

# **Volunteer Leader Training Guide**

## **Skin Deep: Care of Skin**

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### **Target Audience**

- EHC members
- Adult audiences

### **Objectives**

- Participants will be able to identify and manage common skin problems.
- Participants will learn ways to maintain healthy skin through healthy lifestyles.

### **Main Teaching Point**

- Importance of healthy lifestyles for healthy skin

### **Handouts**

- Handout 1 – Cleaning Your Face: Be Gentle
- Handout 2 – Bathing: Avoid Drying Out
- Handout 3 – Moisturizing: Hydrate Your Skin
- Handout 4 – Maintaining a Healthy Lifestyle to Protect Your Skin

### **Suggestions for Teaching**

- Obtain enough copies of handouts for each participant.
- Review the information in the lesson guide and on the handouts.

### **Introduction**

The major function of skin is to provide a barrier between you and the outside environment. Without this protective covering, your life on earth would be impossible. The outermost layer of the epidermis is made up of sheets of dead cells that serve as the major waterproof barrier to the environment. In addition, special cells called melanocytes inside the epidermis produce brown pigment which helps protect you from ultraviolet light.

The middle layer, the dermis, provides a tough, flexible foundation for the epidermis. In the dermis, sweat glands and blood vessels help to regulate body temperature and nerve endings send the sensations of pain, itching, touch and temperature to the brain. Oil glands produce a

substance called sebum, which helps to moisturize the skin. Hair is primarily decorative in humans. The fat under the dermis provides insulation and helps to store calories.

## **Aging Skin**

Americans spend billions of dollars each year on skin care products that promise to erase wrinkles, lighten age spots and eliminate itching, flaking or redness. But the simplest and cheapest way to keep your skin healthy and young-looking is to stay out of the sun.

Sunlight is a major cause of the skin changes we think of as aging – changes such as wrinkles, dryness and age spots. Your skin does change with age. For example, you sweat less, leading to increased dryness. As your skin ages, it becomes thinner and loses fat, so it looks less plump and smooth. Underlying structures – veins and bones in particular – become more prominent. Your skin can take longer to heal when injured. You can delay these changes by staying out of the sun. Although nothing can completely undo sun damage, the skin sometimes can repair itself. So, it's never too late to protect yourself from the harmful effects of the sun.

## **Wrinkles**

Over time, the sun's ultraviolet (UV) light damages the fibers in the skin called elastin. The breakdown of these fibers causes the skin to lose its ability to snap back after stretching. As a result, wrinkles form. Gravity also is at work, pulling at the skin and causing it to sag, most noticeably on the face, neck and upper arms.

Cigarette smoking also contributes to wrinkles. People who smoke tend to have more wrinkles than nonsmokers of the same age, complexion and history of sun exposure. The reason for this difference is not clear. It may be because smoking also plays a role in damaging elastin. Facial wrinkling increases with the amount of cigarettes and the number of years a person has smoked.

Many products currently on the market claim to “revitalize aging skin.” According to the American Academy of Dermatology, over-the-counter “wrinkle” creams and lotions may soothe dry skin, but they do little or nothing to reverse wrinkles. At this time, the only products that have been studied for safety and effectiveness and approved by the Food and Drug Administration (FDA) to treat signs of sun-damaged or aging skin are tretinoin cream and carbon dioxide (CO<sub>2</sub>) and erbium (Er:YAG) lasers.

Tretinoin cream (Renova), a vitamin A derivative available by prescription only, is approved for reducing the appearance of fine wrinkles, mottled darkened spots and roughness in people whose skin does not improve with regular skin care and use of sun protection. However, it doesn't eliminate wrinkles, repair sun-damaged skin or restore skin to its healthier, younger structure. It has not been studied in people 50 and older or in people with moderately or darkly pigmented skin.

The CO<sub>2</sub> and Er:YAG lasers are approved to treat wrinkles. The doctor uses the laser to remove skin one layer at a time. Laser therapy is performed under anesthesia in an outpatient surgical setting.

