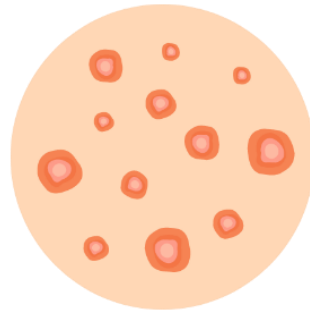




جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مستشفى الملك فهد الجامعي
King Fahad Hospital The University

Guide for Acne



What's the Acne?

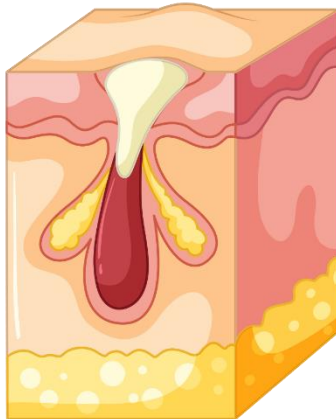
Acne is a common chronic condition that affects the sebaceous gland and hair follicle. It can be presented with multiple forms, with variations in severity, lesion type, and location, the face is frequently affected. Most common Acne is Acne Vulgaris.



At what age acne will begins?


It is no longer during puberty, there is adult onset.

In 85% of individuals, acne starts to appear by the age of 12–24 years. However, 15–35% of adults (especially women) develop acne in their 30s–40s.



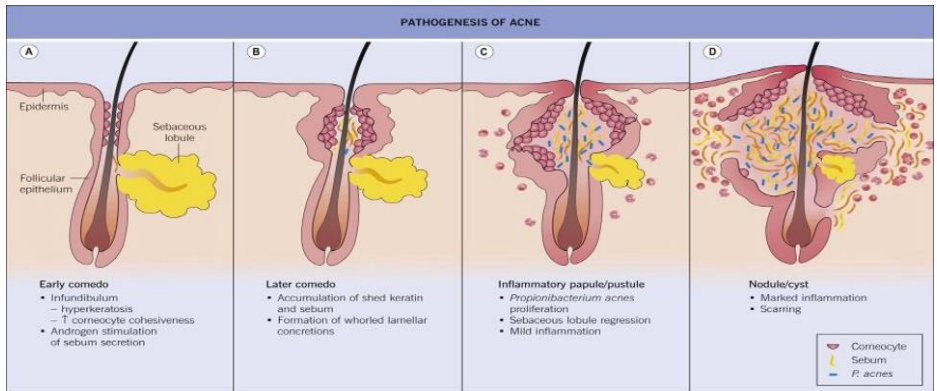


How do Acne form and the types of rashes?

- ❖ **Hyperplasia of sebaceous glands:** Active sebaceous glands increase sebum production during puberty.
 - ❖ **Follicular keratinization:** hyperkeratotic plugs form in the follicle opening. Which forms closed and open comedones.
 - ❖ **Colonization of follicles by Propionibacterium acnes,** that is part of the normal flora of the skin, which produces lipases and releases inflammatory mediators.
- 

How do Acne form and the types of rashes?

- ❖ Inflammation leads to swelling of hair follicles and formation of nodules and cystic acnes.



What are the factors that trigger the appearance of acne?

- ❖ **Hormonal fluctuations:** Hormonal changes, particularly during puberty, menstrual cycles, pregnancy, and menopause, can stimulate the sebaceous glands to produce excess oil, leading to clogged pores and acne breakouts.
- ❖ **Medications:** corticosteroids, antiepileptic, lithium, medications of hyperthyroidism, isoniazid, **Vit B6** and **B12** can stimulate or worsen acne formation.

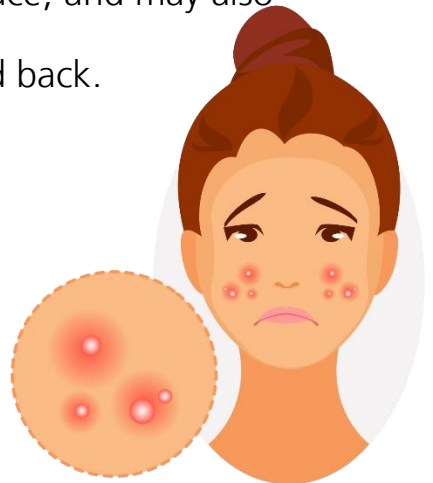


What are the factors that trigger the appearance of acne?

