
Acne

What is acne?

Acne occurs when the skin's sebaceous glands overproduce oil and it becomes trapped in the sebaceous ducts leading to the skin's surface. This initial lesion of a blocked sebaceous duct is called a comedone. If the comedone is large, it is usually called a blackhead. Many smaller comedones can usually be felt under the skin as hard bumps. Blackheads may be caused by other conditions as well as acne.

Acne is composed of a combination of comedones and pimples. A pimple starts when the oil backs up and damages the duct. The body's immune system tries to repair the damage and the area becomes swollen, red and sometimes painful. Bacteria invade the area and can produce a pustule but these invaders are not the cause of acne.

Many teenagers produce lots of oil without developing acne, so why does the comedone start? The answer to this is not yet known. Dietary toxins such as bromine in bleached flour and sodas may play a role. Bromide-acne is well recorded in the older medical literature. It is certainly good advice to eat a healthy diet free of bleached flour and sodas and to include fresh fruits and vegetables and adequate protein. In some people with acne, just improving the diet can improve the acne.

What steps can be taken to prevent acne?

A study by a dermatologist three years ago showed that acne-sufferers improved after two months of a daily vitamin supplement containing Vitamin A, Vitamin E, Vitamin B6, Pantothenic acid, Zinc, Selenium, Chromium and the herb, Barberry. These same vitamins, minerals and barberry have shown effectiveness in treating diabetes. Several recent studies demonstrate a relationship between acne and insulin resistance which can lead to diabetes.

Even though the cause of acne is not yet known, effective treatments exist. The two main groups of drugs are the retinoids and antibiotics.

Retinoids are derivatives of Vitamin A and this class includes prescription drugs: Retin-A, Differin, Tazorac, and Accutane. The retinoids slow down sebaceous gland activity and also make cells less sticky so they don't clog up the sebaceous duct. Usually improvement is seen with topical Retin-A and Tazorac within 2 months of regular application. Many people have severe irritation of the skin using these drugs. Soap must be avoided to prevent this problem. Soap-free cleansers include Cetaphil Gentle Skin Cleanser, Aquanil Cleanser, or Pureblend Cleanser.

Antibiotics such as Doxycycline (prescription required) can improve the appearance of acne within a week of beginning the drug. This is believed to be due to the anti-inflammatory effects rather than the antibacterial effect of the drug. However, long term use of oral antibiotics has been tied to drug resistance and the sometimes fatal condition, pseudomembranous colitis. Topical antibacterials include benzoyl peroxide and Cleocin T, both of which can improve appearance of acne within the first week.

Some acne patients have large, deep, painful pimples called cysts which result in scarring. Many times the antibiotics or topical retinoids are not effective for this form of acne. The oral retinoid, Accutane, has demonstrated effectiveness in clearing this type of acne and preventing the associated scars. This drug has undergone increased scrutiny by the FDA in recent years due to its many side effects.

Accutane is available under a physician's prescription. A course of treatment with Accutane is five months. Blood tests are performed each month to check for side effects while taking Accutane. After discontinuing Accutane, a milder form of acne may return, so it's recommended to begin using a topical retinoid after Accutane. Laser resurfacing can improve the scarring associated with this form of acne.

How can protect my skin?

All these drugs can make one more sensitive to developing a sunburn. It's important to protect the skin using sunscreen, protective clothing, a hat, and avoidance of peak sun hours.

Applications of topical Vitamin C serum and Oil-Less moisturizer are excellent products for clearing acne and keeping the skin from drying out while using retinoids.