The FDA currently is studying the safety of alpha hydroxy acids (AHAs), which are widely promoted to reduce wrinkles, spots and other signs of aging, sun-damaged skin. Some studies suggest that they may work, but there is concern about adverse reactions and long-term effects of their use. Because people who use AHA products have greater sensitivity to the sun, the FDA

advises consumers to protect themselves from sun exposure by using sunscreen, wearing a hat or avoiding midday sun. If you are interested in treatment for wrinkles, you should discuss treatment options with a dermatologist.

## **Dry Skin and Itching**

Many older people suffer from dry skin, particularly on their lower legs, elbows and forearms. The skin feels rough and scaly and often is accompanied by a distressing, intense itchiness. Low humidity, caused by overheating during the winter and air conditioning during the summer, contributes to dryness and itching. The loss of sweat and oil glands as you age also may worsen dry skin. Anything that further dries your skin – overuse of soaps, antiperspirants, perfumes or hot baths – will make the problem worse. Dehydration, sun exposure, smoking and stress also may cause dry skin.

Dry skin itches because it is irritated easily. If your skin is very dry and itchy, see a doctor. Dry skin and itching can affect your sleep, cause irritability or be a symptom of a disease. For example, diabetes and kidney disease can cause itching. Some medicines make the itchiness worse.

The most common treatment for dry skin is the use of moisturizers to reduce water loss and soothe the skin. Moisturizers come in several forms – ointments, creams and lotions. Ointments are mixtures of water in oil, usually either lanolin or petrolatum. Creams are preparations of oil in water, which is the main ingredient. Creams must be applied more often than ointments to be most effective. Lotions contain powder crystals dissolved in water, again the main ingredient. Because of their high water content, they feel cool on the skin and do not leave the skin feeling greasy. Although they are easy to apply and may be more pleasing than ointments and creams, lotions don't have the same protective qualities. You may need to apply them frequently to relieve the signs and symptoms of dryness. Moisturizers should be used indefinitely to prevent recurrence of dry skin.

A humidifier can add moisture to the air. Bathing less often and using milder soaps also can help relieve dry skin. Warm water is less irritating to dry skin than hot water.

## **Skin Cancer**

Skin cancer is the most common type of cancer in the United States. According to current estimates, 40 to 50 percent of Americans who live to age 65 will have skin cancer at least once. Although anyone can get skin cancer, the risk is greatest for people who have fair skin that freckles easily.

UV radiation from the sun is the main cause of skin cancer. In addition, artificial sources of UV radiation, such as sunlamps and tanning booths, can cause skin cancer. People who live in areas of the U.S. that get high levels of UV radiation from the sun are more likely to get skin cancer. For example, skin cancer is more common in Texas and Florida than in Minnesota, where the sun is not as strong.

There are three common types of skin cancers. Basal cell carcinomas are the most common, accounting for more than 90 percent of all skin cancers in the United States. They are slow-growing cancers that seldom spread to other parts of the body. Squamous cell carcinomas also rarely spread, but they do so more often than basal cell carcinomas. The most dangerous of all cancers that occur in the skin is melanoma. Melanoma can spread to other organs. When it does, it often is fatal.

Both basal and squamous cell cancers are found mainly on areas of the skin exposed to the sun – the head, face, neck, hands and arms. However, skin cancer can occur anywhere. Changes in the skin are not sure signs of cancer; however, it's important to see a doctor if any symptom lasts longer than two weeks. Don't wait for the area to hurt; skin cancers seldom cause pain.

All skin cancers could be cured if they were discovered and brought to a doctor's attention before they have a chance to spread. Therefore, you should check your skin regularly. The most common warning sign of skin cancer is a change on the skin, especially a new growth or a sore that doesn't heal. Skin cancers don't all look the same. For example, skin cancer can start as a small, smooth, shiny, pale or waxy lump or it can appear as a firm red lump. Sometimes, the lump bleeds or develops a crust. Skin cancer also can start as a flat, red spot that is rough, dry or scaly.

In treating skin cancer, the doctor's main goal is to remove or destroy cancer completely, leaving as small a scar as possible. To plan the best treatment for each person, the doctor considers the type of skin cancer, its location and size and the person's general health and medical history. Treatment for skin cancer usually involves some type of surgery. In some cases, radiation therapy or chemotherapy (anticancer drugs) or a combination of these treatments may be necessary.