- ❖ **Dietary factors:** While the link between diet and acne is still being researched, some studies suggest that high-glycemic-index foods (such as refined carbohydrates and sugary foods), dairy products, and foods rich in saturated fats may exacerbate acne in susceptible individuals.
- ❖ **Stress:** Psychological stress can contribute to hormonal imbalances in the body, which may indirectly worsen acne.
- ❖ **Environmental factors:** Exposure to pollutants, high humidity, and certain occupational or environmental irritants can irritate the skin and potentially trigger acne, uncleaned make up brushes and not washing face after makeup.

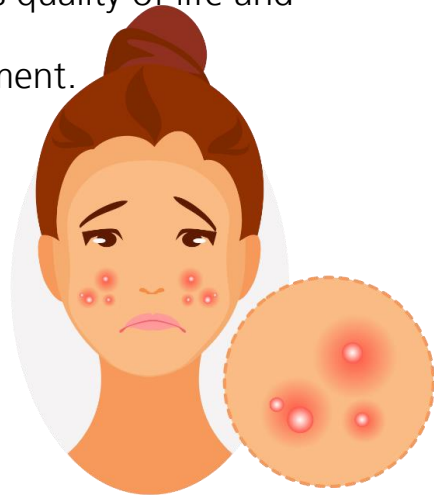
What are the severity classifications of Acne?

- ❖ **Grade 1 (Mild):** This level of acne is considered mild, presenting with comedones (whiteheads and blackheads), along with a few papules (small red bumps) and pustules (pimples). Typically, these acne lesions are limited in number and found in a small region.
- ❖ **Grade 2 (Moderate):** Moderate acne features a higher quantity of papules and pustules compared to grade 1. These lesions are more widespread, affecting a larger area of the face, and may also appear on the neck, chest, and back.



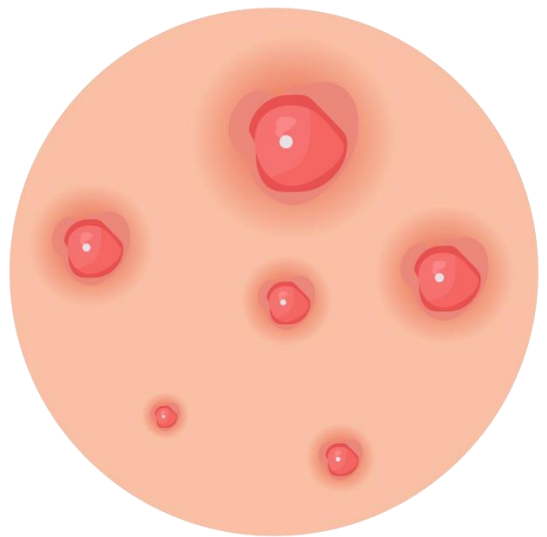
What are the severity classifications of Acne?

- ❖ **Grade 3 (Moderate to less severe):** As acne progresses to this stage, there is a greater presence of inflamed papules and pustules. Nodules may also develop, indicating deeper inflammation. The affected area extends further, possibly involving the upper arms and shoulders.
- ❖ **Grade 4 (Severe):** Severe acne is characterized by a high number of painful nodules, cysts, and widespread inflammation. The lesions are deep, and scarring is more likely. Grade 4 acne can have a significant impact on a person's quality of life and often requires aggressive treatment.



What is acneiform eruption?

Acneiform eruptions resemble acne but result from medications such as, such as corticosteroids, androgenic steroids, anticonvulsants, lithium, propylthiouracil, and isoniazid or hormonal imbalances. They can show similar lesions and locations. These eruptions typically resolve when the triggering factor is removed or treated.

