

Acne

What is Acne?

Over 20 million people suffer from occasional acne outbreaks making it the most common skin disorder in the United States. Acne results from the blockage of the oil glands in the skin. Specifically, blockage occurs from "sticky" cells that clog pores, bacteria buildup, and/or an overproduction of sebum (semi-fluid discharge from glands in the skin). These blockages decrease the skin's natural ability to secrete excess oils and causes the pores to form visible bumps on the surface. Acne outbreaks usually occur on the face, neck, chest, and shoulders and back.

Sticky skin cells

As normal skin cells die inside the follicle, they are constantly being carried away to the surface of the skin by sebum. Sometimes the follicle produces cells that become sticky and plug up the opening as they attempt to leave the follicle.

Bacteria buildup

All of us have bacteria living on the surface of our skin and inside the follicles. Normally, these bacteria are not harmful. But if you have acne, they can become quite troublesome. If a follicle is plugged, the bacteria grow rapidly inside and turn the trapped sebum into a very irritating substance.

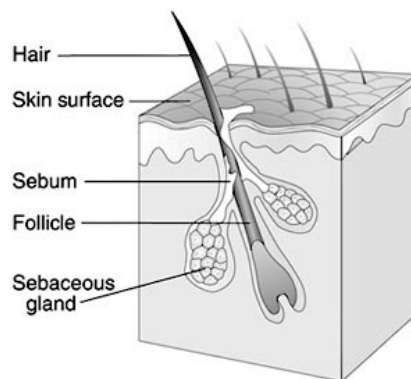
Too much sebum

Hormone changes often cause certain glands to produce too much sebum. If sticky cells already block the follicles and the excess sebum has no way to escape, the follicles swell and sometimes even burst.

What are the different forms of acne?

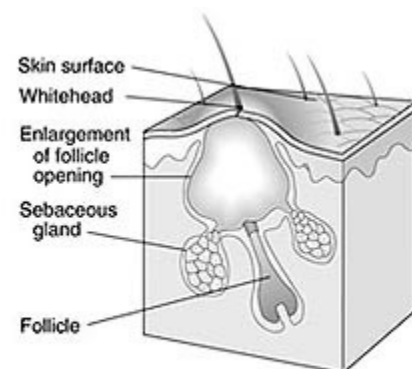
Human skin normally secretes oil through the sebaceous gland that is connected to a hair-containing canal called a follicle. When the sebaceous gland is unable to effectively release the necessary oils to the skin due to blockage, pores can form blackheads, whiteheads or rupture and develop pimples. Most people have or have had all of the different forms of acne. The following is a description of the most common forms.

Normal Pilosebaceous Unit



Whiteheads

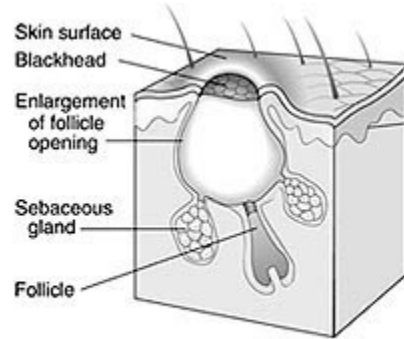
When plugged follicles continue to produce sebum and there's no way for it to escape, the follicle swells and makes a bump on the skin surface. This is a whitehead, or a Closed Comedo (plug).



Closed Comedo (Whitehead)

Blackheads

When the sebum forces the plug to the surface of the skin so that the dark tip may be seen, it is called a blackhead or open comedo. Its dark color is caused by increased skin pigment. It is not dirt and cannot be scrubbed away.



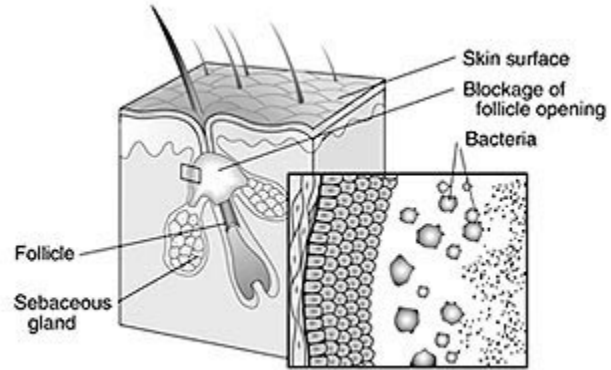
Open Comedo (Blackhead)

Inflammatory Papules

When the plug doesn't come to the surface of the skin and dead cells continue to build up, pressure mounts. If the follicle wall bursts, the trapped sebum and bacteria spread into the surrounding tissue and cause redness, swelling and soreness. This is a pimple or papule.