## **Age Spots**

Age spots, or "liver spots" as they're often called, have nothing to do with the liver. Rather, these flat, brown spots are caused by years of sun exposure. They are bigger than freckles and appear in fair-skinned people on sun-exposed areas such as the face, hands, arms, back and feet. The medical name for them is solar lentigo. They may be accompanied by wrinkling, dryness, thinning of the skin and rough spots.

A number of treatments are available, including skin-lightening or "fade" creams, cryotherapy (freezing) and laser therapy. Tretinoin cream is approved for reducing the appearance of darkened spots. A sunscreen or sun block should be used to prevent further damage.

## **Shingles**

Shingles is an outbreak of a rash or blisters on the skin that may cause severe pain. Shingles is caused by the varicella-zoster virus, the same virus that causes chickenpox. After an attack of chickenpox, the virus lies silent in the nerve tissue. Years later, the virus can reappear in the form of shingles. Although it is most common in people over age 50, anyone who has had chickenpox can develop shingles. It also is common in people with weakened immune systems due to HIV infection, chemotherapy or radiation treatment, transplant operations and stress.

Early signs of shingles include burning or shooting pain and tingling or itching, generally on one side of the body or face. A rash appears as a band or patch of raised dots on the side of the trunk or face. The rash develops into small, fluid-filled blisters, which begin to dry out and crust over within several days. When the rash is at its peak, symptoms can range from mild itching to intense pain. Most people with shingles have only one bout with the disease in their lifetime. However, those with impaired immune systems – for example, people with AIDS or cancer – may suffer repeated episodes.

If you suspect you have shingles, see a doctor right away. The severity and duration of an attack of shingles can be reduced significantly by immediate treatment with antiviral drugs. These drugs may also help prevent the painful aftereffects of shingles known as postherpetic neuralgia.

## **Bruising**

Many older people notice an increased number of bruises, especially on their arms and legs. The skin becomes thinner with age and sun damage. Loss of fat and connective tissue weakens the support around blood vessels, making them more susceptible to injury. The skin bruises and tears more easily and takes longer to heal.

Sometimes bruising is caused by medications or illness. If bruising occurs in areas always covered by clothing, see a doctor.

## **Acne**

Acne is a disorder resulting from the action of hormones on the skin's oil glands (sebaceous glands), which leads to plugged pores and outbreaks of lesions commonly called pimples or zits. Acne lesions usually occur on the face, neck, back, chest and shoulders. Nearly 17 million people in the United States have acne, making it the most common skin disease. Although acne is not a serious health threat, severe acne can lead to disfiguring, permanent scarring, which can be upsetting to people who are affected by the disorder.

The exact cause of acne is unknown, but doctors believe it results from several related factors. One important factor is an increase in hormones called androgens (male sex hormones). These increase in both boys and girls during puberty and cause the sebaceous glands to enlarge and make more sebum. Hormonal changes related to pregnancy or starting or stopping birth control pills can also cause acne. Another factor is heredity or genetics. Certain drugs, including androgens and lithium, are known to cause acne. Greasy cosmetics may alter the cells of the follicles and make them stick together, producing a plug.

Factors that can cause an acne flare include:

- Changing hormone levels in adolescent girls and adult women two to seven days before their menstrual period starts.
- Friction caused by leaning on or rubbing the skin.
- Pressure from bike helmets, backpacks or tight collars.
- Environmental irritants, such as pollution and high humidity.
- Squeezing or picking at blemishes.
- Hard scrubbing of the skin.

## **Myths About the Causes of Acne**

There are many myths about what causes acne. Chocolate and greasy foods are often blamed, but foods seem to have little effect on the development and course of acne in most people. Another common myth is that dirty skin causes acne; however, blackheads and other acne lesions are not caused by dirt. Finally, stress does not cause acne.

## **Who Gets Acne?**

People of all races and ages get acne. It is most common in adolescents and young adults. Nearly 85 percent of people between the ages of 12 and 24 develop the disorder. For most people, acne tends to go away by the time they reach their thirties; however, some people in their forties and fifties continue to have this skin problem.