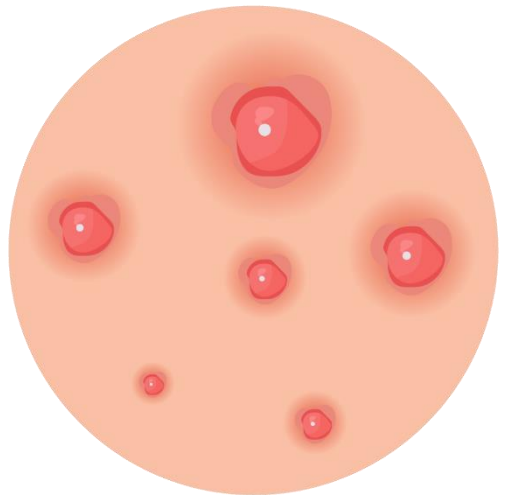


What are the types of Acne?

- ❖ **Acne Vulgaris:** Comedonal acne is primarily characterized by the presence of comedones, which are blocked hair follicles. This type includes both closed comedones (whiteheads) and open comedones (blackheads), usually appearing as small bumps on the skin.
- ❖ **Acne Excoriée:** Resulting from self-manipulation.
- ❖ **Nodular Acne:** Severe acne known as nodular acne presents with large, painful, solid lesions under the skin's surface. These nodules are deeper and more persistent than other acne types and can lead to scarring.

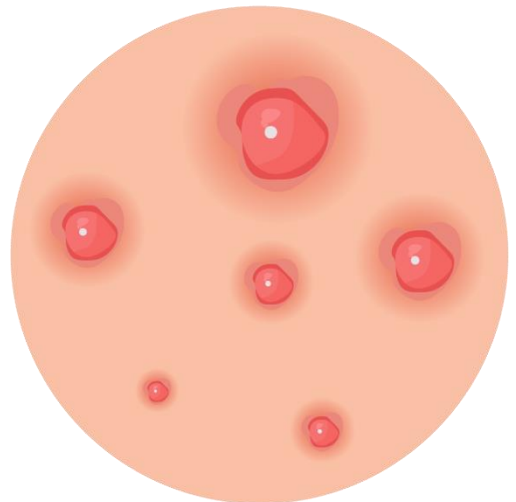
What are the types of Acne?

- ❖ **Cystic Acne:** Another severe form, of cystic acne involves deep, inflamed, pus-filled lesions. These cysts are often painful and can result in significant scarring. Treatment for cystic acne typically requires medical intervention.
- ❖ **Acne Conglobate:** A rare and severe form of acne, acne conglobate is characterized by interconnected nodules and abscesses. It commonly affects the chest, back, buttocks, and upper arms, often leading to extensive scarring.



What are the types of Acne?

- ❖ **Acne Fulminans:** An extremely rare and severe form of acne, Acne Fulminans is accompanied by systemic symptoms like fever and joint pain. It usually presents as a sudden onset of ulcerative, inflammatory nodules on the face and chest.
- ❖ **Acne due to Endocrine Disorders:** Seen in post-adolescent women with conditions such as polycystic ovarian syndrome, often with lesions primarily on the mandibular area.



What are the available acne treatment methods depending on the type and severity of acne?

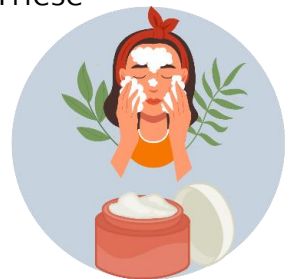
1. Supportive care:

- Maintain a clean skin

Wash your face gently after sweating and up to twice a day. Pick a cleanser that is gentle. Use your fingertips to apply it; using washcloths, sponges, or other instruments to scrub could irritate your skin.

- Choose suitable skin care

Use products that are gentle and labeled as “alcohol-free”. Avoid products with ingredients that might irritate skin, such as [exfoliants](#) and toners. These products can cause acne to appear worse.



What are the available acne treatment methods depending on the type and severity of acne?

