CONDITION

Blackheads

Learn why blackheads form, how they differ from dirt or normal pores, and which skin care and acne treatments can help prevent and remove them.

WHAT IT IS
Common type of acne with open comedones

BODY SYSTEM
Skin

MAIN SYMPTOMS
Small dark spots, visible follicle openings, little or no redness, mild tenderness

WHAT CAUSES IT
Follicles blocked by oil and dead skin cells

HOW IT IS DIAGNOSED
Skin examination

MAIN TREATMENT
Gentle skin care and topical acne treatments

CAN IT BE CURED?
No, new plugs can keep forming

IS IT AN EMERGENCY?
Sometimes, trouble breathing after an acne product

LONG-TERM OUTLOOK
Usually harmless but can be persistent

Overview

Blackheads are small, dark spots that form when hair follicles become blocked with skin cells and oil. The medical term is open comedones . They are a common type of acne and often appear on the nose, forehead, chin, chest, shoulders, or upper back.

A hair follicle is a tiny opening in the skin that contains a hair and an oil-producing gland. When oil and dead skin cells collect inside the follicle, they can form a plug called a comedone. If the opening stays exposed to air, the material at the surface becomes dark. This produces a blackhead.

The dark color is not trapped dirt. It develops when pigments and other material in the plug are exposed to air. Washing more forcefully will not remove the underlying blockage and may irritate the skin.

Blackheads are not dangerous, but they can be persistent. They may occur alone or alongside whiteheads, inflamed pimples, or deeper acne spots. Picking or squeezing them can injure the skin and increase the chance of inflammation, dark marks, or scarring.

Symptoms

Blackheads usually look like small, flat or slightly raised spots with a dark center. The follicle opening may appear wider than the surrounding pores.

Typical features include:

Blackheads are most common in the central part of the face, especially the nose and chin. They can also develop where sweat, oil, or friction collects, such as the hairline, chest, back, or under tight clothing and equipment.

Not every dark dot on the nose is a blackhead. Sebaceous filaments are normal structures that help move oil to the skin surface. They tend to be smaller, lighter, and more evenly spaced than blackheads. They may look gray, tan, or yellow and often return soon after being removed. They do not need treatment.

A spot that is growing, bleeding, changing color or shape, or looking different from nearby spots should not automatically be treated as a blackhead. A healthcare professional can examine it to rule out another skin condition.

- A black, brown, or dark gray center
- A small visible opening at the skin surface
- Little or no redness around the spot
- No pain or only mild tenderness
- Several spots in areas that tend to be oily

Causes and risk factors

Blackheads develop when dead skin cells do not shed normally from a follicle and mix with sebum, the skin's natural oil. The mixture forms a plug. Because the follicle remains open, the plug is visible at the surface.

Several processes can contribute:

Hormonal changes during puberty often increase oil production. Blackheads can also appear or worsen during adulthood, including around menstrual cycles or other hormonal changes. Some

medicines, including certain corticosteroids like prednisone or hydrocortisone , lithium, or testosterone products, may contribute to acne in some people. A prescribed medicine should not be stopped without speaking with the prescriber.

Heavy or oily cosmetics, hair products, sunscreens, and skin care products may block follicles in people who are prone to acne. Labels such as "noncomedogenic," "won't clog pores," or "oil-free" may help when choosing products, although no label guarantees that a product will suit every person.

Friction and trapped sweat can contribute to acne. Examples include tight hats, masks, sports padding, chin straps, and clothing that rubs the back or chest. This is sometimes called acne mechanica.

Blackheads are not caused by poor hygiene. Frequent scrubbing, harsh soaps, or abrasive cleansing tools can damage the skin barrier and make irritation worse. Stress does not directly create a follicle plug, but it may worsen existing acne in some people.

Research has examined whether diet affects acne. Some evidence suggests that high-glycemic eating patterns may worsen acne for certain people, but food is not the sole cause of blackheads. Restrictive diets are not routinely needed. A clinician can help evaluate a suspected pattern without removing important foods unnecessarily.

- Increased oil production
- Buildup of dead skin cells inside follicles
- Hormonal changes that affect oil glands
- Skin products that block follicles
- Friction, pressure, heat, or sweating in acne-prone areas

Diagnosis

A healthcare professional can usually identify blackheads by examining the skin. Laboratory tests or imaging are not normally needed.

The clinician may ask when the spots began, which skin and hair products are used, and whether there are painful pimples, menstrual changes, or medicines that could affect the skin. The exam may include the face, chest, shoulders, and back to determine the type and extent of acne.

It can be useful to distinguish blackheads from:

A dermatologist is a doctor who specializes in skin conditions. Dermatology assessment may

be helpful when the diagnosis is uncertain, over-the-counter care has not worked, or blackheads occur with widespread, painful, or scarring acne.

