



Healthy Skin Matters

What you know about your skin

Your skin is the organ that comes into contact with the rest of the world. It holds body fluids in, preventing dehydration (dee-hahy-DREY-shun), and keeps harmful microbes (MYE-krobs) out—without it, we would get infections. Your skin is full of nerve endings that help you feel things like heat, cold, and pain. If you couldn't feel these things, you could get badly hurt and not even know it!

Skin is actually your body's largest organ.

What you might not know about your skin

Skin is actually your body's largest organ by size. Your skin helps keep your body temperature even. If you get too hot, blood vessels near the surface of the skin, called capillaries (CAP-uh-ler-ees), enlarge to let the

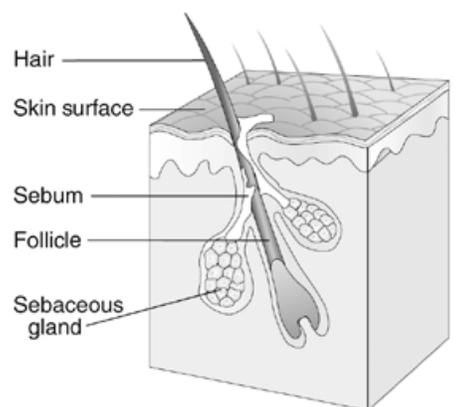
warm blood cool down. Your skin will also produce sweat from sweat glands when you get too warm. The sweat evaporates, cooling the skin. If you get too cold, the skin makes the capillaries very narrow, so not too much heat escapes from your skin.

Your skin also makes vitamin D (VYE-tuh-min D) when the sun shines on it. Vitamin D is important for the health of your bones and other parts of your body.

Why is healthy skin important?

Since your skin plays such an important role in protecting your body, you should

Normal Skin



keep it as healthy as you can. This will help you keep from getting sick or having damage to your bones, muscles, and internal organs.

What can go wrong?

You can injure your skin

It's not too hard to injure your skin. So be careful when you're doing anything that might injure it (like using sharp tools, working in the yard, or playing a sport). Cuts, bumps, and scrapes are a normal part of life. It wouldn't be much fun if you tried to avoid them completely. But it's smart to wear the right protective equipment, like gloves, long sleeves, knee and elbow pads, or helmets.

Be very careful when you're around anything hot that can burn your skin. Burns, including sunburn, can be



very painful and can take a long time to heal. Burns can also get infected easily. Sometimes, burns leave bad scars and permanently damage your skin. If you're helping out in the

kitchen, make sure you use hot pads or wear oven mitts to protect your hands when you're grabbing something hot.

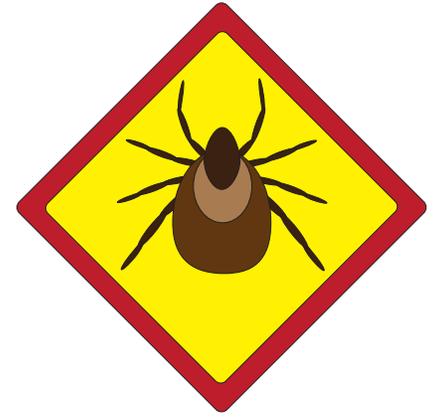
What to do when your skin is injured

If you do get a cut or scratch, clean it right away with soap and warm water and put on a bandage to protect it while it heals. This keeps dirt and germs from getting into the wound and causing an infection. If you come into contact with a plant like poison ivy, wash your skin and clothing right away. If you develop a rash, ask your pharmacist about over-the-counter medicines. For severe rashes, you might need to see your doctor.

What to do about insect bites

Watch out for insect bites, too. Try not to scratch them, because they could get infected. Cover up your skin as

much as possible when you will be in the woods, tall grass, or other areas where there may be ticks (small, 8-legged bugs). It helps to wear light-colored clothing, so you can see ticks before they have a chance to bite. Ticks



can carry germs that will make you sick. If you find a tick attached to your skin, get a trusted adult to help you remove it.

Acne

Most teenagers get a skin disease called acne (AK-nee). The blackheads and pimples can be embarrassing and make you feel bad about your appearance, but keep in mind that almost everyone gets them at some point. Acne isn't usually serious, but severe cases can cause scars that will last for years.

