

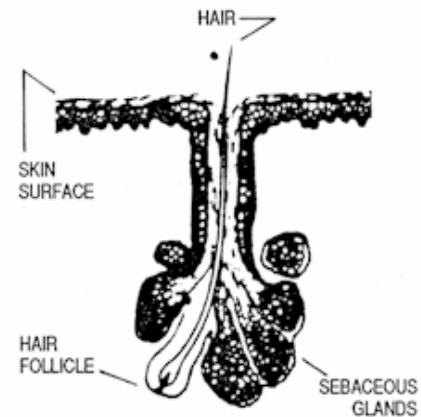
Acne

Introduction

Acne is the most common skin disease worldwide. It is estimated that 80-95% of all adolescents will have acne at some point in their lives, and in some cases the acne will continue into adulthood. Genetics play a role in the development of acne and thus there is a tendency for the skin disease to run in families. Males and females are equally affected, but males tend to have more severe cases. A number of factors contribute to the development of acne lesions. These include internal hormones, bacteria, some medications, certain chemicals/products that come in contact with the skin, local pressure to the skin surface, and stress. While acne cannot be cured, it can be controlled. The goal of treating acne is to reduce the symptoms and to prevent permanent scarring.

Pathophysiology

Acne lesions develop in the oil-producing structures of the skin called pilosebaceous follicles. These follicles are present in large numbers on the face, chest, shoulders and upper back. Each follicle consists of a hair follicle and sebaceous gland. The glands secrete an oily mixture called sebum which normally passes through the hair follicle to the skin surface. Acne occurs when the normal route of sebum to the skin surface is blocked by dead skin cells, bacteria, hormones and extra oil protection. The obstruction leads to swelling and the development of blackheads, whiteheads, papules and pustules. Some patients will also develop nodules and cysts. These are inflammatory lesions located deep within the dermis and may cause scars.



Treatment options

Non-prescription medications are available over the counter to treat mild forms of acne. These include benzoyl peroxide and salicylic acid. Benzoyl peroxide inhibits the bacteria that cause acne. It will bleach clothing, towels, carpet, etc. Salicylic acid causes a mild shedding of the skin surface which helps open up the pores.

Topical antibiotics are commonly used in the treatment of acne and are often prescribed along with a retinoid or benzoyl peroxide. They work primarily on inflammatory acne lesions. Clindamycin and Erythromycin are the most frequently used topical antibiotics. There are also medications that combine a topical antibiotic and benzoyl peroxide; these include Benzamycin and Benzaclin. The combination medications have been found to be more effective than using either medication alone.

Topical retinoids are used in the treatment of both inflammatory and non-inflammatory acne. These medications require a prescription and include Tretinoin (Retin A), adapalene, (Differin) and tazarotene (Tazorac, Avage). Occasionally, patients will notice a worsening of their acne during the initial weeks of treatment. This does not mean the medication is not working, and patients should continue to use as directed. After 8-12 weeks, most patients will notice visible improvement in their acne. Retinoids are typically applied at bedtime and patients should wait at least 30 minutes after washing their face to apply the medication. In addition, these medications decrease UV protection and patients should wear a daily sunscreen.

Oral antibiotics may be used in the treatment of acne. They decrease bacteria that play a role in the development of acne lesions and have anti-inflammatory effects. Commonly used antibiotics include Amoxicillin, Bactrim, Doxycycline, Erythromycin, Minocycline or Tetracycline.

It usually takes 6-8 weeks of antibiotic use to see improvement in acne and some patients may need to be on oral antibiotics for several months.

Accutane; also known as Isotretinoin, is a systemic Vitamin A derivative. It is reserved for the treatment of severe inflammatory or nodulocystic acne. There are a number of potential side effects associated with the use of this medication. The most serious of these include birth defects if Accutane is used during pregnancy and the possibility of developing depression while taking Accutane. Because of these risks patients prescribed Accutane are closely monitored by their health care provider. In addition, this treatment requires that female patients use two methods of birth control and have monthly pregnancy tests. All patients on Accutane will need monthly blood tests to check liver function and triglyceride levels.

Other measures that should be followed

- Wash the skin once or twice a day with a mild soap. Do not scrub, as this may actually worsen acne.
- Some skin care products, hair products, sunscreens and cosmetics may aggravate acne. Ask your health care provider for recommendations of products that are acceptable options.
- There is no evidence that certain foods cause acne. However, if you notice a relationship between a specific food and acne, avoid it. Also, eating a balanced diet that includes adequate water intake is important to maintain healthy, clear skin.
- Stress can cause an increase in acne and has a number of other negative effects on the body. Try to get an adequate amount of sleep and limit your amount of stress.
- There are certain medications that can cause or worsen acne. These include progestin-dominant birth control pills, Depo-Provera[®], androgens, Lithium, ACTH, INH, bromides, iodine, barbiturates, steroids and Dilantin. Talk with your health care provider if you have concerns that a medication may be worsening your acne. **DO NOT** stop taking the medication.
- Avoid picking and squeezing acne lesions, as this can delay healing and cause scarring.

Other important points

- Do not treat yourself with large amounts of Vitamin A. Such self-treatment can lead to serious side effects, including liver damage.
- Use of antibiotics, especially for long periods of time, may result in yeast infection, gastrointestinal irritation and sensitivity to sunlight.
- Before using any topical medication, it is wise to test for a possible adverse reaction. This can be done by gently rubbing a small amount of a new medication into the skin on the inside of the wrist. A "reaction" or sensitivity, if there is one, is likely to show up in about 24 hours.

Remember

Notify your health care provider if you have any of the following:

- Excessive redness, itching or swelling of the affected skin
- Fever
- Pus-like drainage from treated areas of skin
- Questions about your condition

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>