ACNE

DEFINITION

Acne is a common skin disease characterized by pimples on the face, chest, and back. It occurs when the pores of the skin become clogged with oil, dead skin cells, and bacteria.

DESCRIPTION

The medical term for acne is acne vulgaris. It is the most common of all skin diseases, affecting about seventeen million Americans. Acne can occur at any age, but it is most common among adolescents. Nearly 85 percent of people between the ages of twelve and twenty-five develop acne. Up to 20 percent of women over twenty-five develop mild acne. The disease is also sometimes found in newborns.

Acne is a disease of the sebaceous (pronounced see-BAY-shus) glands. These glands lie just beneath the surface of the skin. They produce an oil called sebum, which keeps the skin moist. At puberty, a person's body may begin to produce an excess of sebum. Puberty is the period of life when a person's sex hormones become active. The male sex hormone called androgen causes an over-production of sebum.

When excess sebum combines with dead skin, a hard plug, or comedo (pronounced KO-mee-do), is formed. The comedo can block skin pores. Two types of comedos can occur. They are known as whiteheads and blackheads.

More serious forms of acne develop when bacteria invade blocked pores. A pimple forms when sebum, bacteria, skin cells, and white blood cells are released into tissue around the pore. The pimple may then become inflamed. Inflamed pimples near the skin are called papules. Those that form deeper in the skin are called pustules. The most severe type of acne occurs when cysts (closed sacs) or nodules (hard swellings) form.

Acne often causes scarring of the skin. This occurs when new skin cells form to replace damaged cells. The new skin is usually not formed very easily, causing an unevenness that produces scars. Acne occurs most commonly on the face, chest, shoulders, and back because those are the places that sebaceous cells occur.

CAUSES

The exact cause of acne is not known, however, several risk factors have been identified.

- **Age.** Because of the effect of sex hormones, teenagers are quite likely to develop acne.
- **Cosmetics.** Make-up and hair sprays that contain oils can make acne worse.
- **Diet.** Acne is not caused by diet, but some foods can make the disease more serious.
- **Disease.** Hormonal disorders can increase the severity of acne problems in girls.
- **Drugs.** Acne can develop as a result of using certain drugs, such as tranquilizers, antibiotics, oral contraceptives, and anabolic steroids. Steroids are synthetic hormones that may sometimes be abused by athletes to increase the size of their muscles.
- **Environment.** Acne can become worse as a result of exposure to oils, greases, and polluted air. Sweating in hot weather can also make the condition worse.
- **Gender.** Boys are more likely to develop acne and tend to have more serious cases than girls.
- **Heredity.** Acne is more common in some families than in others.
- **Hormonal changes.** Acne can flare up during menstruation, pregnancy, and menopause. Menopause is the period in a woman's life when her body stops producing certain hormones.
- **Personal hygiene.** Strong soaps, hard scrubbing, and picking at pimples can make acne worse.
- **Stress.** Emotional stress can contribute to acne.

SYMPTOMS

Acne is often not apparent to an observer. Inflamed pores, however, can cause pain or itching. The most troubling aspect of acne for many people is the scarring that can occur. And, while acne may not be very noticeable, individuals tend to be sensitive about their appearance. Teenagers especially may become concerned about the way other people react to them.

TREATMENT

Acne treatment consists of reducing sebum production, removing dead skin cells, and killing bacteria. Treatment methods differ depending on how serious the acne is.

PROGNOSIS

Acne cannot be cured. However, it can be controlled in about 60 percent of patients with the drug isotretinoin. Improvement usually takes at least two months, and the problem may recur after treatment has been stopped. Inflammatory acne that results in the formation of scars may require one of the more aggressive treatments already described.

PREVENTION

There are no sure ways to prevent acne. However, the following steps tend to reduce flare-ups of the condition:

- Gently wash—do not scrub—the affected areas once or twice every day.
- Avoid rough cleansers.
- Use makeup and skin moisturizers that do not produce comedos.
- Shampoo often and wear hair away from the face.
- Eat a well-balanced diet and avoid foods that trigger flare-ups.
- Give dry pimples a limited amount of sun exposure unless otherwise directed by your doctor.
- Do not pick or squeeze pimples.
- Reduce stress.

http://www.faqs.org/health/Sick-V1/Acne.html

BURNS AND SCALDS

DEFINITION

Burns are injuries to tissues caused by heat, friction, electricity, radiation, or chemicals. Scalds are a type of burn caused by a hot liquid or steam.

DESCRIPTION

Burns are classified according to how seriously tissue has been damaged. The following system is used:

- A first degree burn causes redness and swelling in the outermost layers of the skin.
- A second degree burn involves redness, swelling, and blistering. The damage may extend to deeper layers of the skin.
- A third degree burn destroys the entire depth of the skin. It can also damage fat, muscle, organs, or bone beneath the skin. Significant scarring is common, and death can occur in the most severe cases.

