

# How Diabetes Can Change Your Skin—and What You Can Do About It

Many diabetics experience dry skin and are at risk of developing other skin conditions too.

By Alice Williams April 29, 2020

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If you're one of the millions of Americans living with diabetes, then you probably know the gist of how it affects your body. The common condition makes it tough for your body to effectively break down glucose, a sugar molecule from food, and convert it into energy. As a result, you have abnormally high levels of blood glucose (blood sugar), which can lead to complications and symptoms unique to diabetics.

While you're probably familiar with some of the more well-known effects of diabetes (such as exhaustion and having to pee a lot), you may be surprised to hear that it can also affect your skin.

## **How Diabetes Affects Skin**

Diabetes is a metabolic condition that affects multiple organs, and the skin is no exception. These are two common ways your skin might be affected if you have diabetes, regardless of whether it's type 1 or type 2.

#### **Dryness**

Diabetics are prone to having extremely dry skin. While it's tough to nail down the exact reason for this, signs point to the elevated blood sugar levels. Someone with diabetes might find themselves taking more trips to the bathroom as their body tries to rid itself of excess sugar, and the loss of fluid can dehydrate the body and dry out the skin. Dry skin is a pain for anyone, but it can be especially severe for diabetics.

Regardless of the cause, people with dry skin get scrapes and cuts more easily, and they often take longer to heal, according to James Beckman, M.D., a board-certified plastic

surgeon and adjunct, associate clinical professor of dermatology at Arkansas Medical School. That's because dryness is a sign of a compromised skin barrier, and results in the thinning and weakening of the skin.

While that might seem like NBD, it can actually lead to serious complications. Diabetics often have nerve issues in their feet, possibly because excess sugar in the blood can damage nerves and interfere with their ability to send signals to the brain. The nerve damage can lead to numbness, which makes it harder to initially feel cuts or blisters. You might overlook a small injury on your foot, and if you don't attend to it immediately and care for it properly, it can result in an infection. Not to startle you, but that can become really serious. "This may allow the infection to progress to the point where an amputation below the knee is the only way for healing to occur," says Dr. Beckman. (Related: The Best Skin-Care Routine for Dry Skin)

## **Less Collagen and Elastin**

Diabetes can also lead to a breakdown of collagen and elastin, two proteins key for healthy-looking skin. Collagen keeps your skin looking full instead of sallow, and elastin helps retain your skin's elasticity and firmness. While elastin and collagen naturally decrease with time, diabetics lose them faster, according to Shasa Hu, M.D., dermatologist and an associate professor of dermatology at the University of Miami. It has to do with glycation, a natural process that happens to everyone but is accelerated in people with diabetes. During glycation, sugar binds with fats or proteins (e.g. collagen or elastin) in the skin, which makes them stiff and inflexible. The glycation process can interfere with the skin's natural regeneration process since collagen and elastin don't repair as easily once the sugar-protein bond is formed, leading to more noticeable fine lines and wrinkles.

As with dryness, the most effective way to combat this is to work with your doctor to control your diabetes and regulate your blood sugar levels. Beyond that, Dr. Hu notes that regular exercise can help slow down the aging process as well, as it increases blood flow, which better delivers nutrients to your skin, and reduces inflammation. This holds true for people with or without diabetes. (Cardio may have an advantage here.)

## **Skin Conditions Linked to Diabetes**

#### **Keratosis Pilaris**

Some people with diabetes develop a condition called keratosis pilaris, which is caused by a build-up of dead skin cells and keratin (a protein in skin, hair, and nails) that blocks the hair follicles. It results in bumpy, rough spots, usually on your upper arms which, while harmless, can be annoying and itchy. While keratosis pilaris is a common skin condition, it seems to be especially prevalent among diabetics, possibly as a result of extreme dryness. In one study published in *Diabetes Care*, 12 percent of subjects with type I diabetes also had keratosis pilaris, whereas only 1.5 percent of the control group had the condition.

While there's no known cure for keratosis pilaris, it often goes away on its own and can appear less severe when combined with regular moisturizing and gentle exfoliation.

## **Acanthosis Nigricans**

Acanthosis nigricans is a condition that includes the darkening of the skin in certain areas, according to Dr. Hu. It can occur in the back of the neck, armpits, groin, knees, elbows, and hands, and appears almost velvet-like in texture. A buildup of insulin (a hormone that regulates the amount of glucose in the blood) may be at the root of the problem. Refresher: People with type 1 diabetes fail to produce enough insulin, whereas people with type 2 diabetes will have insulin-resistance (meaning their body fails to respond normally to insulin). This means an excess of blood sugar triggers the pancreas to release more insulin into the bloodstream. One theory on acanthosis nigricans is that the high insulin levels in the blood trigger an increase in the production of skin cells, which significantly thickens the skin and results in a darkened appearance. Interestingly enough, people with a family history of diabetes have a higher risk of developing this skin condition, even if they don't have diabetes themselves, says Dr. Hu.

You have the option of covering acanthosis nigricans with concealer if it bugs you. Doctors may recommend a mild topical retinoid depending on your skin type and sensitivity but Dr. Hu says that moisturization combined with physical exfoliation could be just as helpful.

## **Diabetic Dermopathy**

As its name suggests, diabetic dermopathy is unique to diabetics, and it's less common than the two conditions mentioned above, says Dr. Hu. It's characterized by hard or firm skin on the shins or calves. Diabetic dermopathy may result from the nerve and blood vessel damage common in people with diabetes and is likely due to post-inflammatory hyperpigmentation (excess production of the pigment melanin following an injury or damage to the skin). While it may not be pleasant to the touch, it's painless and won't result in any further complications.