- Shampoo regularly

Oil produced from hair can cause acne to appear on forehead. Oily hair individuals, must wash their hair more often and keep hair up away from the face.

- Adhere to your prescribed course of action

Excessive usage of new acne remedies can aggravate your skin and lead to breakouts. Allow your treatment to take effect. Several weeks or even months may pass before you notice a difference.



What are the available acne treatment methods depending on the type and severity of acne?

- Refrain from touching

Touching your face may exacerbate acne. Although it may be tempting to pop or squeeze acne, this will prolong the time it takes to go away and raise your chance of developing dark areas known as post-inflammatory hyperpigmentation and scarring.

- Sunscreen

Sun exposure can be a cause to aggravate acne.



What are the available acne treatment methods depending on the type and severity of acne?

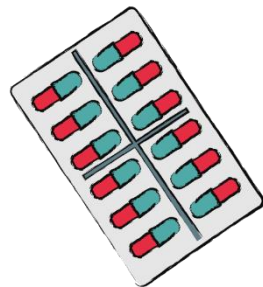
2. Pharmacological therapy:

- Mild acne

Topical treatment with [benzoyl peroxide or retinoid] or [combination topical therapy which are benzoyl peroxide plus topical antibiotic or benzoyl peroxide plus topical retinoid].

- Moderate acne

combination topical therapy which are benzoyl peroxide plus topical antibiotic or benzoyl peroxide plus topical retinoid or combination of oral antibiotic and topical retinoid or benzoyl peroxide.



What are the available acne treatment methods depending on the type and severity of acne?

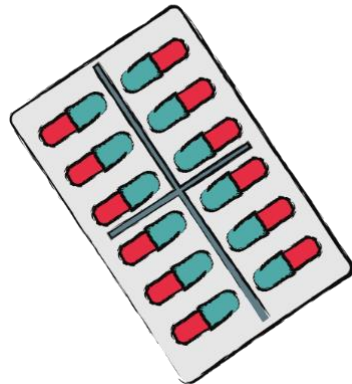
- Severe acne

Oral antibiotic plus combination topical therapy which are [benzoyl peroxide plus topical antibiotic or benzoyl peroxide plus topical retinoid] Or Oral isotretinoin.

- the preferred agent for topical antibiotics is

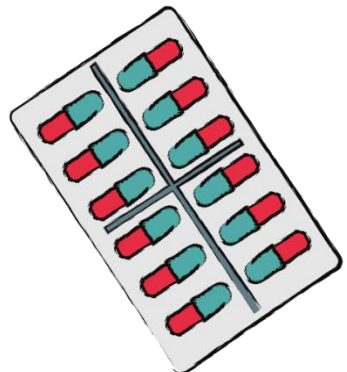
Clindamycin.

- The recommended oral antibiotic is Tetracycline.



What are the available acne treatment methods depending on the type and severity of acne?

- The combined oral contraceptive can be used for patients seeking contraception, patients with symptoms of hyperandrogenism, and patients with symptoms that worsen during menstruation.
- Topical acne therapy should be used on the entire acne prone region rather than a spot treatment of individual lesions. Instructions on the proper use of these medications should be followed.

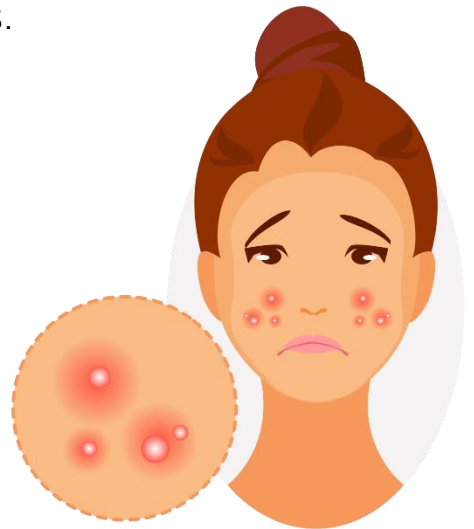


What are the ways to prevent acne scars and what are the ways to treat them?

