eczema matters

RESEARCH, SUPPORT, AND EDUCATION FOR THOSE AFFECTED BY ECZEMA

SPRING 2018

UNDERSTANDING AD

Screenwriter Peter Moffat sheds light on atopic dermatitis in public awareness campaign

TAKE CHARGE OF YOUR ECZEMA!

Get your atopic dermatitis under control in three easy steps

FINALLY! A GOOD NIGHT'S SLEEP

Why people with eczema have trouble sleeping + tips to wake up better rested

NATIONAL Eczema ASSOCIATION

Trust Natralia to nourish your skin naturally

Born in Australia, and now available worldwide, Natralia grew from a father's desire to help his young son, who faced the day-to-day challenges of eczema. Understanding the side-effects of long-term hydrocortisone use and knowing that eczema is a chronic condition that often results in extensive rashes, he was uncomfortable having his young son use steroid-based creams on a long-term basis. He knew there had to be a better option and so he worked alongside experienced pharmacists to develop **Natralia Eczema & Psoriasis Cream**, a product free from petro-chemicals, parabens and hydro-cortisone.

Since that time, Natralia has grown to include a variety of skin care solutions, from eczema and psoriasis care, to dry skin and restorative treatments. As Natralia has grown, we have maintained our commitment to developing products that are safe and highly effective.

That is our promise.

Natralia offers eczema care products for both adults and children and we understand that eczema requires more than just a rash cream; it requires a regimen of care. Both our adult line of eczema products and our children's line include:

- A hydrocortisone-free, **flare control cream** to help relieve rash, irritation, itching and redness. Formulated with a unique blend of homeopathic, natural herbs and essential oils, the adult product features licorice root, known for its effective anti-itch properties and the children's flare cream contains colloidal oatmeal, known for its ability to gently soothe itchy skin.
- A soap and sulfate free **body wash and shampoo** with coconut and glycerne that helps prevent moisture loss while bathing.
- A **daily moisturizer**, containing colloidal oatmeal that is clinically proven to restore moisture and hydrate the skin for up to 24 hours.

Natralia's Happy Little Bodies products contain colloidal oatmeal to help soothe itchy, eczema rashes and restore moisture. The line is pH balanced for children's skin.

The Natralia Brand is the result of in-depth, focused product development. Each product that carries the Natralia name has been specifically developed to deliver superior efficacy through an innovative and exhaustive research process.

Lacorium Health, the owners of the Natralia brand, are renowned for their innovative approach and global knowledge and have more than 20 years of experience.

For more information about Natralia, visit **www.natralia.com**.

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NATURALLY AUSTRALIAN

www.natralia.com

DON'T LET UNCONTROLLED MODERATE-TO-SEVERE ECZEMA HOLD YOU BACK

DUPIXENT® *(dupilumab) Injection 300mg*

DUPIXENT can help heal your skin from within

The flare-ups you see and feel on your skin can be caused by inflammation happening beneath the surface. So help heal your skin from within with DUPIXENT.

SEE AND FEEL THE CHANGE

An injection you may administer yourself, DUPIXENT is the first treatment of its kind that helps you continuously manage your eczema over time, even between flares when your skin may look clear. DUPIXENT is for adults and is not a steroid.

In Clinical Trials at Week 16:

- More than 1 in 3 patients saw clear or almost clear skin
- Almost half of patients saw significant skin improvement
- Patients experienced a significant reduction in itch
- Most Common Side Effects were injection site reactions, eye and eyelid inflammation, including redness, swelling and itching and cold sores in your mouth or on your lips.

So stay ahead of your eczema symptoms with DUPIXENT.

Talk to your doctor and call 1-844-DUPIXENT (1-844-387-4936) or visit DUPIXENT.com for more information.

INDICATION

DUPIXENT is a prescription medicine used to treat adult patients with moderate-to-severe atopic dermatitis (eczema) that is not well controlled with prescription therapies used on the skin (topical), or who cannot use topical therapies. DUPIXENT can be used with or without topical corticosteroids. It is not known if DUPIXENT is safe and effective in children.

IMPORTANT SAFETY INFORMATION

Do not use if you are allergic to dupilumab or to any of the ingredients in DUPIXENT.

Before using DUPIXENT, tell your healthcare provider about all your medical conditions, including if you:

- have eye problems
- have a parasitic (helminth) infection
- have asthma
- are scheduled to receive any vaccinations. You should not receive a "live vaccine" if you are treated with DUPIXENT.
- are pregnant or plan to become pregnant. It is not known whether DUPIXENT will harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known whether DUPIXENT passes into your breast milk.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins and herbal supplements. If you have asthma and are taking asthma medicines, do not change or stop your asthma medicine without talking to your healthcare provider.

DUPIXENT can cause serious side effects, including:

- **Allergic reactions.** Stop using DUPIXENT and go to the nearest hospital emergency room if you get any of the following symptoms: fever, general ill feeling, swollen lymph nodes, hives, itching, joint pain, or skin rash.
- **Eye problems.** Tell your healthcare provider if you have any new or worsening eye problems, including eye pain or changes in vision.

The most common side effects include injection site reactions, eye and eyelid inflammation, including redness, swelling and itching, and cold sores in your mouth or on your lips.

Tell your healthcare provider if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of DUPIXENT. Call your doctor for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Use DUPIXENT exactly as prescribed. If your healthcare provider decides that you or a caregiver can give DUPIXENT injections, you or your caregiver should receive training on the right way to prepare and inject DUPIXENT. **Do not** try to inject DUPIXENT until you have been shown the right way by your healthcare provider.

Please see accompanying Brief Summary on next page.