## **Atopic Dermatitis**

Atopic dermatitis is a chronic (long-lasting) disease that affects the skin. It is not contagious; it cannot be passed from one person to another. The word “dermatitis” means inflammation of the skin. “Atopic” refers to a group of diseases where there is often an inherited tendency to develop other allergic conditions, such as asthma and hay fever. In atopic dermatitis, the skin becomes extremely itchy. Scratching leads to redness, swelling, cracking, “weeping” clear fluid and finally, crusting and scaling. In most cases, there are periods of time when the disease is worse (called exacerbations or flares) followed by periods when the skin improves or clears up entirely (called remissions). As some children with atopic dermatitis grow older, their skin disease improves or disappears altogether, although their skin often remains dry and easily irritated. In others, atopic dermatitis continues to be a significant problem in adulthood.

Atopic dermatitis is often referred to as “eczema,” which is a general term for the several types of inflammation of the skin. Atopic dermatitis is the most common of the many types of eczema. Several have very similar symptoms.

Although it is difficult to identify exactly how many people are affected by atopic dermatitis, an estimated 20 percent of infants and young children experience symptoms of the disease. Roughly 60 percent of these infants continue to have one or more symptoms of atopic dermatitis in adulthood. This means that more than 15 million people in the United States have symptoms of the disease

## **Rosacea**

Rosacea is a chronic (long-term) disease that affects the skin and sometimes the eyes. The disorder is characterized by redness, pimples and, in advanced stages, thickened skin. Rosacea usually affects the face; other parts of the upper body are only rarely involved.

Approximately 14 million people in the United States have rosacea. It most often affects adults between the ages of 30 and 60. Rosacea is more common in women (particularly during menopause) than men. Although rosacea can develop in people of any skin color, it tends to occur most frequently and is most apparent in people with fair skin.

There are several symptoms and conditions associated with rosacea. These include frequent flushing, vascular rosacea, inflammatory rosacea and several other conditions involving the skin, eyes and nose.

Frequent flushing of the center of the face – which may include the forehead, nose, cheeks, and chin – occurs in the earliest stage of rosacea. The flushing often is accompanied by a burning sensation, particularly when creams or cosmetics are applied to the face. Sometimes the face is slightly swollen.

In addition to skin problems, up to 50 percent of people who have rosacea have eye problems caused by the condition. Typical symptoms include redness, dryness, itching, burning, tearing and the sensation of having sand in the eye. The eyelids may become inflamed and swollen. Some people say their eyes are sensitive to light and their vision is blurred or otherwise impaired.

Doctors do not know the exact cause of rosacea but believe that some people may inherit a tendency to develop the disorder. People who blush frequently may be more likely to develop rosacea. Factors that cause rosacea to flare up in one person may have no effect on another

person. Although the following factors have not been well-researched, some people claim that one or more of them have aggravated their rosacea: heat (including hot baths), strenuous exercise, sunlight, wind, very cold temperatures, hot or spicy foods and drinks, alcohol consumption, menopause, emotional stress and long-term use of topical steroids on the face.

Although there is no cure for rosacea, it can be treated and controlled. A dermatologist (a medical doctor who specializes in diseases of the skin) usually treats rosacea. The goals of treatment are to control the condition and improve the appearance of the patient's skin. It may take several weeks or months of treatment before a person notices an improvement of the skin.

## **Psoriasis**

Psoriasis is a chronic (long-lasting) skin disease of scaling and inflammation that affects 2 to 2.6 percent of the United States population, or between 5.8 and 7.5 million people. Although the disease occurs in all age groups, it primarily affects adults. It appears about equally in males and females. Psoriasis occurs when skin cells quickly rise from their origin below the surface of the skin and pile up on the surface before they have a chance to mature. Usually this movement (also called turnover) takes about a month, but in psoriasis it may occur in only a few days. In its typical form, psoriasis results in patches of thick, red (inflamed) skin covered with silvery scales. These patches, which are sometimes referred to as plaques, usually itch or feel sore. They most often occur on the elbows, knees, other parts of the legs, scalp, lower back, face, palms and soles of the feet. They can occur on skin anywhere on the body.

The disease may also affect the fingernails, the toenails, and the soft tissues of the genitals and inside the mouth. While it is not unusual for the skin around affected joints to crack, approximately 1 million people with psoriasis experience joint inflammation that produces symptoms of arthritis. This condition is called psoriatic arthritis.