When acne or a deep pimple heals, it can leave behind a scar. These scars, known as acne scars, do not always result from every acne flare up. Although acne scars may gradually fade, they rarely disappear entirely

How to prevent acne scars from developing?

- Early detection and treatment of acne can prevent acne scars. That's why it is recommended to treat acne early when it develops.



How to prevent acne scars from developing?

- In the beginning, acne tends to be mild and can be treated with over-the-counter medications to prevent new deep acne breakouts, which are more likely to cause scarring. Early treatment is especially important if the patient has a first degree relative who have had an acne scar because it puts him at greater risk.
- Never pick, scratch, pop, or squeeze breakouts, as this may increase inflammation in your skin, and the more inflamed the skin is, the more likely it is to develop an acne scar. It also increases the risk of infection and discoloration.

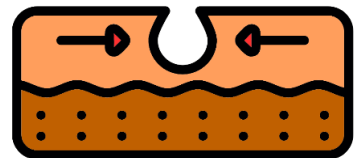


What are the risk factors for developing acne scars?

- Moderate to severe acne.
- First degree relative with acne scars.
- Pop, pick, squeeze, or scratch the acne lesions.

What is the difference between Scars and Post Inflammatory Hyperpigmentation?

1. **PIH:** dark spot of hyperpigmentation that develops following skin inflammation and fades away over time.
2. **Scar:** it never fades away and are classified into two types:
 - **Depressed (atrophic) acne scars:** it is caused by destruction and loss of collagen in the dermis and present as indentations in the skin.



What is the difference between Scars and Post Inflammatory Hyperpigmentation?

- **Raised acne scars:** when your body makes too much collagen as it tries to heal the skin and underlying tissue, you see a raised scar. These scars are more common in people who have darker skin tones.

What are the ways to treat scars and pigmentation after inflammation?

1. **Raised scars:** treated by Intralesional steroid injections that are performed monthly, or by laser.



What are the ways to treat scars and pigmentation after inflammation?

2. Depressed scars can be treated by many methods

- Laser treatment: (PDL)

It is a laser device that uses bright light that is absorbed by abnormal blood vessels. The laser uses heat to destroy these blood vessels without damaging the surrounding skin. This procedure may require at least three to four treatments, with one month intervals. It is indicated to improve erythema in scars.



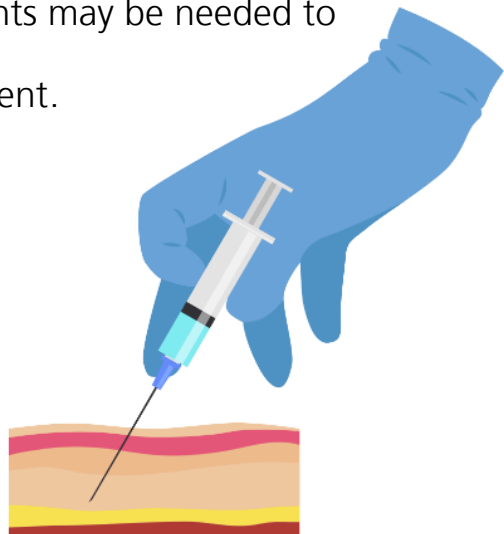
What are the ways to treat scars and pigmentation after inflammation?

- Resurfacing lasers: [Co2](#) and [Erbium yag](#) lasers

This procedure may require four to six sessions, with one-month intervals. It is indicated for all types of acne scars.

- [Subcision](#):

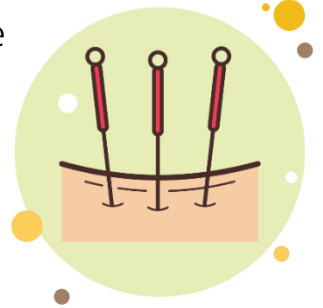
A needle is inserted under the acne scar and is manipulated to release the fibrous tissue that tethers the scar and contributes to the depressed appearance. Several treatments may be needed to achieve significant improvement.