SANOFI GENZYME REGENERON

Summary of Information about DUPIXENT® (dupilumab) Rx Only
(DU-pix'-ent)
Injection, for Subcutaneous Use

What is DUPIXENT?
- DUPIXENT is a prescription medicine used to treat adults with moderate-to-severe atopic dermatitis (eczema) that is not well controlled with prescription therapies used on the skin (topical), or who cannot use topical therapies.
- DUPIXENT can be used with or without topical corticosteroids.
- It is not known if DUPIXENT is safe and effective in children.

Who should not use DUPIXENT?
Do not use DUPIXENT if you are allergic to dupilumab or to any of the ingredients in DUPIXENT. See the end of this summary of information for a complete list of ingredients in DUPIXENT.

What should I tell my healthcare provider before using DUPIXENT?

Before using DUPIXENT, tell your healthcare provider about all your medical conditions, including if you:
- have eye problems
- have a parasitic (helminth) infection
- have asthma
- are scheduled to receive any vaccinations. You should not receive a "live vaccine" if you are treated with DUPIXENT.
- are pregnant or plan to become pregnant. It is not known whether DUPIXENT will harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known whether DUPIXENT passes into your breast milk.

Tell your healthcare provider about all of the medicines you take including prescription and over-the-counter medicines, vitamins, and herbal supplements. If you have asthma and are taking asthma medicines, do not change or stop your asthma medicine without talking to your healthcare provider.

How should I use DUPIXENT?
- **See the detailed "Instructions for Use" that comes with DUPIXENT for information on how to prepare and inject DUPIXENT and how to properly store and throw away (dispose of) used DUPIXENT pre-filled syringes.**
- Use DUPIXENT exactly as prescribed by your healthcare provider.
- DUPIXENT comes as a single-dose pre-filled syringe with needle shield.
- DUPIXENT is given as an injection under the skin (subcutaneous injection).
- If your healthcare provider decides that you or a caregiver can give the injections of DUPIXENT, you or your caregiver should receive training on the right way to prepare and inject DUPIXENT. **Do not** try to inject DUPIXENT until you have been shown the right way by your healthcare provider.
- If you miss a dose of DUPIXENT, give the injection within 7 days from the missed dose, then continue with the original schedule. If the missed dose is not given within 7 days, wait until the next scheduled dose to give your DUPIXENT injection.
- If you inject more DUPIXENT than prescribed, call your healthcare provider right away.
- Your healthcare provider may prescribe other topical medicines to use with DUPIXENT. Use other prescribed topical medicines exactly as your healthcare provider tells you to.

What are the possible side effects of DUPIXENT?
DUPIXENT can cause serious side effects, including:
- **Allergic reactions.** Stop using DUPIXENT and go to the nearest hospital emergency room if you get any of the following symptoms: fever, general ill feeling, swollen lymph nodes, hives, itching, joint pain, or skin rash.
- **Eye problems.** Tell your healthcare provider if you have any new or worsening eye problems, including eye pain or changes in vision.

The most common side effects of DUPIXENT include: injection site reactions, eye and eyelid inflammation, including redness, swelling, and itching, or cold sores in your mouth or on your lips
Tell your healthcare provider if you have any side effect that bothers you or that does not go away.
These are not all of the possible side effects of DUPIXENT. Call your doctor for medical advice about side effects. You may report side effects to FDA 1-800-FDA-1088.

General information about the safe and effective use of DUPIXENT.
Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use DUPIXENT for a condition for which it was not prescribed. Do not give DUPIXENT to other people, even if they have the same symptoms that you have. It may harm them.
This is a summary of the most important information about DUPIXENT. If you would like more information, talk with your healthcare provider. You can ask your pharmacist or healthcare provider for more information about DUPIXENT that is written for healthcare professionals.
For more information about DUPIXENT, go to www.DUPIXENT.com or call 1-844-DUPIXENT (1-844-387-4936)

What are the ingredients in DUPIXENT?
Active ingredient: dupilumab
Inactive ingredients: L-arginine hydrochloride, L-histidine, polysorbate 80, sodium acetate, sucrose, and water for injection

Manufactured by: Regeneron Pharmaceuticals, Inc., Tarrytown, NY 10591 U.S. License # 1760; Marketed by sanofi-aventis U.S. LLC, (Bridgewater, NJ 08807) and Regeneron Pharmaceuticals, Inc. (Tarrytown, NY 10591) / DUPIXENT is a registered trademark of Sanofi Biotechnology / ©2017 Regeneron Pharmaceuticals, Inc. / sanofi-aventis U.S. LLC. All rights reserved. Issue Date: April 2017

eczema matters

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In This Issue

Featured

Departments

NATIONAL Eczema ASSOCIATION

OUR MISSION
The National Eczema Association (NEA) improves the health and quality of life for individuals with eczema through research, support and education.

NATIONAL ECZEMA ASSOCIATION ASSOCIATION is a national nonprofit patient advocacy organization dedicated to eczema education and research. The association was founded in 1988 in Portland, Oregon, by individuals witheczema, nurses, physicians and others concerned with the enormous social, medical and economic consequences of this disease. NEA is governed by a volunteer Board of Directors and advised on medical issues by a volunteer Scientific Advisory Committee. The association is supported by individual and corporate donations. Advertising is accepted for publication if they are relevant to people with eczema and meet certain standards.

Eczema Matters provides health information from a variety of sources, but this information does not dictate an exclusive treatment course and is not intended as medical advice. Persons with questions regarding specific symptoms or treatments should consult a professional health care provider who has the appropriate training and experience. Opinions expressed by Eczema Matters do not necessarily reflect the views of the National Eczema Association, its Board of Directors, its Scientific Advisory Committee or its contributors.

Ask any of my staff, and they'll tell you my favorite thing about being NEA's president and CEO is forging new friendships in the eczema community. I am forever humbled and inspired by your personal journeys. I love it when people say, "I don't let my eczema control me!" I believe everyone should feel empowered to take charge of their health, to the degree possible. I hope this issue of *Eczema Matters* will help encourage you to do just that as you continue on your own journey.