Acne is caused by bacteria (*Propionibacterium acnes*, often shortened to *P. acnes* and pronounced P. AK-nees), which live on everyone's skin. Sometimes the follicles (FALL-lick-els) in the skin, where hair grows, become clogged with oil and dead skin cells, and the bacteria thrive. Then that spot on the skin may hurt, become swollen, red, and hot. Eventually the walls of the follicle break down and spill the oil, skin cells and bacteria into the nearby skin, and a pimple forms.

There are many false ideas about what causes acne. Chocolate and greasy foods are often blamed, but foods probably don't have much effect on acne in most people. Another common myth is that dirty skin causes acne. But blackheads and other acne lesions are not caused by dirt.

There are many false ideas about what causes acne.

Stress doesn't cause acne either, but for people who have acne, stress might make it worse.

If acne really bothers you, ask your parents about going to see a doctor. If your acne is not very bad, your family doctor may be able to give you medicines that will help to improve it. Or you might want to see a doctor who treats just the skin. These doctors are known as dermatologists (dur-muh-TOL-uh-jists). Dermatologists have a number of good treatments for acne.

How do I keep my skin healthy?

Keep it clean

Washing your skin, especially your hands, is very important for keeping it healthy. Hand washing keeps you from spreading germs to other parts of your body. It also keeps you from spreading germs that could give others a cold or the flu. To help keep your skin from getting dry,

use water that's comfortably warm, not too hot, when you take a bath or shower. If your skin is dry or itchy, try a moisturizing cream or lotion.



Enjoy being in the sun—but protect your skin

Your skin produces vitamin D when it is exposed to sunshine. Vitamin D helps keep your bones and other body systems healthy. However, too much sun can damage your skin and increase your risk for skin cancer. It may make your skin look old years too soon and can make it less able to fight off infections. Whenever you're outside, use a sunscreen with a sun protection factor (SPF) of 30 or 45. Apply it evenly, and have a friend or parent help you with the hard-to-reach spots. Follow the directions that tell you how often to reapply it—one application won't last all day!

What about tanning beds?

Tanning beds don't offer a safe alternative to natural sunlight. Exposure to ultraviolet (UV) (uhl-truh-VYE-uh-lit) radiation damages your skin, whether the exposure comes from tanning beds or natural sunlight. This damage increases the risk of skin cancer and premature skin aging just like too much sun. In fact, most tanning beds emit mainly UVA rays, which may increase the risk of melanoma, the deadliest form of skin cancer.

Physical activity

Being physically active is good for your skin!

It increases the flow of blood to the surface of your skin and brings oxygen and nutrients to your whole body. Sweating helps to flush out impurities from your skin. Get 1 hour or more of physical activity every day. This will

be good for your skin as well as your heart, lungs, muscles, and other parts of your body. Be sure to drink enough water to replace the fluids you lose when you sweat. If you have any concerns about your health, talk to your doctor or a physical therapist to find out what kinds of activities are right for you.





Get some sleep

Getting enough sleep helps improve your overall health, which is good for your skin. Teens need at least 9 hours of sleep each night, while adults need about 7 to 9 hours.

See your doctor

If you find anything unusual on your skin, like a mole that changes size or color or a patch that looks red or itches, ask a parent or other trusted adult to take a look at it and arrange for you to see a doctor. For skin diseases, it's important to see a doctor as early as possible to prevent permanent damage to your skin.

Start now

Healthy skin will help you look your best and feel good about how you look. Start healthy habits now while you are young—they will help you keep your skin healthy for the rest of your life.

A healthy diet

You really don't need a special diet to keep your skin in good health. Eating a balanced diet will help you maintain a healthy weight and provide a variety of nutrients for your skin and your overall health. A balanced diet:

- Emphasizes fruits, vegetables, whole grains, and fat-free or low-fat dairy products like milk, cheese, and yogurt.
- Includes protein from lean meats, poultry, seafood, beans, eggs, and nuts.
- Is low in solid fats, saturated fats, cholesterol, salt (sodium), added sugars, and refined grains.
- Is as low as possible in *trans* fats.
- Balances calories taken in through food with calories burned in physical activity to help maintain a healthy weight.

For more information on a healthy diet, see www.choosemyplate.gov/food-groups.



