

Diabetes and Skin Complications

Diabetes can affect every part of the body, including the skin. As many as one third of people with diabetes will have a skin disorder caused or affected by diabetes at some time in their lives. In fact, such problems are sometimes the first sign that a person has diabetes. Luckily, most skin conditions can be prevented or easily treated if caught early.

Some of these problems are skin conditions anyone can have, but people with diabetes get them more easily. These include bacterial infections, fungal infections, and itching. Other skin problems happen mostly or only to people with diabetes. These include diabetic dermopathy, necrobiosis lipoidica diabetorum, diabetic blisters, and eruptive xanthomatosis.



Bacterial Infections

Several kinds of bacterial infections occur in people with diabetes. One common type is styes. These are infections of the glands of the eyelid. Another kind of infection is boils, or infections of the hair follicles. Carbuncles are deep infections of the skin and the tissue underneath. Infections can also occur around the nails.

Inflamed tissues are usually hot, swollen, red, and painful. Several different organisms can cause infections. The most common ones are the *Staphylococcus* bacteria, also called staph.

Once, bacterial infections were life threatening, especially for people with diabetes. Today, death is rare, thanks to antibiotics and better methods of blood sugar control.

But even today, people with diabetes have more bacterial infections than other people do. Doctors believe people with diabetes can reduce their chances of these infections in several ways (see “Good Skin Care” on page 15).

If you think you have a bacterial infection, see your doctor.

Fungal Infections

The culprit in fungal infections of people with diabetes is often *Candida albicans*. This yeast-like fungus can create itchy rashes of moist, red areas surrounded by tiny blisters and scales. These infections often occur in warm, moist folds of the skin. Problem areas are under the breasts, around the nails, between fingers and toes, in the corners of the mouth, under the foreskin (in uncircumcised men), and in the armpits and groin.

Common fungal infections include jock itch, athlete’s foot, ringworm (a ring-shaped itchy patch), and vaginal infection that causes itching.

If you think you have a yeast or fungal infection, call your doctor. You will need a prescription medicine to cure it.

Itching

Localized itching is often caused by diabetes. It can be caused by a yeast infection, dry

skin, or poor circulation. When poor circulation is the cause of itching, the itchiest areas may be the lower parts of the legs.

You may be able to treat itching yourself. Limit how often you bathe, particularly when the humidity is low. Use mild soap with moisturizer and apply skin cream after bathing.

Diabetic Dermopathy

Diabetes can cause changes in the small blood vessels. These changes can cause skin problems called diabetic dermopathy.

Dermopathy often looks like light brown, scaly patches. These patches may be oval or circular. Some people mistake them for age spots. This disorder most often occurs on the front of both legs. But the legs may not be affected to the same degree. The patches do not hurt, open up, or itch.

Dermopathy is harmless. You do not need to be treated.

Necrobiosis Lipoidica Diabeticorum

Another disease that may be caused by changes in the blood vessels is necrobiosis lipoidica diabeticorum (NLD). NLD is similar to diabetic dermopathy. The difference is that the spots are fewer, but larger and deeper.

NLD often starts as a dull red raised area. After a while, it looks like a shiny scar with a violet border. The blood vessels under the skin may become easier to see. Sometimes NLD is itchy and painful. Sometimes the spots crack open.

NLD is a rare condition. Adult women are the most likely to get it. As long as the sores do not break open, you do not need to have it treated. But if you get open sores, see your doctor for treatment.

Atherosclerosis

Thickening of the arteries - atherosclerosis - can affect the skin on the legs. People with diabetes tend to get atherosclerosis at younger ages than other people do.



As atherosclerosis narrows the blood vessels, the skin changes. It becomes hairless, thin, cool, and shiny. The toes become cold. Toenails thicken and discolor. And exercise causes pain in the calf muscles because the muscles are not getting enough oxygen.

Because blood carries the infection-fighting white cells, affected legs heal slowly when the skin is injured. Even minor scrapes can result in open sores that heal slowly.

People with neuropathy are more likely to suffer foot injuries. These occur because the person does not feel pain, heat, cold, or pressure as well. The person can have an injured foot and not know about it. The wound goes uncared for, and so infections develop easily. Atherosclerosis can make things worse. The reduced blood flow can cause the infection to become severe.

Allergic Reactions

Allergic skin reactions can occur in response to medicines, such as insulin or diabetes pills. You should see your doctor if you think you are having a reaction to a medicine. Be on the lookout for rashes, depressions, or bumps at the sites where you inject insulin.

Diabetic Blisters (Bullosis Diabeticorum)

Rarely, people with diabetes erupt in blisters. Diabetic blisters can occur on the backs of fingers, hands, toes, feet, and, sometimes, on legs or forearms.