Individuals with psoriasis may experience significant physical discomfort and some disability. Itching and pain can interfere with basic functions, such as self-care, walking and sleep. Plaques on hands and feet can prevent individuals from working at certain occupations, playing some sports and caring for family members or a home. The frequency of medical care is costly and can interfere with an employment or school schedule. People with moderate to severe psoriasis may feel self-conscious about their appearance and have a poor self-image that stems from fear of public rejection and psychosexual concerns. Psychological distress can lead to significant depression and social isolation.

Psoriasis is a skin disorder driven by the immune system, especially involving a type of white blood cell called a T cell. Normally, T cells help protect the body against infection and disease. In the case of psoriasis, T cells are put into action by mistake and become so active that they trigger other immune responses, which lead to inflammation and to rapid turnover of skin cells. In about one-third of the cases, there is a family history of psoriasis. People with psoriasis may notice that there are times when their skin worsens, then improves. Conditions that may cause flareups include infections, stress and changes in climate that dry the skin. Also, certain medicines, including lithium and beta blockers, which are prescribed for high blood pressure, may trigger an outbreak or worsen the disease.

Doctors generally treat psoriasis in steps based on the severity of the disease, size of the areas involved, type of psoriasis and the patient's response to initial treatments. This is sometimes called the "1-2-3" approach. In step 1, medicines are applied to the skin (topical treatment). Step 2 uses light treatments (phototherapy). Step 3 involves taking medicines by mouth or injection that treat the whole immune system (called systemic therapy).

Over time, affected skin can become resistant to treatment, especially when topical corticosteroids are used. Also, a treatment that works very well in one person may have little effect in another. Thus, doctors often use a trial-and-error approach to find a treatment that works, and they may switch treatments periodically (for example, every 12 to 24 months) if a treatment does not work or if adverse reactions occur.

## **Scleroderma**

Derived from the Greek words “sklerosis” meaning hardness and “derma” meaning skin, scleroderma literally means hard skin. Though it is often referred to as if it were a single disease, scleroderma is really a symptom of a group of diseases that involve the abnormal growth of connective tissue, which supports the skin and internal organs. It is sometimes used, therefore, as an umbrella term for these disorders. In some forms of scleroderma, hard, tight skin is the extent of this abnormal process. In other forms, however, the problem goes much deeper, affecting blood vessels and internal organs, such as the heart, lungs and kidneys.

Scleroderma is called both a rheumatic (roo-MA-tik) disease and a connective tissue disease. The term rheumatic disease refers to a group of conditions characterized by inflammation and/or pain in the muscles, joints or fibrous tissue. A connective tissue disease is one that affects the major substances in the skin, tendons and bones.

Although scientists don’t know exactly what causes scleroderma, they are certain that people cannot catch it from or transmit it to others. Studies of twins suggest it is also not inherited. Scientists suspect that scleroderma comes from several factors that may include:

- **Abnormal immune or inflammatory activity:** Like many other rheumatic disorders, scleroderma is believed to be an autoimmune disease. An autoimmune disease is one in which the immune system, for unknown reasons, turns against one’s own body.

In scleroderma, the immune system is thought to stimulate cells called fibroblasts to produce too much collagen. In scleroderma, collagen forms thick connective tissue that builds up around the cells of the skin and internal organs. In milder forms, the effects of this buildup are limited to the skin and blood vessels. In more serious forms, it also can interfere with normal functioning of skin, blood vessels, joints and internal organs.

- **Genetic makeup:** While genes seem to put certain people at risk for scleroderma and play a role in its course, the disease is not passed from parent to child like some genetic diseases.

However, some research suggests that having children may increase a woman’s risk of scleroderma. Scientists have learned that when a woman is pregnant, cells from her baby can pass through the placenta, enter her bloodstream and linger in her body, in some cases, for many years after the child’s birth. Recently, scientists have found fetal cells from pregnancies of years past in the skin lesions of some women with scleroderma. They think that these cells, which are different from the woman’s own cells, may either begin an immune reaction to the woman’s own tissues or trigger a response by the woman’s immune system to rid her body of those cells. Either way, the woman’s healthy tissues may be damaged in the process. Further studies are needed to find out if fetal cells play a role in the disease.