Definitions

Acne (AK-nee). Acne is a disorder caused by the action of hormones and other substances on the skin's oil glands (sebaceous glands) and hair follicles. This can lead to plugged pores and outbreaks of lesions commonly called pimples or zits. Acne lesions usually occur on the face, neck, back, chest, and shoulders.

Capillaries (CAP-uh-ler-ees). The smallest blood vessels in your body. They branch through body tissues to deliver oxygen and nutrients and carry away waste products. Your body exchanges nutrients and fluids through the walls of these tiny blood vessels.

Dehydration (dee-hahy-DREY-shun). A condition that occurs when you lose more fluids than you take in. Your body is about two-thirds water. When you get dehydrated, it means the amount of water in your body has dropped below the level needed for normal body function.

Dermatologist (dur-muh-TOL-uh-jist). A doctor who specializes in the treatment of diseases of the skin.

Follicle (FALL-lick-el). The opening in the skin where the hair grows out. This opening also allows oil and dead skin cells to rise from under the skin to reach the surface where they can be washed away.

Microbes (MYE-krobs). Tiny organisms that are too small to see without a microscope, yet they are abundant on Earth. These microscopic organisms are found in plants and animals as well as in the human body. Some microbes cause disease in humans, plants, and animals, while others are essential for a healthy life.

***Propionibacterium acnes* (*P. acnes*)** (P. AK-nees). A bacterium (germ) that lives on the surface of the skin and can cause acne when the follicles become clogged with oil and dead skin cells.

Ultraviolet (UV) rays (uhl-truh-VYE-uh-lit reys). Sunlight consists of two types of harmful rays: ultraviolet A (UVA) rays and ultraviolet B (UVB) rays.

- UVA rays (which pass through window glass) penetrate deeper into the dermis, the thickest layer of the skin. UVA rays can suppress your immune system, which interferes with the immune system's ability to protect you against the development and spread of skin cancer. UVA exposure also is known to lead to signs of premature aging of the skin such as wrinkling and age spots.
- UVB rays are the sun's burning rays (which are blocked by window glass) and are the primary cause of sunburn.

A good way to remember the difference is that UVA rays are the aging rays and UVB rays are the burning rays. Excessive exposure to both forms of UV rays can lead to the development of skin cancer.

Vitamin D (VYE-tuh-min D). The vitamin that helps your body use calcium. Your skin makes vitamin D when the sun shines on it, and it is often added to dairy products like milk and yogurt, fortified soy beverage, and some cereal and orange juice.

For more information:

For more information on skin, contact:

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Information Clearinghouse

National Institutes of Health

Toll free: 877-22-NIAMS (226-4267)

Email: NIAMSinfo@mail.nih.gov

Website: www.niams.nih.gov

Check out these websites:

For information on skin, hair, and nails, visit:

- **MedlinePlus: Skin, Hair & Nails:**
www.nlm.nih.gov/medlineplus/skinhairandnails.html

For information about acne, visit:

- **Questions and Answers about Acne:**
www.niams.nih.gov/Health_Info/Acne/default.asp

For information about physical activity, visit:

- **Centers for Disease Control and Prevention: Physical Activity Guidelines:** www.cdc.gov/physicalactivity/everyone/guidelines/children.html
- **Healthfinder.gov: Physical Activity:**
www.healthfinder.gov/prevention/ViewTopic.aspx?topicID=22&areaID=5&TopicContentID=258
- **President's Council on Fitness, Sports, & Nutrition:** www.fitness.gov
- **Kids.gov: Health, Fitness, and Safety:**
www.kids.usa.gov

For information about a balanced diet, visit:

- **ChooseMyPlate.gov:** www.choosemyplate.gov/food-groups
- **Healthfinder.gov: Eat Healthy:**
www.healthfinder.gov/prevention/ViewTopic.aspx?topicID=21&areaID=5&TopicContentID=106

For information about how much sleep you need, visit:

- **Centers for Disease Control and Prevention: Sleep and Sleep Disorders:** www.cdc.gov/Features/Sleep

For facts about skin from the American Academy of Dermatology, visit:

- **Kids Skin Health:** www.kidsskinhealth.org/kids/index.html

This fact sheet was made for you by the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), a part of the U.S. Department of Health and Human Services' National Institutes of Health. For more information about the NIAMS, call the information clearinghouse at 301-495-4484 or toll free at 877-22-NIAMS (226-4267) or visit the NIAMS website at www.niams.nih.gov.



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