These sores look like burn blisters. They sometimes are large. But they are painless

and have no redness around them. They heal by themselves, usually without scars, in about three weeks. They often occur in people who have diabetic neuropathy. The only treatment is to bring blood sugar levels under control.

Eruptive Xanthomatosis

Eruptive xanthomatosis is another condition caused by diabetes that's out of control. It consists of firm, yellow, pea-like enlargements in the skin. Each bump has a red halo and may itch. This condition occurs most often on the backs of hands, feet, arms, legs, and buttocks.

The disorder usually occurs in young men with type 1 diabetes. The person often has high levels of cholesterol and fat in the blood. Like diabetic blisters, these bumps disappear when diabetes control is restored.

Digital Sclerosis

Sometimes, people with diabetes develop tight, thick, waxy skin on the backs of their hands. Sometimes skin on the toes and forehead also becomes thick. The finger joints become stiff and can no longer move the way they should. Rarely, knees, ankles, or elbows also get stiff.

This condition happens to about one third of people who have type 1 diabetes. The only treatment is to bring blood sugar levels under control.

Disseminated Granuloma Annulare

In disseminated granuloma annulare, the person has sharply defined ring-shaped or arc-shaped raised areas on the skin. These rashes occur most often on parts of the body far from the trunk (for example, the fingers or ears). But sometimes the raised areas occur on the trunk. They can be red, red-brown, or skin-colored.

See your doctor if you get rashes like this. There are drugs that can help clear up this condition.

Acanthosis Nigricans

Acanthosis nigricans is a condition in which tan or brown raised areas appear on the sides of the neck, armpits, and groin. Sometimes they also occur on the hands, elbows, and knees.

Acanthosis nigricans usually strikes people who are very overweight. The best treatment is to lose weight. Some creams can help the spots look better.

Good Skin Care

There are several things you can do to head off skin problems:

- Keep your diabetes well managed. People with high glucose levels tend to have dry skin and less ability to fend off harmful bacteria. Both conditions increase the risk of infection.
- Keep skin clean and dry. Use talcum powder in areas where skin touches skin, such as armpits and groin.
(inMotion Editor's Note: See pages 10-11 for more information about using powder, especially if you use a prosthesis.)
- Avoid very hot baths and showers. If your skin is dry, don't use bubble baths. Moisturizing soaps, such as Dove or Basis, may help. Afterward, use an oil-in-water skin cream, such as Lubriderm or Alpha-Keri. But don't put lotions between toes. The extra moisture there can encourage fungus to grow.
- Prevent dry skin. Scratching dry or itchy skin can open it up and allow infection to set in. Moisturize your skin to prevent chapping, especially in cold or windy weather.
- Treat cuts right away. Wash minor cuts with soap and water. Do not use Mercurochrome antiseptic, alcohol, or iodine to clean skin because they are too harsh. Only use an antibiotic cream or ointment if your doctor says it's okay. Cover minor cuts with sterile gauze. See a doctor right away if you get a major cut, burn, or infection.
- During cold, dry months, keep your home more humid. Bathe less during this weather, if possible.
- Use mild shampoos. Do not use feminine hygiene sprays.
- See a dermatologist (skin doctor) about skin problems if you are not able to solve them yourself.
- Take good care of your feet. Check them every day for sores and cuts. Wear broad, flat shoes that fit well. Check your shoes for foreign objects before putting them on.

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How Can Diabetes Hurt My Skin?

Diabetes can hurt your skin in two ways:

1. If your blood glucose is high, your body loses fluid. With less fluid in your body, your skin can get dry. Dry skin can be itchy, causing you to scratch and make it sore. Also, dry skin can crack. Cracks allow germs to enter and cause infection. If your blood glucose is high, it feeds germs and makes infections worse. Skin can get dry on your legs, feet, elbows, and other places on your body.
2. Nerve damage can decrease the amount you sweat. Sweating helps keep your skin soft and moist. Decreased sweating in your feet and legs can cause dry skin.

What Can I Do to Take Care of My Skin?

- After you wash with a mild soap, make sure you rinse and dry yourself well. Check places where water can hide, such as under the arms, under the breasts, between the legs, and between the toes.
- Keep your skin moist by using a lotion or cream after you wash. Ask your doctor to suggest one.
- Drink lots of fluids, such as water, to keep your skin moist and healthy.
- Wear all-cotton underwear. Cotton allows air to move around your body better.
- Check your skin after you wash. Make sure you have no dry, red, or sore spots that might lead to an infection.
- Tell your doctor about any skin problems.

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