Understanding the causes and symptoms of atopic dermatitis (AD) is one of the most crucial steps you can take on your path. Flip to Discovery Zone on page 17 for a rundown of the latest discoveries in disease research and treatments. See? Just by reading this magazine and staying informed, you're in the empowerment zone!

You may have intimate knowledge of this disease, but how well do the people around you understand AD? NEA is a proud partner in the Understand AD: A Day in the Life program featuring the award-wining screenwriter and playwright Peter Moffat. I had the opportunity to work personally with Peter, and I tell you, he is one of the most genuine people I have ever met, and a wonderful new friend to NEA. For more information on this groundbreaking initiative to raise awareness about the impact of uncontrolled AD on a global scale, turn to page 28.

Our "Take Charge of Your Eczema" feature on page 21 goes into the specifics of how you can take better control of your condition. You must first understand the level of severity of your AD, including how much of your body is covered and the disease's impact on your quality of life. Then, open up the lines of communication with your provider so you can work together as a team to find the right treatment plan for you.

You'll want to consult with your doctor first if you plan to explore natural or alternative therapies, which is a topic we cover extensively in this issue. Scratch Pad, on page 5, is where you'll find product suggestions and lifestyle tips from other eczema patients. Dr. Peter Lio addresses complementary and alternative eczema treatments that are shown to be effective through rigorous, scientific research in "Ask a Doctor" on page 26. Dr. Lio also happens to be one of the co-authors of our medical marijuana feature on page 13.

Never forget that NEA is here to serve you! We're not afraid to address controversial topics or ask policymakers tough questions on the frontlines of Washington, D.C. We're constantly developing new events, programs and platforms that will make life easier for people with AD. Turn to NEA News on page 33 to learn more about what our organization is doing for you.

Yours,
Julie Block

P.S.
Don't forget to join us for Eczema Expo '18,
our eczema conference and kids camp in Chicago, June 21-24, 2018!

What alternative treatments or supplements have you used to treat eczema?

Whole Body Cryotherapy helped me tremendously. Doing it several times weekly gave me the best results, but it is expensive and I have yet to hear of any medical insurances covering it. – @RACHEL.TSW

Becoming vegan has been the best decision I have ever made. Food is fuel. Food is my medicine. I use a combination of olive oil and coconut oil for moisturizing and tea tree oil as an anti-inflammatory for my flare-ups. – @CCRAYNE

My daughter takes vitamin c with each meal, which helps her nickel allergy that causes some of her eczema and contact dermatitis. – AMANDA D.

Vitamin D definitely helps me. I take 4000 IU of Carlson liquid D3. I also take one spoonful of the ultimate omega liquid fish oil by Nordic Naturals. And a daily turmeric shot: 1 teaspoon of turmeric, 1/3 teaspoon of ginger, a tiny pinch of freshly ground black pepper and several ounces of coconut milk. – KATHLEEN F.

Vitamin B complex works for me! – ROSE MARIE A.

Our kid's dermatologist recommended Omega-3 for eczema. We think it's been helpful to both our son and daughter. – KEN. A.

After taking Toctino for six months for my eczema, I decided to try adding a high dose of cod liver oil with a high concentration of vitamins A and D. I do believe it helps, but I am still seeking the cause of the outbreaks. – WENDY M.

Hair skin and nails vitamins and probiotics work well for me. – LEANA Q.

Digestive enzymes helped my eczema. – KOMIK M.

I went gluten-free. – JILL R.

Responses have been edited for length and clarity. The opinions expressed by NEA contributors are their own and do not necessarily reflect the opinions or positions of the National Eczema Association.

Finally! A GOOD NIGHT'S SLEEP

A sleep expert explains why people with eczema have difficulty falling and staying asleep and offers tips for how to wake up better rested.

BY LISA MELTZER, MD

Sleep is as important to humans as breathing, eating and drinking. Yet for patients and families dealing with eczema, sleep often comes in short bursts between itching and scratching cycles. As a doctor, I want to help you better understand why sleep is so challenging when eczema is in the picture and offer tips for how to get a better night's rest. ►

Waking during the night is normal

We go through different stages of sleep. The first part of the night is spent in our deepest sleep and the last part of the night in dreaming (rapid eye movement or REM) sleep, with the rest of the night spent in lighter stages of sleep.

In children, sleep cycles are about an hour. In adults, they are 90 minutes to two hours. At the end of every sleep cycle, we have a short arousal where our brain wakes up briefly and then returns to sleep.

Most people are not aware of the fact that they wake at least two to six times a night. In terms of eczema, this is important for two reasons. First, during these brief arousals, the itch sensation may kick in and the reflex of scratching begins.

Unfortunately, the reflexive scratching will often result in increased itching/scratching and may even result in bleeding. Remember that a sleep cycle is shorter in children, so it may appear as if your child is scratching in their sleep every hour on the hour.

The other reason it is important to understand that we all wake multiple times per night is related to how we fall asleep. We all have favorite ways of falling asleep: a teddy bear, a fan or some type of white noise.

For me, it is pillows. I put my head on these two pillows and fall asleep easily at bedtime. But when I wake in the middle of the night and find my pillows on the floor, I can't go back to sleep. The pillows falling off the bed did not wake me, but when I had a normal arousal, I couldn't go back to sleep without my pillows. I scoop my pillows up, put my head on them and return to sleep.

The moral of the story is if you help your child fall asleep at bedtime by lying with him, he will then need you to return to sleep following normal nighttime arousals. All that said, if you need to monitor your child for health reasons (such as to keep them from scratching), then you need to share a bed or room with them.

However, if medical supervision is not necessary, then you may want to consider the benefits of teaching them to fall asleep independently at bedtime (i.e., no more helicopter kicks in the middle of the night!). Over time, they will learn to return to sleep in the middle of the night on their own. ►

Our internal clock is ticking

Our internal clock, or circadian rhythm, is a strong factor in helping us sleep. The funny thing about our circadian rhythm is that it runs on a clock that is slightly more than 24 hours. That means we can adapt when we cross time zones or at the start/end of daylight saving time.