The severity of a burn is also judged by how much area it covers. Health workers express this factor in a unit known as body surface area (BSA). For example, a person with burns on one arm and hand is said to have about a 10 percent BSA burn. A burn covering one leg and foot is classified as about a 20 percent BSA burn.

CAUSES

Burns may be caused in a variety of ways. In every case, the burn results from the death of skin tissue and, in some cases, underlying tissue. Burns caused by hot objects result from the death of cells caused by heat. In many cases, contact with a very hot object can damage tissue extensively. The contact may last for no more than a second or so, but the damage still occurs.

In other cases, cells are killed by heat produced by some physical event. For example, a rope burn is caused by friction between the rope and a person's body. The rope itself is not hot, but the heat produced by friction is sufficient to cause a burn.

Chemicals can also cause burns. The chemicals attack and destroy cells in skin tissue. They produce an effect very similar to that of a heat burn.

SYMPTOMS

The major signs of a burn are redness, swelling, and pain in the affected area. A severe burn will also blister. The skin may also peel, appear white or charred (blackened), or feel numb. A burn may also trigger a headache and fever. The most serious burns may cause shock. The symptoms of shock include faintness, weakness, rapid pulse and breathing, pale and clammy skin, and bluish lips and fingernails.

DIAGNOSIS

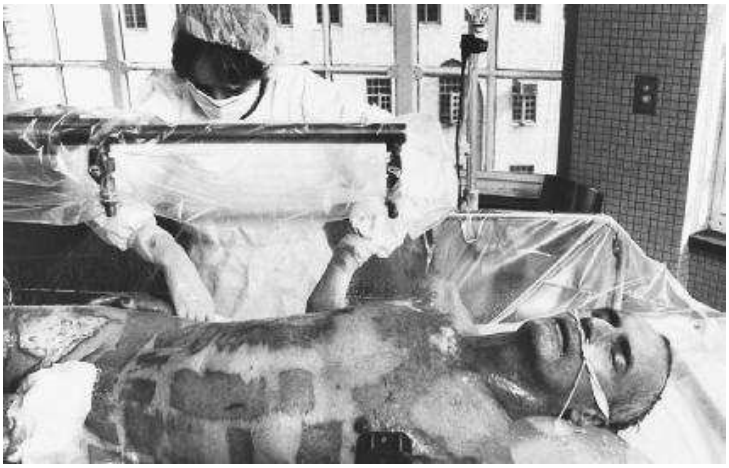
Most burn cases are easily diagnosed. Patients know that they have touched a hot object, spilled a chemical on themselves, or been hit by steam. Doctors can confirm that a burn has occurred by conducting a physical examination.

TREATMENT

The form of treatment used for a burn depends on how serious it is. Minor burns can usually be treated at home or in a doctor's office. A minor burn is defined as a first or second degree burn that covers less than 15 percent of an adult's body or 10 percent of a child's body.

Moderate burns should be treated in a hospital. Moderate burns are first or second degree burns that cover more of a patient's body or a third degree burn that covers less than 10 percent of BSA.

The most severe burns should be treated in special burn-treatment facilities. These burns are third degree burns that cover more than 10 percent of BSA. Specialized equipment and methods are used to treat these burns.



PROGNOSIS

The prognosis for burns depends on many factors. These factors include the degree of the burn, the amount of skin affected by the burn, what parts of the body were affected, and any additional complications that might have developed.

In general, minor burns heal in five to ten days with few or no complications or scarring. Moderate burns heal in ten to fourteen days and may leave scarring. Major burns take more than fourteen days to heal and can leave significant scarring or, in the most severe cases, can be fatal.

PREVENTION

Most thermal burns are caused by fires in the home. Every family member should be aware of basic safety rules that can reduce the risk of such fires. The single most important safety device is a smoke detector. The installation of smoke detectors throughout a house can greatly reduce the chance that injuries will result if a fire breaks out. Children should also be taught not to play with matches, lighters, fireworks, gasoline, cleaning fluids, or other materials that could burn them.

Burns from scalding water can be prevented by monitoring the temperature in the home hot water heater. That temperature should never be set higher than about 120°F (49°C). Taking care when working in the kitchen can also prevent scalds. For instance, be cautious when removing the tops from pans of hot foods and when uncovering foods heated in a microwave oven.

Sunburns can be prevented by limiting the time spent in the sun each day. The use of sunscreens can also reduce exposure to the ultraviolet radiation that causes sunburns.

Electrical burns can be prevented by covering unused electrical outlets with safety plugs. Electrical cords should also be kept out of the reach of infants who may chew on them. People should seek shelter indoors during thunderstorms in order to avoid being struck by lightning or coming in contact with fallen electrical wires.