Pustules

After a pimple is formed, the body reacts as if there were an infection. White blood cells attack the sebum and bacteria causing pus to form. This creates a pustule. Most pustules disappear by themselves in about 10 days.



Microcomedo

Myths about the causes of acne

There are several myths about what causes acne. Chocolate, soft drinks and greasy foods are often considered to be initiators of acne outbreaks. But research has shown that foods appear to have little effect on the development and course of acne in most people. Sexual behaviors have also been linked to acne, but there is no scientific evidence to support this myth either. Another common myth is that dirty skin causes acne; but blackheads and other acne lesions are not caused by dirt. Exposure to dirt is not considered to be a risk factor for acne.

Who gets acne?

People of all ages get acne, but it is most prevalent in adolescents. Roughly 85 percent of adolescents and young adults between the ages of 12 and 24 have incidents of acne outbreaks. All ethnicities are susceptible to acne, but it is more common among Caucasians. Generally for most people, incidents of acne outbreaks tend to significantly decrease by the time they reach their thirties. However, some people continue to experience occurrences in their forties and fifties.

What types of treatments are available?

There are many reasons why a person may develop acne. These may include stress, an increase or significant change in hormones, and/or failure to keep the skin clean. The following is a list of ways to treat acne once it does occur:

Non-prescription medications may be helpful. Those that contain 2.5%-5% benzoyl peroxide are recommended. Higher concentrations are available but may be irritating to the skin. Regardless of the concentration, discontinue use if your skin becomes irritated.

AVOID SQUEEZING PIMPLES. This can cause permanent scarring. The larger the pustule or cyst is, the greater likelihood of scarring. Sometimes this reaction can be improved upon if your medical provider can treat the cyst early.

Wash the skin gently once or twice a day. Before bedtime is extremely helpful.

For severe cases of acne, medications such as topical and/or oral antibiotics, tretinoin (retin A), benzoyl peroxide, isotretinoin (Accutane®) or a combination, may be suggested by your medical provider. These medications help to reduce the inflammation of the acne as well as help to prevent new pimples from forming. Consult your medical provider prior to using any of these.

Birth control pills have been found to be effective in treating acne in clinical trials.

What factors can contribute to acne or make it worse?

Several factors can contribute to the cause of acne or make it worse. Changing hormone levels in girls and women may cause a flare in their acne 2 to 7 days before their menstrual period starts. Hormonal changes related to pregnancy or starting or stopping birth control pills can also cause acne. Stress, particularly severe or prolonged emotional tension, may aggravate the disorder.

In addition, certain drugs, including anabolic steroids, lithium, and barbiturates, are known to cause acne. Greasy cosmetics may alter the cells of the follicles and make them stick together. Friction caused by leaning on or rubbing the skin or the pressure from bike helmets, backpacks, or tight collars can contribute to or worsen acne. Also, environmental irritants (such as pollution and high humidity), squeezing or picking at blemishes, and hard scrubbing of the skin can make acne worse.

CAUTION

Read product labels. Some "skin products" can make acne worse. Certain brands of moisturizer and sunscreen are made specifically for the face and help to avoid clogging pores.

What can be done to prevent acne?

Taking good care of your skin can prevent most types of acne. For more severe cases of acne that do not respond to treatment, see a medical provider.

Do not use abrasive soaps. They may damage pores and leave skin too dry.

Apply an oil-free moisturizer after washing. This will help replenish the skin's own moisture and keep oil glands from overproducing.

Avoid using oil-based make-up.

Shampoo regularly. This helps keep oily hair from having too much contact with the skin. Tying back hair or bangs may also help troubled breakout spots like the forehead and shoulders.

Eat a sensible diet. There is no evidence to indicate that any particular foods cause acne but eating right and drinking 6-8 glasses of water a day can help keep skin healthy.

Avoid excessive sun exposure (which will also help prevent skin cancer).

For More Information:

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