Our internal clock is regulated by light and dark, as darkness is a cue for our brains to produce the hormone melatonin. Naturally produced melatonin doesn't make us sleepy at the onset of darkness, but instead prepares our body for sleeping by doing things like cooling our core body temperature.

However, this means that in the hour or two before bedtime, heat escapes our body through the periphery, in particular extremities and skin. This is believed to be one factor that contributes to increased itchiness right before bed.

In fact, studies have shown that children with eczema sleep soundest between 2 and 4 a.m., when they reach their coolest body temperatures, both internal and external. This is contrary to what we know about sleep physiology, as our deepest (and soundest) sleep occurs in the first part of the night, usually at a time when we find many children with eczema to be the most restless. ►

Dr. Lisa Meltzer is an associate professor of pediatrics at National Jewish Health in Denver. She is board certified in behavioral sleep medicine by the American Board of Sleep Medicine and directs the Pediatric Behavioral Sleep Clinic at National Jewish Health.

What can I do to improve sleep?

We find that once eczema improves, so does sleep. But that is pretty obvious and not necessarily the answer you are looking for. So here are some other suggestions to ensure healthy sleep practices for every member of your family.

1.) Go to bed and wake up at the same time every day. Easier said than done, I know. But if you've never tried it, get yourself (and your children) on a consistent sleep schedule. You will find it is easier to fall asleep and wake up every day. Of course, this means not staying up late or sleeping in on weekends. But having more energy to enjoy the day is usually worth the trade-off.

2.) Create a consistent bedtime routine. Bedtime routines are not just for young children. In order to fall asleep, you must be calm and relaxed. While our technology turns off with the touch of a switch, our brains have a dimmer switch that takes a little while to shut down. Set 15-30 minutes aside before bed to have the same quiet routine every night (e.g., snack, brush teeth, read, lights out).

3.) Make bedrooms a place for sleeping. Bedrooms should be cool, dark and comfortable. It is also really important that they be technology-free. Children and adolescents with technology in their bedrooms sleep on average 30 minutes less per night, and it only takes a small amount of sleep loss to cause problems with learning, attention and behavior. Also, the light that comes from these devices is enough to prevent the release of melatonin, making it difficult to fall asleep. Set a bedtime for everyone's devices and tuck them in to charge in a central location (i.e., kitchen). It is best if devices are shut down 30-60 minutes before bedtime. If you or your child uses an electronic reader, make sure that the screen is on night mode and that there are no other options (e.g., internet, apps) that could be distracting. If you keep your phone by your bedside for emergencies, make sure it is on night mode, alerting you only when a child is calling or there is a true emergency.

4.) Limit caffeine intake after lunch. Four to six hours after you consume caffeine, it is usually still buzzing in your brain (unless you have a really high tolerance for caffeine!). Caffeine consumed after school or at dinner can interfere with falling asleep. In general, children should not be consuming caffeine. Be aware that caffeine comes in many different products, including the obvious (e.g., Coke, Pepsi, Mountain Dew, coffee, iced tea, etc.), the less obvious (e.g., Sunkist orange soda, Barq's root beer, A&W cream soda), and the surprising (e.g., certain gums, candy, maple syrup and even bagels!).

Although some of these recommendations can be difficult to follow when eczema is flaring, stick to them as much as possible, in both good and bad times, to increase your family's chances for better sleep quality and longer sleep duration. ✳

FATHER OF THE YEAR

A competition at his gym enabled Anthony Trias and his teammates to win a $5,000 prize, which was donated to NEA in honor of his son, Aiden.

BY MARGARET CRANE

Atopic dermatitis runs in Anthony Trias' family. His mother has it, and so does his 6-year-old son, Aiden. "The disease skipped me and our daughter Avery, but it attacked Aiden soon after he was born," said Trias, who has moved heaven and earth to take care of his son ever since.

A lively kindergartner, Aiden has become more aware that he's different from the other children in his class.

"He notices it now when others want to refrain from socializing with him," Trias said. He knows he has a problem, and he's able to share his feelings about it. And he's curious too: 'Why am I so itchy, Dad? Why is my skin all red and weird?' Luckily, I don't have to come up with answers to his questions all by myself."

Trias, a certified financial planner based in Northern California's Marin County, heard about the National Eczema Association (NEA) through a client—"a serendipitous but welcome accident," he said. NEA's Eczema: Tools for School kit helped him educate his son's principal and teachers, along with his friends, neighbors and fellow parents, about the disease, especially as it affects children.

Trias' client also helped him connect with NEA President and CEO Julie Block. "I learned that NEA is headquartered right in my backyard," Trias said "I was even able to meet with Julie for breakfast on a Sunday morning this past summer. That meeting meant a lot to our family, and it charged me up to do even more for my son and for others who have AD."

Going the extra mile for Aiden and NEA

Soon, Trias found a promising way to meld his longtime interest in fitness with his newfound philanthropic spirit. His gym—appropriately named Empower—was about to sponsor a contest. Several teams would vie for a cash gift to their chosen charity. But Trias couldn't participate due to a scheduling conflict. ►

Photo courtesy of
Theresa Knight Photography

Then serendipity struck again: The contest was postponed to Sept. 30, 2017, allowing Trias to say "yes" when one of the teams recruited him.

"I've been doing high-intensity interval training for some time, so I was prepared to compete," he said. "Several stations were set up, each requiring a different activity, including squats, push-ups and weight-lifting. The judges would track the number of repetitions each team racked up, and the team with the highest final total would win."

The last station was an uphill sprint, the activity that was weighted most heavily in the contest. "We had to run up one of the steepest hills in San Francisco," Trias recalled. As I stood there at the ready, I found the determination to pull through. I told myself that I had to do this for Aiden. And suddenly I found the extra speed I needed to give my team a head start and the winning edge."