- **Environmental triggers:** Research suggests that exposure to some environmental factors may trigger the disease in people who are genetically predisposed to it. Suspected triggers include viral infections, certain adhesive and coating materials and organic solvents such as vinyl chloride or trichloroethylene. In the past, some people believed that silicone breast implants might have been a factor in developing connective tissue diseases such as scleroderma.
- **Hormones:** By the middle to late childbearing years (ages 30 to 55), women develop scleroderma at a rate 7 to 12 times higher than men. Because of female predominance at this and all ages, scientists suspect that something distinctly feminine, such as the hormone estrogen, plays a role in the disease. So far, the role of estrogen or other female hormones has not been proven.

Although scleroderma is more common in women, the disease also occurs in men and children. It affects people of all races and ethnic groups.

### **Seborrheic Dermatitis (“Dandruff”)**

Seborrheic dermatitis is a disease that causes flaking of the skin. It usually affects the scalp. In adolescents and adults, it is commonly called “dandruff.” In babies, it is known as “cradle cap.”

Seborrheic dermatitis can also affect the skin on other parts of the body, such as the face and chest, and the creases of the arms, legs and groin. Seborrheic dermatitis usually causes the skin to look a little greasy and scaly or flaky.

Seborrheic dermatitis most often occurs in babies younger than 3 months of age and in adults from 30 to 60 years of age. In adults, it’s more common in men than in women.

The exact cause isn’t known. The cause may be different in infants and adults. Seborrheic dermatitis may be related to hormones, because the disorder often appears in infancy and disappears before puberty. Or the cause might be a fungus, called malassezia. This organism is normally present on the skin in small numbers, but its number sometimes increase, resulting in skin problems.

Seborrheic dermatitis has also been linked to neurologic disorders such as Parkinson’s disease and epilepsy. The reason for this relationship isn’t known.

The treatment of seborrheic dermatitis depends on its location on the body. Treatment also depends on the person’s age.

### **Seborrheic Dermatitis of the Scalp (Dandruff) in Adults and Adolescents**

Dandruff is usually treated with a shampoo that contains salicylic acid (some brand names: X-Seb, Scalpicin), the prescription medicine selenium sulfide (brand names: Selsun, Exsel) or pyrithione zinc (some brand names: DHS Zinc, Head & Shoulders). These shampoos can be used two times a week. Shampoos with coal tar (some brand names: DHS Tar, Neutrogena T/Gel, Polytar) may be used three times a week. If you have dandruff, you might start by using one of these shampoos daily until your dandruff is controlled, and then use it two or three times a week.

When you use a dandruff shampoo, rub the shampoo into your hair thoroughly and let it stay on your hair and scalp for at least 5 minutes before rinsing. This will give it time to work. If the shampoo alone doesn't help, your doctor might want you to use a prescription steroid lotion once or twice daily, in addition to the shampoo.

Red, bumpy, scaly, itchy, swollen skin – any of these symptoms can signify an allergic skin condition. These skin problems are often caused by an immune system reaction, signifying an allergy. Allergic skin conditions can take several forms and are due to various causes.

## **Hives and Angioedema**

Hives or urticaria are red, itchy, swollen areas of the skin that can range in size and appear anywhere on the body. Approximately 25 percent of the U.S. population will experience an episode of hives at least once in their lives. Most common are acute cases of hives, where the cause is identifiable – often a viral infection, drug, food or latex. These hives usually go away spontaneously. Some people have chronic hives that occur almost daily for months to years. For these individuals, various circumstances or events, such as scratching, pressure or “nerves,” may aggravate their hives. However, eliminating these triggers has little effect on this condition.

Angioedema, a swelling of the deeper layers of the skin, sometimes occurs with hives. It is not red or itchy, and it most often occurs in soft tissue such as the eyelids, mouth or genitals. Hives and angioedema it may appear together or separately on the body. Hives are the result of a chemical called histamine – responsible for many of the symptoms of allergic reactions – in the upper layers of the skin. Angioedema results from the actions of these chemicals in the deeper layers of the skin. These chemicals are usually stored in our body's mast cells, which are cells heavily involved in allergic reactions. There are several identifiable triggers that release histamine and other chemicals from the mast cells, causing hives.

