CONDITION

Acne

Learn what causes acne, how different types of pimples are treated, when to seek medical care, and how to reduce scarring and dark marks.

WHAT IT IS
Common skin condition caused by blocked hair follicles

BODY SYSTEM
Skin

MAIN SYMPTOMS
Blackheads, whiteheads, inflamed pimples, painful lumps

WHAT CAUSES IT
Blocked follicles, bacteria, hormones, immune inflammation

HOW IT IS DIAGNOSED
Skin examination

MAIN TREATMENT
Skin care and acne medicines

CAN IT BE CURED?
Sometimes - mild acne may improve

IS IT AN EMERGENCY?
Sometimes - rapid worsening with fever

LONG-TERM OUTLOOK
Gradual improvement with possible permanent scarring

Overview

Acne is a common skin condition that develops when hair follicles become blocked with oil and dead skin cells. These follicles are often called pores. Blocked follicles can form blackheads, whiteheads, inflamed pimples, or deeper painful lumps.

Acne most often affects the face, chest, shoulders, and back because these areas have many oil-producing glands. It is especially common during the teenage years, but it can begin or continue in adulthood. Some people develop acne during pregnancy, around menstrual periods, or after starting certain medicines.

Acne is not caused by dirty skin or poor hygiene. Scrubbing hard or washing too often can irritate the skin and make inflammation worse.

Mild acne may improve with nonprescription skin care. More persistent or severe acne may need medical treatment. Early, effective care matters because deeper acne can cause permanent scars or long-lasting dark marks. Acne can also affect confidence, social activities, and emotional well-being.

Symptoms

Acne can look different from person to person. Many people have more than one type of spot at the same time.

Common acne lesions include:

After a pimple heals, it may leave a flat red, purple, brown, or gray mark. These marks are not the same as scars and often fade over time, although fading can take months. Darker skin tones are more likely to develop post-inflammatory hyperpigmentation, meaning dark color left behind after inflammation.

Acne severity is not based only on the number of pimples. The depth of the lesions, risk of scarring, affected body areas, and effect on daily life also matter.

Seek prompt medical care if acne becomes rapidly severe or is accompanied by fever, joint pain, or a general feeling of illness. This is uncommon but needs assessment.

- Whiteheads: Closed, clogged follicles that appear as small white or skin-colored bumps.
- Blackheads: Open, clogged follicles. Their dark color comes from material in the pore reacting with air, not from dirt.
- Papules: Small, raised, red or inflamed bumps without visible pus.
- Pustules: Inflamed bumps that contain pus, often called pimples.
- Nodules: Large, firm, painful lumps that develop deep in the skin.
- Cysts: Deep, painful, pus-filled lesions that have a higher risk of scarring.

Causes and risk factors

Acne develops through several linked processes. Oil glands produce excess sebum, the skin's natural oil. Dead skin cells collect inside a follicle instead of shedding normally. Bacteria that normally live on the skin, especially Cutibacterium acnes , can multiply within the blocked follicle. The immune system then causes inflammation.

Hormones called androgens can increase oil production. Androgen levels rise during puberty,

but hormonal changes can also contribute to adult acne. Some people notice flares before menstrual periods or during other hormonal changes.

Factors that may raise the chance of acne or worsen existing acne include:

People taking a prescribed medicine should not stop it because of acne without speaking with the prescriber.

Research suggests that a high-glycemic eating pattern, which includes foods that quickly raise blood sugar, may worsen acne in some people. Some studies also report an association between acne and certain dairy products. These findings do not mean that one food causes acne in everyone. Restrictive diets are usually not necessary, and major dietary changes should be discussed with a healthcare professional.

Hormonal acne may occur with conditions that increase androgen activity, such as polycystic ovary syndrome. Acne alone does not establish that diagnosis. Irregular menstrual periods, increased facial or body hair, scalp hair thinning, or fertility concerns may lead a clinician to consider hormonal testing.

- A family history of acne
- Puberty or other hormonal changes
- Oily cosmetics, hair products, or skin products that block pores
- Friction or pressure from helmets, tight clothing, masks, or sports equipment
- Picking, squeezing, or repeatedly touching lesions
- Stress, which may worsen acne even though it does not directly cause blocked pores
- Medicines such as corticosteroids like prednisone or hydrocortisone , testosterone, lithium, or some seizure medicines

Diagnosis

A healthcare professional can usually diagnose acne by examining the skin. They may ask when the breakouts began, which products or treatments have been tried, whether lesions are painful, and whether scars or dark marks are developing.

The examination helps identify the types of lesions and their severity. It also helps distinguish acne from conditions that can look similar, such as rosacea, folliculitis, perioral dermatitis, or medicine-related rashes.

Laboratory tests are not routinely needed. Testing may be considered when symptoms suggest an underlying hormonal condition. A clinician may also ask about menstrual patterns,

pregnancy plans, medicines, supplements, skin products, and family history.

Tell the clinician how acne affects daily life. Emotional distress, avoiding activities, and concerns about appearance are medically relevant and may influence treatment choices.