Trias' team was about to receive a check for $5,000, but its members hadn't chosen a charity yet. That's when he went the extra mile and proposed NEA as the recipient of the gift.

He promptly sent photos of Aiden to all his teammates, along with an explanation of the disease, a brief overview of Aiden's background and a deeply felt account of what it's like for an eczema family to deal with their child's suffering. He described the lack of effective treatments, the frequent lathering of creams and ointments, the sleepless nights and the worrisome days. In that moment, he became the best advocate a child could have.

Trias' team members didn't hesitate to adopt NEA as the recipient of their winnings. Since then, their new awareness of the disease has begun to ripple through the community. Trias found his own sense of empowerment that day, with a ripple effect in his life. NEA received a significant gift and a great bunch of new friends. In other words, everybody won! ✳

CAN MARIJUANA HELP ECZEMA?

A medical doctor and researchers in the cannabis industry explain the science behind cannabis as a potential treatment for atopic dermatitis.

BY PETER LIO, MD, HELENA YARDLEY, PHD FRANKLIN BIOSCIENCE, & JON FERNANDEZ, SVP FRANKLIN BIOSCIENCE

Weed cream. THC lotion. CBD salve. They go by many names, and there is a lot of interest and hope in the dermatological community that marijuana—or cannabis—may provide an alternate treatment pathway for a variety of skin diseases, especially atopic dermatitis (AD).

As of 2017, 29 states and Washington, D.C. have legalized some type of marijuana program. These programs range from full legalization for recreational use, to medical use only, or decriminalization.

Dermatologists across the country, particularly in states where cannabis has been made legal, are inundated with questions such as, "Will tetrahydrocannabinol (THC) or cannabidiol (CBD) topicals work for my skin condition?"

Unfortunately, the fractured regulatory market of cannabis topicals makes it challenging for doctors, consumers and even regulators to understand the benefits and risks. In this article, we'll take a look at the science and potential benefit behind the molecules found in marijuana for dermatological conditions.

The science behind medical marijuana

Marijuana, derived from the plant Cannabis sativa, is one of the oldest and most widely used drugs worldwide. Of the more than 60 agents in marijuana, only THC has intoxicating effects. This has not only contributed to its illicit status in the medical field, but has also hindered research on its health benefits.

Cannabis, marijuana and hemp are often lumped together as a single plant. Cannabis or marijuana, and other related colloquialisms such as weed, pot and ganja, are used to describe THC-rich cannabis varieties that, when used, make people feel intoxicated.

Hemp is legally defined as a cannabis plant having less than 0.3 percent THC, so it is often termed a "low THC variety." Marijuana is legally defined as cannabis having greater than 0.3 percent THC. If that wasn't complicated enough, marijuana and hemp are regulated separately, with less regulatory oversight for hemp.

Aside from the array of major cannabinoids, a variety of other molecules are produced by both hemp and marijuana, including terpenes, which create the unique scent from one ►

strain of plant to another, and flavonoids, which contribute to the pigment of the plant.

Marijuana has relatively higher concentrations of cannabinoids, terpenes and other molecules leading to its intense scent and coloring, and these constituents interact with the human body through the endocannabinoid system, which then interacts with other physiological systems.

The relatively recent discovery of cannabinoid receptors throughout the human body has led to more open discussion on their role as a viable treatment for diseases.

Not all cannabinoids make people feel "high"

Best known as the main chemical agent in marijuana, THC is responsible for its psychoactive properties, which has stigmatized the plant in the minds of many people. However, cannabinoids are a diverse group of compounds that have great potential to treat many medical conditions without making the patient feel intoxicated.

There are five major cannabinoids found in marijuana:
1) cannabidiol (CBD)
2) cannabichromene (CBC)
3) cannabigerol (CBG)
4) delta (9)-tetrahydrocannabinol (THC)
5) cannabinol (CBN)

Since the first human cannabinoid receptors were discovered in the late 20th century, many applications for these extracts of the cannabis plant have been found.

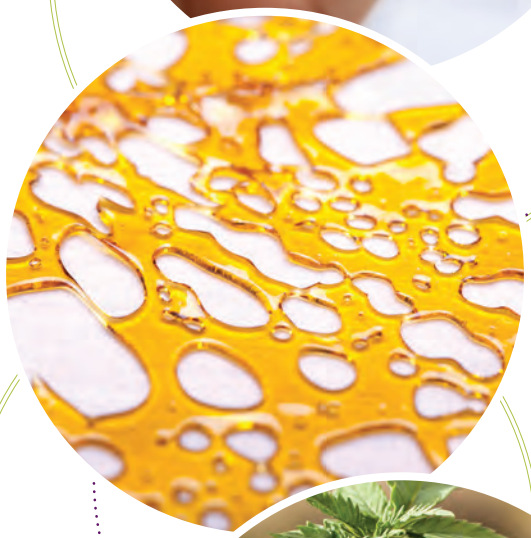
Of particular interest in AD are these respective cannabinoids' anti-inflammatory and anti-itch properties. Additionally, the high safety profile and relatively low levels of cannabinoids needed to have an effect on the skin result in low systemic absorption into the bloodstream, which eliminates the risk of potential intoxication from THC.

How does cannabis help eczema?

It has long been observed that cannabinoids possess anti-inflammatory, antimicrobial and anti-itch qualities, but not until recently has high-quality research been published to understand the physiological effects underlying these anecdotal reports.