What are the ways to treat scars and pigmentation after inflammation?

- **Subcision:**

This procedure is done for scars that are shaped like holes with round edges, while this technique is not effective on ice hole scars and square scars.



- **Microneedling:**

During this procedure, we puncture the skin with the acne scars using tiny needles. This results in the body producing new collagen and elastin.

Also called “collagen induction therapy” the new collagen helps diminish acne scars.



What are the ways to treat scars and pigmentation after inflammation?

Radiofrequency:

This procedure uses radiofrequency waves which results in the production of collagen and elastin. The more collagen and elastin, the less noticeable the acne scars became. The healing period is short (2-3 days), and the risk of post-inflammatory hyperpigmentation is low.

- **Injectable collagen bio-stimulators:**
 1. Poly L lactic acid
 2. Calcium hydroxyapatite



What are the characteristics of choosing a moisturizer for oily skin?

Individuals with acne-prone skin have to use a moisturizer with these characteristics to prevent acne breakouts:

- ✚ Choose the **water-based** moisturizer (oil-free).
- ✚ Non-comedogenic.
- ✚ Lightweight moisturizer that doesn't lead to clogged pores.



What are the guidelines for manage the oily skin?

1. Wash your face every morning, evening, and after exercise: try to avoid skin scrubbing, or cleansing makeup hard as it irritates the skin and worsens it.
2. Use oil-free skin products marked as non-comedogenic. Makeup, cleansers, and moisturizers that are labeled as oil-free are less likely to cause acne and clog the pores.
3. Use gentle foaming cleansers. Using a strong face wash can irritate your skin and increase the production of oil instead of drying it out.
4. Avoid oil or alcohol-based face wash because it irritates the skin.

What are the guidelines for manage the oily skin?

5. **Daily Moisturizing of the skin.** Applying moisturizer is so important for all skin types to keep the skin hydrated and protected. It's preferred to avoid any products that contain perfumes or oils.
6. **Wearing sunscreen outdoors.** Sunscreen protects your skin from age spots, wrinkles, and skin cancer. Individuals who have skin prone to acne, it's better to choose sunscreen that contains titanium dioxide and zinc oxide. Furthermore, it's preferable to use sunscreen with a sun protection factor (SPF) of 30 or higher.
7. **choose oil-free, water-based makeup.**



What are the bad habits to deal with oily skin?

- ✚ Intensive care and frequent face washing may expose the skin to irritation and acne flare-up.
- ✚ drying out the skin by increasing daily care products, such as astringent products, acne treatments, and scrubs that contain alcohol, which leads to exacerbation of the condition. Therefore, it is important to follow your dermatologist's plan to have healthy skin and prevent the irritation and acne breakouts.
- ✚ Do not use moisturizer for oily skin: this is not true, it needs moisturizing because making oily skin moisturized will balance its production of sebum, thus making it less oily. When oily skin is not moisturized, this stimulates the skin to compensate for this by increasing the secretion of sebum.

What are the bad habits to deal with oily skin?

- ✚ Making social media a source for knowing the appropriate care routine: this is not true, and this may lead to an adverse effect on the skin, as the increase in the number of products used may exhaust the skin. If there are no skin diseases, it is recommended to use only 3 products, including lotion, moisturizer, and sunscreen.



What is the oily skin care routine?

Morning care routine:

- A gentle foaming cleanser to remove impurities and excess oil without affecting the skin's natural barrier. It must contain exfoliants such as salicylic acid.
- Followed by a water-based moisturizer (oil-free cream).
- Apply sunscreen to protect the skin from sun damage, with a water-based formula that suits oily skin
- Use clean brushes for oil-free makeup

Night care routine:

- Makeup remover with a water-based formula (oil-free)
- cleanser
- Topical acne treatments

Sources and References:

All pictures used from [canva.com](https://www.canva.com)

Review and audit:

The content of this booklet was reviewed by consultants of the Dermatology Department at King Fahd University.

Dermatology Department
Health Awareness Unit
IAU-24-G01



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