Treatment and management

Treatment depends on the types of lesions, their location and severity, the risk of scarring, previous treatment, pregnancy considerations, and personal preferences. Most treatments take several weeks to show clear improvement. Acne can briefly look worse when some topical treatments are first started.

Gentle skin care supports any treatment plan. Wash acne-prone skin gently, usually no more than twice daily and after heavy sweating. Use lukewarm water and a mild cleanser. Choose moisturizers, sunscreens, and cosmetics labeled "noncomedogenic" or "won't clog pores." Avoid harsh scrubs, astringents, and picking or squeezing lesions.

Benzoyl peroxide is available without a prescription in many places. It reduces acne-causing bacteria and helps limit antibiotic resistance. It can cause dryness or irritation and may bleach hair, towels, or clothing.

Topical retinoids, such as adapalene or tretinoin, help prevent pores from becoming blocked. They are useful for blackheads, whiteheads, and inflamed acne and can help maintain improvement. Irritation, peeling, and increased sensitivity to sunlight may occur, especially early in treatment. Retinoid medicines should be avoided during pregnancy unless a qualified clinician specifically advises otherwise.

Azelaic acid helps treat clogged pores and inflammation. It may also help fade dark marks after acne. Salicylic acid can help open blocked pores and is included in some nonprescription products. These options may still irritate sensitive skin.

Topical antibiotics reduce inflammation and bacteria. To limit antibiotic resistance, they are generally used with benzoyl peroxide rather than alone. Using several irritating products at once can damage the skin barrier, so a clinician or pharmacist can help simplify a routine.

For moderate or severe inflammatory acne, a clinician may consider an oral antibiotic. These medicines are usually combined with benzoyl peroxide and another topical treatment. Antibiotic use is limited to the shortest practical period because bacteria can become resistant. Oral antibiotics can also cause side effects and are not suitable for everyone.

Hormonal treatments may help some women and adolescent girls. Certain combined birth control pills can improve acne by reducing androgen effects. Spironolactone, a medicine that blocks some androgen activity, may be considered for persistent hormonal-pattern acne.

These medicines require a review of health history, possible side effects, pregnancy plans, and monitoring needs.

Oral isotretinoin may be considered for severe nodular acne, acne that is causing scars, or acne that has not responded to standard treatment. It reduces oil production and affects several causes of acne at once. Treatment requires close medical supervision.

Isotretinoin causes severe birth defects if taken during pregnancy. People who can become pregnant must follow strict pregnancy-prevention and testing requirements. Clinicians may also monitor blood tests and ask about dryness, headaches, vision changes, muscle symptoms, and mood. Mood changes should be reported promptly, although research has not established that isotretinoin causes depression in every person who experiences it.

Procedures can sometimes support medical treatment. A dermatologist may inject a large painful lesion with a corticosteroid, remove certain clogged pores, or use carefully selected treatments for scars and dark marks. Trying to drain deep acne at home increases the risk of infection and scarring.

During pregnancy or when planning pregnancy, discuss all prescription and nonprescription acne products with a healthcare professional. Some commonly used acne medicines, especially oral isotretinoin and retinoids, are not appropriate during pregnancy.

Complications

Scarring is more likely with deep nodules and cysts, delayed treatment, or repeated picking. Scars may appear as pits, broader depressions, or raised areas. Scar treatment is usually considered after active acne is controlled and may involve procedures chosen for the person's skin type and scar pattern.

Flat dark or red marks after acne are common. They are changes in skin color rather than permanent textural scars. Daily sun protection can prevent these marks from becoming darker and may help them fade more evenly.

Acne can affect mental health at any severity. Some people experience embarrassment, social withdrawal, low self-esteem, anxiety, or depression. These effects deserve attention even when the acne appears mild to others.

Seek immediate help for thoughts of self-harm or suicide. Emergency care is also appropriate for trouble breathing, facial or throat swelling, or widespread blistering after using a medicine. A severe headache with vomiting or vision changes while taking isotretinoin or a tetracycline antibiotic needs urgent medical assessment.

Follow up

Routine follow-up allows a clinician to check progress, side effects, and whether the treatment is practical to continue. Many treatment plans are reviewed after about 8 to 12 weeks because acne improves gradually. Stopping too early can make an effective treatment seem unsuccessful.

Contact a healthcare professional sooner if irritation is severe, painful lesions are increasing, scars are forming, or acne is having a major emotional effect. People taking prescription medicines should follow the monitoring plan provided by their clinician.

Once acne improves, a maintenance treatment may help prevent new blocked pores. Maintenance often relies on a non-antibiotic topical treatment rather than continued antibiotic use. The most suitable option depends on skin sensitivity, pregnancy considerations, and the pattern of previous acne.

Routine care is appropriate for ongoing breakouts, treatment adjustments, dark marks, and scar concerns. Urgent assessment is needed for rapidly worsening painful acne with fever or illness, serious medicine reactions, severe headache with vision changes, or major changes in mental health.

Sources

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