Dr. Henry Granger Piffard, MD (1842-1910), was one of the founders of American dermatology. He was the founding editor of the *Journal of Cutaneous and Venereal Diseases*, known by its current name, *JAMA Dermatology.*

The first textbook of dermatologic therapeutics was also written by Piffard. In it he notes, "a pill of cannabis indica at bedtime has at my hands sometimes afforded relief to the intolerable itching of eczema." Since then, there have been myriad studies published on the potential benefits of cannabinoids in skin conditions. ►



Many features of AD contribute to itch, particularly dry skin, histamine release and sensory nerve fibers. Cannabinoids, however, have a powerful anti-itch effect. There are receptors in the skin that interact with cannabinoids that could reduce the symptoms and appearance of AD. These effects happen through a constellation of interactions between phytocannabinoids and our endogenous cannabinoid system.

Another way cannabinoids hold promise as a treatment are through management of Staphylococcus aureus colonization, which is both a complication and a driving factor of AD. The antimicrobial characteristics of cannabinoids have been referenced since the 1980s, but a more detailed analysis of individual cannabinoids found that all five major cannabinoids showed potent activity against a variety of S. aureus strains.

What does this mean? Cannabinoids have an anti-microbial effect, but more testing is needed to understand the risks and benefits of cannabinoids in dermatology.

Cannabinoids also exhibit anti-inflammatory properties. Researchers demonstrated that topical THC suppresses allergic contact dermatitis in mice by activating CB1 receptors. Other molecules, similar to those present in cannabis, have also demonstrated significant anti-pain properties in rat models.

There are reports of direct improvement of AD with topical cannabinoids. A recent study demonstrated that a molecule interacting with the endocannabinoid system inhibited mast cell activation. Mast cells are immune cells that release histamine when activated, which leads to intense itching and inflammation.

In a human trial for patients with AD, an endocannabinoid cream improved severity of itch and loss of sleep by an average of 60 percent among subjects. Twenty percent of subjects were able to stop their topical immunomodulators, 38 percent ceased using their oral antihistamines, and 33.6 percent no longer felt the need to maintain their topical steroid regimen by the end of the study. ►

The future of cannabis creams

For eczema patients, extra caution should be taken because a variety of known irritants are very prevalent in many "weed creams." The indiscriminate addition of terpenes that can be irritating are often included in these formulations.

Special attention should be given to choosing a product to ensure that only non-irritating terpenes are included in the formula. Topicals should be chosen based on the profile of ingredients that are known to reduce pain, inflammation and irritation for the skin, not formulations that may have been developed for muscle and joint pain. Additionally, excess solvents from the manufacturing process could also be present.

With 29 states and counting having some form of legalization of medical marijuana, this means that there are at least 29 state regulatory schemes.

To further complicate things, hemp-based products(low THC varieties) can be purchased online and have virtually no regulatory oversight for potency, consistency or contaminants including pesticides and metals.

Incorrect dosing and inaccurate labeling has plagued the industry since inception. A recent study by Penn State University determined that up to 70 percent of online CBD products are inaccurately labeled.

Until clinical data is created for specific products, the best advice may be to pay special attention to the ingredient lists and make sure that products are tested by a third-party laboratory instead of the manufacturer themselves. State markets with dispensaries typically regulate testing, which is an added consumer protection compared to purchasing a product on the internet.

Cannabinoids represent an exciting prospect for the future of AD therapy. With measurable anti-itch, anti-pain, anti-microbial and anti-inflammatory properties, the effect of cannabinoids in patients with AD has already begun to be demonstrated. ✳

Disclaimer: The information provided in this article has not been evaluated or approved by the U.S. Food and Drug Administration (FDA). It is not medical advice. If you are considering making any changes to your lifestyle, diet or nutrition, you should consult with your doctor or other health care provider. Conflicts of interest statement: Helena Yardley, PhD and Jon Fernandez, SVP are employees of Franklin BioScience, the manufacturer of Altus products. Peter Lio, MD is on the advisory board of Franklin BioScience.

DISCOVERY ZONE

The latest news, research and discoveries about eczema

BY KATHRYN JONES

Are flu shots safe and effective for people with AD?

People living with atopic dermatitis often wonder if influenza vaccinations, or flu shots, are safe. They have an abnormal immune system that leads to a hyper-sensitive inflammatory response. In order to lower this inflammatory response, doctors prescribe systemic medications that can weaken the immune system. A weakened immune system makes it more difficult for the body to fight off viruses and infections.

This can feel like a Catch-22 for people with AD. They know vaccines are key to increasing the body's resistance to bacteria and viruses, yet they also know they are prone to bacterial skin infections like Staphylococcus aureus (staph) that can wreak havoc on the immune system and become life-threatening if left uncontrolled. People with AD might wonder, "Doesn't my immune system need to be strong to withstand a flu shot?"

Flu shots are safe for people with weakened immune systems as long as they get a "killed" vaccine. A live vaccine contains living bacteria or viruses that have been modified to lose their disease-causing ability. A killed vaccine contains bacteria or viruses that are not living and therefore do not pose any threat to a weakened immune system.

Even though live vaccines have lost their disease-causing ability, medical professionals do not recommend administering one to a person with a deficient immune system. Also, family members or household contacts should not receive live vaccines as they might transmit the live virus to an immune-deficient member of the household.

The Centers for Disease Control (CDC) recommends the use of a "killed" injectable influenza vaccine during the 2017-2018 flu season. The nasal spray flu vaccine is a live attenuated influenza vaccine and is not recommended by the CDC.

Now, here's where things get interesting for people with AD. There are two types of injectable flu shots: intradermal (injected into the skin) vs. intramuscular (injected into the muscle). ✳

Intradermal flu shots have been widely used since 2011. They use a much smaller needle and require 40 percent less antigen, which is the part of the vaccine that helps your body build up protection against flu viruses. This is useful because the same amount of available antigen can make more doses of the vaccine and save more lives.

However, it is not known whether people with AD respond differently to intradermal and intramuscular flu shots, especially since a large number of people with AD have skin colonized with staph bacteria. A group of researchers set out to solve this mystery, and the results of their study were published in the February 2017 issue of *The Journal of Allergy & Clinical Immunology*.

