores.

❖ PAPULES

- Papules are **small, hard, red bumps on the skin**.
- These develop when **excess oil, bacteria**, and **dead skin cells** travel deeper into the skin, **causing inflammation**.
- When **lots of papules cluster** together, this can give the skin a rough, sandpaper-like texture.

❖ PUSTULES

- Pustules are **raised, red spots** that contain **yellow or white pus**.
- They occur when **oil, bacteria, and dead skin cells** collect under the skin, causing infection.

➤ CAUSES OF BLEMISHES

❖ VIRUSES

- **Some blemishes, like cold sores**, are caused by viruses, such as HSV-1. The **varicella-zoster virus (VZV)** causes chickenpox.

❖ INFECTIONS

- Certain types of **skin infections** can cause **blemishes** to erupt on the skin. These include **malassezia folliculitis** (fungal acne), an infection in the **hair follicles**.
- This condition is caused by an **overgrowth of yeast** and **causes pustules** to form.

❖ GENETICS

- Acne may have a genetic link. **Certain hereditary conditions** can also cause blemishes to occur.
- **Darier disease :- Wartlike blemishes** form on the skin that are **oily, smelly, and hard to the touch**.
- **Fabry disease :-** This is an **inherited disorder** that involves a gene mutation. **Small groupings of dark, red spots** are a symptom.

❖ SUN EXPOSURE

- Overexposure to the **sun's harmful ultraviolet (UV) A and B rays** can cause skin cancer, hyperpigmentation, and other forms of skin damage.

❖ DIET

- What you **eat might** have an **impact on your skin**.
- **Food allergies** and **contact dermatitis** can both cause **skin irritation** and bumps. **Dairy products**, such as **skim milk**, may cause acne.
- Diets high in **sugar and simple carbohydrates** may also lead to blemishes.

❖ MEDICATIONS

- Some prescription and **over-the-counter (OTC) medications** may cause acne as a side effect.
- These include: **corticosteroids androgenic steroids lithium**

WRINKLES

- WRINKLES are **lines, creases** and furrow that form in your skin.
- They tend to appear in the **parts of the body** exposed to sun especially noticeable around your **mouth, neck, hands and eyes**.
- They normally appear as **people get older**, but they can also develop after spending long time in water.



➤ CAUSES

❖ SMOKING

- **Smoking can accelerate** the normal aging process of your skin, **contributing to wrinkle**.
- This may be due to changes in the **blood supply to your skin**.

❖ REPEATED FACIAL EXPRESSIONS

- **Facial movements and expressions** such as squinting or smoking leads to **fine lines and wrinkles**.
- Each time when we use a **facial muscle**, a groove forms beneath the surface of the skin.
- And as skin age, it **loses its flexibility** and is no longer able to spring back in place.
- These grooves then become **permanent features on your face**.

❖ EXPOSURE TO ULTRAVIOLET (UV) LIGHT

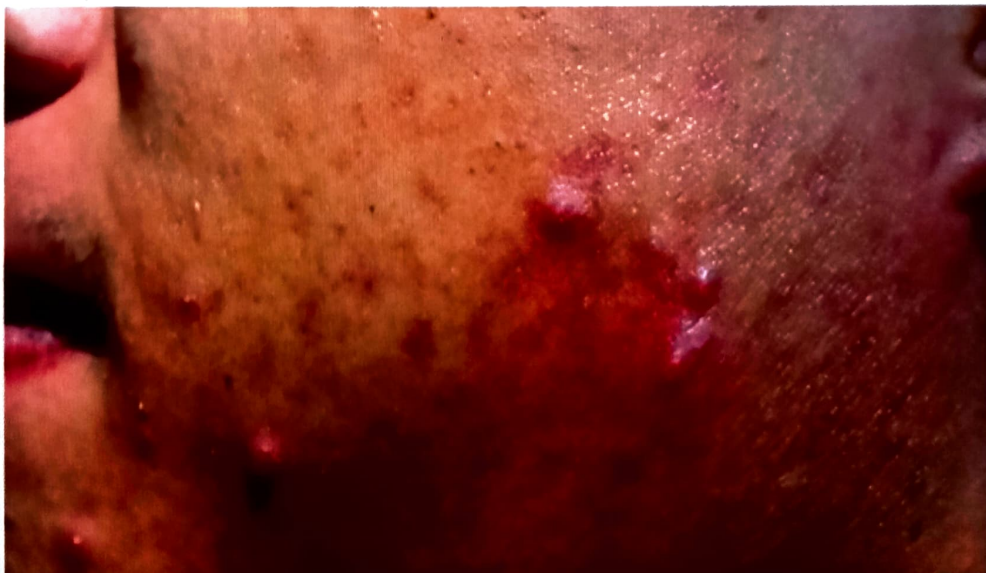
- **UV radiation**, which speeds the **natural aging process**, is the primary cause of early (premature) wrinkling.