- Sebaceous filaments, which are normal oil channels
- Whiteheads, which are closed follicle plugs
- Milia, which are small, firm cysts containing keratin
- Enlarged pores or scars
- Moles and other pigmented skin growths

Treatment and management

Treatment aims to clear existing follicle plugs and prevent new ones. Improvement is gradual because treatments affect how skin cells shed over time. Trying many products at once can cause irritation and make it difficult to tell which one is helping.

Gentle skin care is an important starting point. Wash acne-prone areas up to twice daily and after heavy sweating, using lukewarm water and a mild cleanser. Apply cleanser with the fingertips rather than a scrub, brush, or rough cloth. Choose noncomedogenic moisturizers, cosmetics, and sunscreen.

Several nonprescription ingredients may help.

Salicylic acid helps loosen dead skin cells and open blocked follicles. It is often included in cleansers or leave-on products. Dryness, peeling, or stinging can occur, especially when several exfoliating products are combined.

Adapalene is a topical retinoid available without a prescription in some countries. Retinoids are vitamin A-related medicines that help prevent follicle plugs from forming. They are applied to the acne-prone area rather than only to visible blackheads. Irritation and increased sensitivity to sunlight may occur, particularly when treatment begins.

People who are pregnant, planning pregnancy, or breastfeeding should discuss acne products with a healthcare professional. Topical retinoids are generally avoided during pregnancy. Product availability and labeling also vary by country and age, so package instructions should be followed.

Azelaic acid helps keep follicles open and can also improve acne-related dark marks. It may be available without a prescription or in stronger prescription forms, depending on location.

Benzoyl peroxide is more useful when blackheads occur with red or pus-filled pimples. It reduces acne-causing bacteria and inflammation but is not usually the main treatment for

blackheads alone. It can dry the skin and bleach towels, clothing, or hair.

A simple routine may be easier to tolerate than several active products. Introducing one product at a time, using a noncomedogenic moisturizer, and following label directions can limit irritation. Daily broad-spectrum sunscreen helps protect irritated skin and may reduce the worsening of dark marks.

Visible improvement commonly takes several weeks. Stopping as soon as the first spots clear may allow new blackheads to form. A clinician can advise how long to continue treatment and whether maintenance therapy is appropriate.

Prescription options include stronger topical retinoids and combination acne medicines. Oral antibiotics are not a standard treatment for blackheads alone. They may be used for certain forms of inflammatory acne, usually as part of a broader plan intended to limit antibiotic resistance.

A dermatologist may remove selected blackheads with a sterile comedone extractor. This can provide quicker cosmetic improvement, but it does not prevent new plugs. Chemical peels or other office procedures may be considered in some cases. These procedures can irritate the skin or affect pigmentation and should be selected according to the person's skin type and acne pattern.

Squeezing with fingernails, using needles, or forcefully scraping the skin is not recommended. Pore strips may temporarily remove surface material, but they do not correct the process inside the follicle. Strong suction devices and at-home extraction tools can cause bruising, broken blood vessels, or skin injury.

Complications

Blackheads themselves usually do not cause medical complications. However, a blocked follicle can sometimes become inflamed and develop into a red, tender pimple. People who have blackheads may also have other forms of acne that carry a greater risk of scarring.

Picking, squeezing, or aggressive extraction can lead to:

Post-inflammatory hyperpigmentation is a flat dark mark left after skin inflammation. It is more noticeable and may last longer in darker skin tones. It is not the same as a scar, although both may occur after repeated skin injury.

Acne can also affect confidence, mood, and social activities. Emotional effects are a valid reason to seek care even when the acne is not physically severe.

- Redness, swelling, or infection

- Persistent dark or light marks
- Damage to the follicle and surrounding skin
- Permanent acne scars

Follow up

Routine medical follow-up is appropriate if blackheads remain bothersome after a consistent trial of appropriate over-the-counter care. An appointment is also reasonable if the skin becomes repeatedly irritated, if acne is leaving marks or scars, or if it is affecting emotional well-being.

Seek earlier clinical advice if blackheads occur with numerous painful nodules, rapidly worsening acne, or signs of infection such as increasing warmth, swelling, drainage, or fever. These features are not typical of uncomplicated blackheads.

Stop using a new skin product and seek prompt medical advice if it causes severe burning, blistering, marked swelling, or a widespread rash. Emergency care is needed for trouble breathing, faintness, throat tightness, or swelling of the face, lips, tongue, or eyes after using an acne product. These may be signs of a serious allergic reaction, which is rare.

A solitary dark spot that changes, bleeds, does not heal, or looks unlike the person's other spots should be examined rather than repeatedly treated as a blackhead.

Sources

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