Intradermal flu shots were administered to patients with moderate to severe AD as well as those who do not have the disease. They found no difference in vaccine response to intradermal flu shots between patients with AD and those without. Vaccines injected into the skin are just as effective on people with AD as those who do not have the disease.

Intramuscular flu shots were administered to people with AD, and scientists then compared the antibody response in AD patients receiving the intradermal vs. intramuscular vaccine. Once again, they found no difference in vaccine response between people with AD whose flu shots were injected into their skin vs. their muscle.

However, a subset of patients with AD who had skin colonization by Staphylococcus aureus developed a lower response to two of the three influenza strains in the vaccine. This was only when the vaccine was administered intradermally.

Given that a majority of people with AD have staph bacteria colonized in their skin, moving forward, it may be recommended that people with AD receive intramuscular flu shots instead of intradermal. ✳

Oral systemic baricitinib shows promise in clinical trial

A promising, new oral treatment for atopic dermatitis (AD) was the biggest eczema news coming out of the 26th European Academy of Dermatology and Venereology (EADV) Congress. The annual event took place in September 2017 in Geneva, Switzerland.

Baricitinib was found to "significantly improve" the signs and symptoms of AD compared with the placebo arm treated with a topical corticosteroid alone, according to Dr. Emma Guttman-Yassky, who presented results from the phase 2 clinical trials to leading medical experts from around the world.

However, "I think this potentially provides a new oral treatment that can be used in moderate to severe patients with or without topical steroids," Guttman-Yassky told a *Dermatology Times* reporter covering the event.

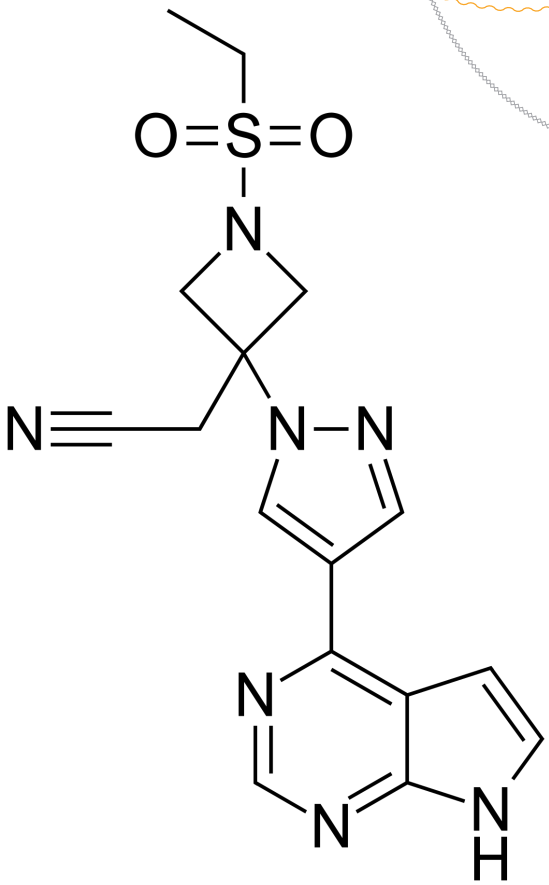
Baricitinib is a Janus kinase (JAK) inhibitor. JAK inhibitors are a type of medication that stop the activity of one or more of the Janus kinase family of enzymes. In the case of baricitinib, it impedes the enzymes JAK 1 and JAK 2.

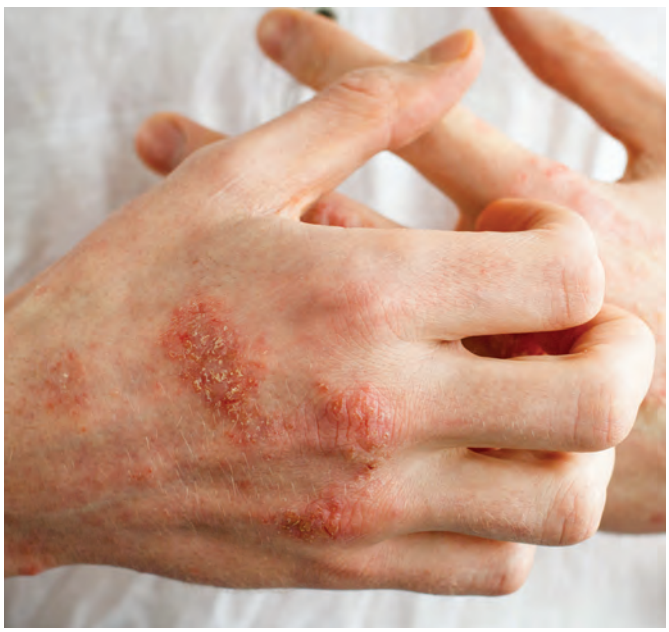
Cytokines are small cell proteins that play role in cell growth and immune response. They function by binding to and activating cytokine receptors. These cytokine receptors rely on JAK enzymes to send signals to the immune system. JAK inhibitors like baricitinib block cytokine signaling that leads to an inflammatory response in the immune system.

JAK inhibitors have been effective at treating cancers and inflammatory diseases such as rheumatoid arthritis, but only recently have they been considered for the treatment of skin conditions such as AD. For maximum effectiveness, more dermatologists are prescribing the use of systemic treatments, such as JAK inhibitors, in conjunction with topical corticosteroids for the treatment of moderate to severe AD.

All 124 patients in the 16-week, double-blind, placebo-controlled study were treated with a mid-potency topical corticosteroid starting four weeks before randomization. The group that took 4 milligrams of baricitinib once daily saw significantly better results within two weeks compared with the group treated with the topical corticosteroid alone.