❖ POLLUTION

- **Free radicals** (or harmful, electron- hungry molecules) causes damage when they pull electrons from other molecules in our body.

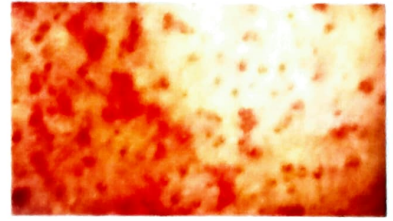
ACNE

- **Acne vulgaris** is a **disorder of pilosebaceous** unit characterized by the formation of **comedones, papules, pustules, nodules and cysts**.
- It is the most **common disorder encounter** in day to day practice by dermatologists



PRICKLY HEAT

- A **prickly heat rash**, also known **medically as miliaria**, is a rash that may **develop in patients** who tend to **sweat a great deal** more than what is usual, who are also faced with **sweat glands** that become blocked.



➤ CAUSES OF PRICKLY HEAT

- **Prickly heat rash** can be caused by **excessive perspiration**, usually seen in hot, **humid climates**.
- This **excessive perspiration** can make it easier for **dead skin cells** as well as bacteria to **block the body's sweat glands**, in turn causing a barrier of sorts to be formed, which traps the **sweat under the skin**.
- This condition then results in the **sweat building** up under the skin, in turn resulting in the **characteristic bumps** of this condition being seen.
- As the bumps caused **begin to burst**, released the trapped sweat, the patient can suffer from a **prickly, or stinging sensation** that gives this condition its name.

BODY ODOR

- **Body odor** is what you smell when **your sweat comes in contact with the bacteria on your skin**.
- **Sweat itself doesn't smell**, but when the **bacteria on your skin** mix with your sweat, it causes an odor.
- **Body odor** can smell sweet, sour, tangy or like onions. The amount you **sweat doesn't necessarily impact** your body odor.

❖ OTHER FACTORS THAT CAN AFFECT BODY ODOR ARE

- **Exercise**
- **Stress or anxiety**
- **Hot weather**
- **Being overweight**
- **Genetics**

ANTIPERSPIRANTS AND DEODORANTS – ACTIVE AND MECHANISM OF ACTION

Points to be covered in this topic

→ INTRODUCTION

→ ACTIVE INGREDIENTS

→ MECHANISM OF ACTION



INTRODUCTION

➤ DEODORANTS

- A **deodorant** is a substance applied to the **body to prevent** body odor caused by the **bacterial breakdown** of perspiration in **armpits, feet, and other areas** of the body.
- A subgroup of **deodorants, antiperspirants**, affect odor as well as **prevent sweating** by affecting **sweat glands**.

➤ ANTIPERSPIRANTS

- Antiperspirants are **typically applied** to the **under arms**, while **deodorants** may also be **used on feet** and other areas in the form of **body sprays**.
- In the **United States**, the **food and drug administration** classifies and regulates most **deodorants as cosmetics** but classifies antiperspirants as over-the-counter drugs.

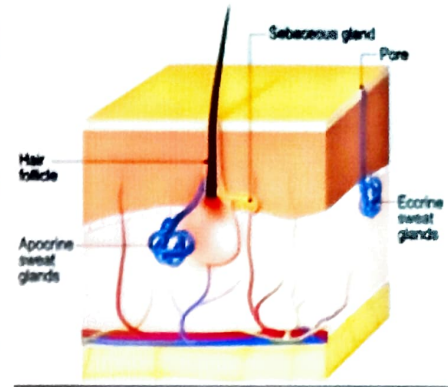


❖ PROPERTIES

- It should **not be irritant** to the **skin**.
- It should not **deteriorate clothing**.
- It should be **safe and nontoxic**.
- **Easy to use** and adhere **well on skin**.
- **Mask body odor** with perfume.
- **Absorb perspiration** or inhibit the activity of **gram+ ve bacteria**, which cause body malodour.