Chemical burns may be prevented by wearing protective clothing, including gloves and eyeshields. Individuals should also be familiar with the chemicals they handle and know which ones are likely to pose a risk for burns.

http://www.faqs.org/health/Sick-V1/Burns-and-Scalds.html

FROSTBITE

DEFINITION

Frostbite is damage to the skin and other tissue caused by freezing. The term frostnip is sometimes used for a mild form of frostbite.

DESCRIPTION

Frostbite is caused by exposure to temperatures well below freezing (32°F or 0°C). Dry conditions contribute to frostbite damage. At temperatures closer to freezing, frostnip is more likely to occur. Humid air is also more likely to produce frostnip than frostbite.

CAUSES

The human body can withstand temperatures a little below freezing for hours before freezing. However, exposure to very cold temperatures can freeze skin in minutes or even seconds. Air temperature, wind speed, and moisture all affect the rate at which the body loses heat. For example, wet clothing increases the risk for frostbite. Water absorbs heat quickly and efficiently. It causes the body to cool off very quickly.

The permanent damage done to the body depends more on how long it was exposed to cold temperatures than on how cold it got. This fact explains why so many people are injured by frostbite. The overnight temperature may not drop very low, but homeless people are forced to remain outside for hours at a time. This long exposure to even mildly cold temperatures can cause frostbite.

Several factors increase a person's risk for frostbite. Alcohol use is a major risk factor for frostbite. Alcohol reduces blood circulation. It causes the body to cool off quickly. It also impairs ones judgement. A person who has been drinking may not notice how cold it is, or realize that he or she is getting frostbite, and stay outdoors even after injury has occured. In one study

of frostbite injuries, nearly half occurred among people who had been drinking. Other factors contributing to the risk for frostbite include:

- Psychiatric illness
- Inadequate clothing
- Fatigue
- Infection from a wound
- Atherosclerosis (see atherosclerosis entry)
- Diabetes (see diabetes mellitus entry)
- Previous injuries due to cold temperatures

SYMPTOMS

Most frostbite injuries affect the feet or hands. About 10 percent of all cases involve the ears, nose, cheeks, or penis. The first symptoms of frostbite are a feeling of cold and numbness in the affected body part. The skin then begins to turn white or yellowish. Many patients experience severe pain in the affected part.

Symptoms continue as the body begins to warm up. The pain returns or continues during this period. It may last for days or weeks. As the skin begins to thaw, fluids may collect, causing swelling of the affected area. In more serious cases, deep, blood-filled blisters may form. In the most severe cases of frostbite, the muscles, tendons, nerves, and bones may also be damaged by cold. In such cases, dead tissue may drop off or become infected.

The symptoms of frostnip are less severe. The skin may turn pale. Numbness and tingling are likely to occur in the affected area.

DIAGNOSIS

A first diagnosis of frostbite or frostnip can usually be made on the basis of environmental conditions. A person found unconscious in freezing weather may be presumed to be at risk for frostbite. Physical examination of the skin often confirms this diagnosis. The skin tends to be cold, hard, white, and numb if frostbite is present. As it warms, the skin becomes red, swollen, and painful. Doctors usually classify the extent of frostbite as being superficial or deep. The prognosis for all forms of frostbite is often not clear for many days.

TREATMENT

Frostbite is a potentially serious problem that requires emergency medical treatment. First aid involves replacing wet clothing with warm, dry clothing or blankets. A splint or padding can be used to protect the injured area. Observers should not attempt to warm the patient in the field. The re-warming procedure should take place under controlled conditions in the hospital.

The outcome of a frostbite injury cannot be predicted in the first few days. For that reason, the same treatment is used with all patients. Treatment involves re-warming of the affected area at a temperature of 104° to 108°F (40° to 42°C). The injury is treated with aloe vera and splinted, wrapped, and elevated.

Injections of tetanus vaccine and penicillin may be given. These injections protect the patient against infection. An anti-inflammatory drug, such as aspirin or ibuprofen, may also be given. In some cases, narcotics may be needed to treat the severe pain that occurs with deep frostbite.

In the most serious cases, frostbite may cause extensive tissue damage. Amputation (removal) of an arm, leg, hand, or foot may be necessary. A decision to take this action is usually delayed as long as possible to see if the damaged tissue will recover.

PROGNOSIS

A new approach to frostbite treatment was developed in the 1980s. The major emphasis in this method is to re-warm the body as quickly as possible. This method has proved to be very successful. In one study, about twothirds of patients with superficial frostbite recovered completely without tissue loss. The success rate using older methods was only about 35 percent (or about one-third of patients).

The most serious consequence of frostbite may be amputation. People who do not require amputation may still experience long-term symptoms. These symptoms include extreme throbbing pain, a burning sensation or tingling feelings, color changes of the skin, changes in the shape of nails or loss of nails, joint stiffness, excessive sweating, and a heightened sensitivity to cold.