In adults, reactions to medicines are a common cause of acute hives. Medications known to cause hives or angioedema include aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, high blood pressure medicines known as ACE-inhibitors or pain-killers containing codeine or codeine-like drugs. Like all drug-induced hives, these reactions occur within minutes to an hour of taking the drug. Adults can also develop hives after eating certain foods, including nuts, eggs, shellfish, soy, wheat or milk – the culprits in more than 90 percent of proven food-induced hives. In children, foods or viral infections such as a cold can trigger acute hives. Physical urticaria is hives resulting from an outside source: rubbing of the skin, cold, heat, physical exertion or exercise, pressure or direct exposure to sunlight. Patients with chronic urticaria often report that at least one of these triggers induces their hives.

Whenever there is an identifiable trigger of hives, it should be eliminated. In patients with acute hives, some drugs or foods may take days to be eliminated from the body. For these individuals, an allergist may prescribe antihistamines to relieve symptoms until the culprit is eliminated. For patients with chronic hives, treatment cannot control the eruptions; these hives will eventually disappear on their own, with or without treatment. For 50 percent of these patients, the hives will clear in three to twelve months; 40 percent will clear in one to five years. Up to 1.5 percent of these patients may experience these hives for more than 20 years. Forty percent of patients with chronic hives will have at least one more episode of chronic hives in their lifetime. For these patients, the treatment objective is to provide comfort. If you experience chronic hives, your allergist will prescribe antihistamines and will combine medications and adjust your dosages as needed for your individual symptoms. In rare cases, if antihistamines do not provide appropriate comfort, the allergist will prescribe an oral corticosteroid.

## Contact Dermatitis

When some substances come into contact with skin, they may cause a rash called contact dermatitis. Some of these reactions are the result of an allergic reaction that involves the immune system, but many are the result of a non-allergic, or irritant, reaction. Often, it is difficult to tell the difference between these two types of reactions. The hallmark of allergic contact dermatitis is that it occurs almost exclusively where the offending agent, such as a plant or chemical, comes in contact with the skin. Irritant contact dermatitis is often more painful than itchy and is the result of an offending agent that actually damages the skin with which it comes into contact. The longer the skin is in contact – or the more concentrated the agent – the more severe the reaction. Water with added soaps and detergents is the most common cause. Thus, it is not surprising that these reactions appear most often on the hands and are frequently work-related. Individuals with other skin diseases, especially eczema (ex-zeh-ma), are most susceptible.

Allergic contact dermatitis is best exemplified by the itchy, red, blistered reaction that almost everyone experiences after touching a plant in the “rhus” family – poison ivy, poison oak or poison sumac. This allergic reaction is caused by a chemical in the plant called urushiol. You can have a reaction from touching other items with which the plant has come into contact, including yard tools or the family dog. However, once your skin has been washed, you cannot get another reaction from touching the rash or blisters. Unlike irritant contact dermatitis, which occurs within minutes of coming into contact with an offending agent, allergic contact dermatitis reactions can occur 24 to 48 hours after contact. Once a reaction starts, it takes 14 to 28 days to resolve, even with treatment.

Other agents that frequently cause allergic contact dermatitis include nickel, perfumes and fragrances, dyes, rubber (latex) products and cosmetics. Some ingredients in medications applied to the skin also can cause an allergic reaction, most commonly neomycin, an ingredient in antibiotic creams. To avoid reactions, any cream that ends in “caine” should never be applied to damaged skin.

Treatment of irritant contact dermatitis requires that the skin be kept from contact with the agent causing the reaction, and that every precaution is taken to avoid spilling caustic chemicals on the skin. Gloves can sometimes be helpful. Since these reactions are non-allergic in nature, treatment is directed toward relieving symptoms and preventing any permanent damage to the affected skin.

Treatment for allergic contact dermatitis depends on the severity of the symptoms. Cold soaks and compresses can offer relief for the acute, early, itchy blistered stage of the rash. When the rash is limited to small areas of the skin, topical corticosteroid creams may be prescribed to offer relief. When large areas of the body are involved, oral corticosteroids may be prescribed.