❖ COMPONENTS OF SWEATS

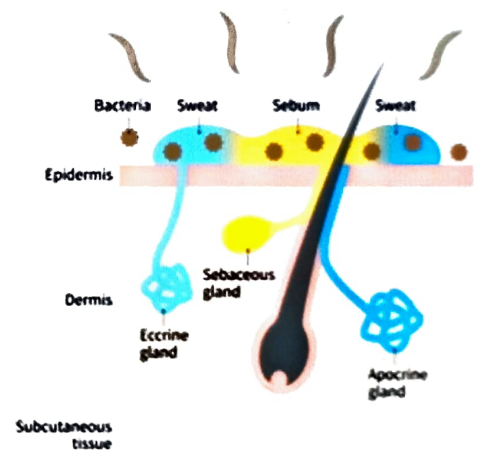
- Ethnicity: **hypotonic liquid** form of **blood plasma**.
- **Acidic substance** which is the degree of acidity is **between 4 and 6**.
- It consists **mainly of 99%** water and some **mineral salts**, which are **sodium chloride, potassium, and bicarbonate**.
- It also contains **inorganic compounds** such as **lactic acid, urea, and ammonia** which secreted by **sweat glands**.



✓ ODOR

- **Numerous odors substances** are responsible:

- **Decomposition** of the proteins
- **Lower fatty acids, steroids** and lactones (have no smell, but they fix the odor combined **action of food**)
- **Physical and psychological** conditions
- **Individual property** (dog detection)



✓ Method to control auxiliary odor

- Reduce **apocrine sweating**
- **Remove the secretions**
- Impede **bacterial growth**
- **Absorb body odor**

ACTIVE INGREDIENTS

- Aluminum chlorhydrate
- Aluminum chloride
- Basic aluminum bromide
- Basic aluminum nitrate
- Basic aluminum iodide
- Magnesium aluminum chloride

➤ TYPES OF ANTIPERSPIRANT

- Aerosol
- Sticks
- Cream

1. AEROSOL

- A substance enclosed **under pressure** and able to be released as a **fine spray**, typically by means of a **propellant gas**.

✓ FORMULATION

- An **aerosol formulation** consists of two components: the **product concentrate** and the **propellant**.
- The **product concentrate** is the active drug combined with **additional ingredients** or **co-solvents** required to make a stable and **efficacious product**.
- The concentrate can be a **solution, suspension, emulsion, semisolid, or powder**.



2. STICKS

- A sticks is a **solid delivery vehicle** cast in an elongated form.
- By **rubbing a sticks** onto a skin a **variety of cosmetics** ingredients can be delivered such as **fragrances, coloring agent, and emollients**.

✓ ACTIVE INGREDIENT OF DRY ANTIPERSPIRANTS STICKS

POWDER PHASE INGREDIENTS	LIQUID PHASE INGREDIENTGS
Avicel	Volatile silicon
Italian talc	Isopropylan 33
Ultra fine AlCl ₂	Perfume
Dry-Flo starch	
Zn-Stearate	

❖ CREAM

- A substance applied to the **body to suppress** or **mask the odor** of perspiration or other **body odors**.

✓ ACTIVE INGREDIENT OF CREAM

- **Isopropyl myristate**
- **Benton 38**
- **Ethyl alcohol**
- **Zirconium complex**
- **Silicon**
- **Perfume**

❖ AEROSOL DEODORANTS

- A system of **colloidal particles dispersed** in a **gas; smoke** or fog or containing a **liquid or gas** under pressure for dispensing as a spray or foam: a deodorant available in **aerosol cans**.

MECHANISM OF ACTION

- Most **antiperspirants** contain ingredients called **aluminum salts**.
- The main way in which they work is to **dissolve in sweat** and create a **thin coating of gel** to cover over the **sweat glands**.
- This **coating reduces** the amount of sweat released onto the **surface of the skin** for a number of hours after the **antiperspirant is applied**.