HERPES INFECTIONS

DEFINITION

Herpes infections are a group of diseases caused by a herpes virus. There are eight different herpes viruses that can infect humans. Two of these, herpes simplex type 1 and herpes simplex type 2, occur commonly. They cause cold sores and genital herpes.

DESCRIPTION

Cold sores are a very common health problem. More than 60 percent of Americans have had a cold sore. Nearly 25 percent of these individuals have repeated outbreaks of cold sores. Cold sores are also known as fever blisters or oral herpes. They are usually caused by herpes simplex virus 1 (HSV1).

Most people are first infected with HSV1 before the age of ten. Once the virus enters the body, it remains there for life. Cold sores are painful blisters filled with fluid. They usually occur on the lips. By contrast, canker sores usually occur on the tongue, inside the cheeks, or elsewhere inside the mouth.

Genital herpes are also painful blisters filled with fluid. They are caused by a close relative of HSV1, herpes simplex virus 2 (HSV2). A common rule of thumb is that HSV1 causes infections above the waist and HSV2 causes infections below the waist. But that rule is not completely true. Either virus can cause infections above or below the waist. Still, the rule is a good general guideline as to where each virus is most likely to be active.

Viruses that enter the body often go through a latency period. A latency period is a stage during which the virus goes into hiding. It can be found in cells, but it is not active. There are no external symptoms that the virus is in the body.

At some point, however, the virus becomes active again. Any number of factors can cause reactivation of the virus. Physical or emotional shock is a common cause. When the virus becomes active again, symptoms of the infection reappear.

This pattern explains why cold sores and genital herpes commonly appear and then disappear. Each new appearance does not mean a new infection. It means that the virus has emerged from its latency period and become active again.

CAUSES

Both HSV1 and HSV2 are transmitted directly between people. Cold sores are spread, for example, when an uninfected person touches an infected person. A common means of transmission is by kissing. The greatest risk for spreading the virus occurs when blisters are present on the lips. But it can also be spread when there are no blisters.

Genital herpes is spread only through sexual contact. When an uninfected person comes into contact with the blisters on another person's body, the virus may be transmitted. Genital herpes is spread between genital areas in most cases, but it can also be spread to the mouth during oral sex.

SYMPTOMS

Not everyone who is infected with the herpes virus will develop symptoms. Among those who do, the symptoms first appear within two to twenty days of infection. Symptoms that develop after the original infection are generally severer than those that appear in later episodes of the disease.

The first stage of infection often involves a set of symptoms called a prodrome. The prodrome is a warning sign that an infection has begun to develop in the body. Some symptoms of a herpes prodrome include pain, burning, itching, or tingling at the site where the blisters will form. The prodrome lasts anywhere from a few hours to a few days.

Following the prodrome, the characteristic herpes blisters begin to appear. Cold sore blisters first appear in the form of small red bumps that quickly fill with fluid. The blisters are very painful. They may either burst and form a scab or dry up and form a scab. The skin heals without scarring within six to ten days.

DIAGNOSIS

Cold sores and genital herpes both have a very distinctive appearance. Simple observation of a patient's symptoms often provides a strong indication of the problem. However, the symptoms of the two diseases are somewhat similar to those of other infections. Cold sores, for example, look something like a bacterial infection known as impetigo. There may also be some confusion between cold sores in the mouth and canker sores.

To confirm a diagnosis, a doctor can do a culture of cells taken from the infected area by wiping a clean cotton swab over the infected area. The material collected on the swab is then kept in a warm, moist environment for a few days. The organisms responsible for the infection can be identified when examined under a microscope.

TREATMENT

There is no cure for herpes virus infections. However, there are antiviral drugs that can relieve some symptoms of these infections. Antiviral drugs interfere with the growth of viruses. They work best when used as early in an infection as possible. For the best results, treatment should begin during the prodrome stage of infection. Antiviral drugs may also prevent future outbreaks of cold sores or genital herpes.

Stress is thought to be one of the factors that bring on an attack of herpes. Some methods for relieving stress include acupressure, massage, meditation, yoga, tai chi, and hypnotherapy.

PROGNOSIS

There is no cure for any type of herpes infection. Most such infections are painful and sometimes embarrassing. However, they generally get better on their own without any permanent scarring or damage to the body. In many cases, infections become less frequent and severe as a person grows older.

PREVENTION

The only way to prevent a herpes infection is by avoiding contact with an infected person. While good advice, that policy may be difficult to follow. Many infected people do not know that they carry the virus. Or they may not be concerned because the virus is in a latent stage. In the case of genital herpes, some people may choose not to tell their sexual partners that they are infected.

http://www.faqs.org/health/Sick-V2/Herpes-Infections.html