### **How to Protect Your Skin If You Have Diabetes**

You know what you're up against—now for some solutions. Your first step should be to work with your doctor to effectively control and manage your blood glucose levels. In turn, that can help with many of the skin complications that are a side effect of diabetes.

Dr. Hu also recommends using gentle skin cleansers and non-irritating moisturizers that are rich in emollients (ingredients that prevent moisture loss, such as squalane, jojoba, and cocoa butter) every day. This will help reduce skin dryness or itchiness, according to Dr. Hu. She also recommends avoiding abrasive scrubs and exfoliators.

Another important habit is to carefully inspect your feet on a daily basis. "This can protect from a break in the skin going unnoticed until a serious wound develops," says Dr. Beckman. Gently washing and drying your feet is one of the best routines to get into, he says. If you spot an injury in the process, it's important to take it seriously and reach out to your doctor for advice.

If you notice injuries on other parts of your body, Dr. Beckman suggests cleansing the injured area with good soapy water, applying an antibiotic ointment, and putting on a bandage or dressing to protect it from further harm.







Left: Walgreens

Center: Theraderm

Right: Walgreens

## The Best Skin Products for Diabetes

When choosing skin-care products, you should be looking for options made for dry skin.

Dr. Hu suggests looking into CeraVe Diabetics Dry Skin Cleansing Wash (Buy It, \$11, walgreens.com) and CeraVe Diabetes Dry Skin Relief Hand and Feet Cream (Buy It, \$12, walgreens.com). Both products are formulated with lipids that work to restore your skin's natural barrier. Additionally, they're free from harsh chemicals and fragrances which can further dry out the skin. Win-win.

You can also try looking for products that contain lanolin, a natural oil that easily penetrates dry skin to restore softness. Theraderm Extreme Dry Skin Therapy (Buy It, \$17, theraderm.net) and Theraderm Body Restoration Crème (Buy It, \$17, theraderm.net) are both lanolin-based and can bring sweet relief to dry skin. Using lanolin-based products can help diabetic skin be less prone to developing cracks where bacteria can easily invade to cause infections or other serious problems.

## New Moms Share How Having a Kid Has Changed Their Skin-Care Routine

Having a kid can completely overhaul your skin-care routine—or lead to some super subtle changes.

#### By Mary Anderson

Pregnancy can do a real number on your skin. Acne flare-ups can become a regular occurrence, stretch marks might pop up on your stomach, thighs, breasts, and butt, and you might even develop dark patches on your face and neck, according to the Mayo Clinic. Though most of these issues go away on their own after giving birth, one thing continues to change: Your skin-care routine. Here, four women share what their regimen looks like after welcoming their little ones.

## **Simplicity Is Key**

#### Elise Saetta, pregnant mom of a toddler and beauty director at Macy's

"The more I've simplified my skin-care regimen in motherhood, the better my skin looks. I've pared down my 10-step routine to using balm cleanser, serum, eye cream,

and moisturizer—that's nothing for a beauty director!—plus I quit scrutinizing my skin. It's meant fewer breakouts and more confidence."

### **Go Natural**

#### Rachael Schwartz, mom of two and certified nutrition coach

"I began using coconut oil after I had my first baby. It was the only thing that worked when my nipples were so sore, cracked, and dry from breastfeeding, and I loved the feeling so much that I stuck with it. I cook with it on the regular, and to this day I use it every night on my face to remove makeup as well as on my body instead of lotion—it's made a huge improvement with hydration."





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Hello new week! How's everyone feeling today?! I've been seeing so many amazing posts on tips and tricks on what to do when you're feeling frustrated, angry, need to calm down

during quarantine. Do some deep breathing, take an online yoga class, take a bath with some beautiful candles and eucalyptus. All of that sounds well and good but don't you just want to SCREAM sometimes?! Don't you just want to let yourself go through the motions of feeling angry and frustrated and let it be OK?! I think it's necessary so I'm here to give you some ideas on what to do when that bubble bath  $\odot$  just isn't cutting it!

- Scream into a pillow- this is old school but I find that it really helps. A little crazy? Maybe but honestly sometimes it just feels good to SCREAM!
- ② Give something the finger (not your kids, unless of course it's behind their backs)- I like to do a double finger because it feels more aggressive...it's usually to an IPad these days when I'm unsuccessfully trying to log my daughter onto the 1,000 different apps/programs that the school has us doing.
- 3 Throw something- I usually go for a stuffed animal, usually the small ones because they get more mileage and don't make any noise.

I hope this helps some of you who are feeling a little bitter when constantly scrolling through highlight reels. Raise your hand if you feel me! (a) And please leave any of your own tips below!! Love you all, have a great week! #rachaelschwartznutrition #quarantinetips

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## Make It a Mother-Child Activity

#### Rashidah Timothy, mom of a toddler and media relations VP at M Booth

"I look at how pure my son's skin is, and it inspires me to protect my own. Now we moisturize and apply sunscreen together. I see it as bonding time, and I hope it shows him to be good to his skin." (Related: The Best Body Lotions for Dry Skin)

#### Prepare for a Few Bumps

#### Mallory Abate, M.D., new mom and assistant professor of dermatology at St. Louis University

"The acne I experienced as a new mom is very common. Knowing it was just a phase, I was definitely more accepting of it. I had the typical case: under-the-skin bumps on the cheeks and chin. We call it hormonal acne because it's caused primarily by surges of androgens and progesterone during pregnancy. It tends to get better in the second trimester and steadily improve after delivery, like mine did, but it really varies."