The most common side effects in the group treated with baricitinib were headaches, common colds and upper respiratory tract infections. "Overall, the drug was very well tolerated," said Guttman-Yassky, adding that a phase 3 clinical trial for baricitinib is now in the planning stages. ✳





Kids with AD under age 2 at greater risk for asthma, allergies

Children under 2 years old with early signs of atopic dermatitis have a greater risk of developing comorbidities (related health conditions), such as asthma, allergic rhinitis (hay fever) and food allergies, according to research published in *JAMA Pediatrics* in October 2017.

For more than 60 percent of children in developed countries with atopic dermatitis, the condition is apparent by the time they are 24 months old. Some children outgrow AD, but for others, it can extend into adulthood leading to the aforementioned comorbidities. The onset of these related conditions is often dubbed the "atopic march."

It's well known that babies who have parents with one or more of these three comorbidities are at greater risk of developing AD. But over the past couple of years, researchers have questioned whether this atopic march could be explained by different subgroups depending on what age the disease begins and whether the disease progresses into adulthood.

The study consisted of 1,038 children from rural areas of Austria, Finland, France, Germany and Switzerland. Researchers, led by Dr. Caroline Roduit of Switzerland's University of Zurich, identified four clinical phenotypes for AD that are characterized by age of onset and the natural course of the disease from birth to age 6.

Phenotypes are the observable physical characteristics of an organism, such as its appearance, development and behavior. The four phenotypes identified in the AD study were:

- Onset of the disease within 24 months, but it disappears by age 4
- Onset of the disease within 24 months, but it persists through age 6
- Late onset of the disease (after 24 months)
- Never/infrequent, i.e., children who don't fit in the above categories

Some of the study's findings did not surprise researchers. For instance, having a family history of allergy was associated with all AD phenotypes, but especially for those with the early persistent AD phenotype.

Children of parents with a history of allergies (roughly half of the children in the study) were five to six times more likely to develop AD compared to children whose parents did not have a history of allergies. Also, parents with AD, asthma and allergic rhinitis dermatitis were more likely to have children who developed atopic dermatitis by age 2.

Children who developed AD before age 2 were more likely to develop asthma and food allergies by age 6, especially among those with persistent eczemic symptoms. However, for children who developed AD after age 2, researchers identified an association with allergic rhinitis, but not asthma or food allergies.

Using the same study population, previous research conducted by Roduit's team showed that prenatal exposure to farm animals was associated with a lower risk of AD. The new study showed that prenatal exposure to farm animals tended to protect against the development of all AD phenotypes. But for household pets, that protective effect of prenatal exposure was seen only in children with the early persistent phenotype, specifically among children with allergy-prone parents.

The researchers also found that the introduction of yogurt during an infant's first 12 months proved to be a protective factor against the early-persistent AD phenotype. In other words, the study suggests that both genetic and environmental factors (such as early exposure to animals and certain foods) influence the course of AD differently depending on the phenotype. ✳

THERE'S MORE TO DISCOVER ONLINE!

Scientists are making tremendous strides in conducting groundbreaking research needed to bring us better treatments and a cure. For the latest on eczema-related research, visit **national/eczema.org/category/discoveries**.

TAKE CHARGE OF YOUR ECZEMA!

Getting your atopic dermatitis symptoms under control will be much easier if you take it step by step.

BY KATHRYN JONES

For most people with mild forms of eczema, a daily skin care routine is all they need to keep their condition under control. But that's not always the case for adults and children with moderate to severe atopic dermatitis (AD)—the most common, difficult-to-treat form of eczema that counts asthma, allergies and depression among its correlated health conditions.

Those with AD often find themselves on a never-ending quest to identify the allergens, weather patterns and other triggers that serve as clues behind their mysterious flare-ups. They jump from treatment to treatment, sometimes achieving temporary relief from the redness and itch. But the medication eventually stops working, the flare-ups return with a vengeance, and they're back to square one feeling defeated and unsure of what to do next.

"Many patients can achieve disease control with good skin care habits and topical treatments. However, these treatments often have inadequate efficacy in patients with moderate to severe AD," said Mark Boguniewicz, MD, an allergist and immunologist at National Jewish Health and Professor at the University of Colorado School of Medicine in Denver.

"Until recently, the only FDA-approved systemic treatments for AD were systemic corticosteroids. But these are not recommended because of short- and long-term side effects, and patients often experience rebound flares after discontinuing the systemic steroid. The lack of safe and effective systemic treatments means that most moderate to severe AD patients' disease is often not well controlled."

A steering committee (SC) co-chaired by Boguniewicz and Mark Lebwohl, MD, professor and system chair at Mount Sinai in New York City, and consisting of leading AD experts, including dermatologists, allergists and NEA President and CEO Julie Block, embarked on a quest to address these unmet patient needs.

From July 2016 to January 2017, the SC developed recommendations to help medical providers achieve better results in treating patients with moderate to severe AD given the new options now available. The recommendations were published in the November-December 2017 issue of *Journal of Allergy and Clinical Immunology: In Practice*.

"Researchers are working harder than ever to identify the underlying causes of atopic dermatitis and develop treatments that get to the core of the issue instead of simply masking disease symptoms. NEA is committed to educating the medical community about new treatment options coming onstream, so doctors can work in tandem with patients to achieve better health outcomes," Block says.

Your friends at the National Eczema Association think you have what it takes to master this quest. The time has come to TAKE CHARGE OF YOUR ECZEMA! We'll show you how to do it in three easy steps. ►

STEP 1:
UNDERSTAND THE SEVERITY OF YOUR DISEASE.

Whether you are newly diagnosed, suspect you have AD or have been living with the disease for years, the first step to taking charge is having a complete understanding of what atopic dermatitis is and how it impacts your day-to-day life.

Knowledge is power, so if you haven't already, peruse the National Eczema Association website at nationaleczema.org. Here, you can learn everything there is to know about AD and other forms of eczema such as contact dermatitis, seborrheic dermatitis, dyshidrotic eczema and nummular dermatitis.

"These diseases may require different treatments, and determining the correct diagnosis is crucial. In addition, a single patient can manifest with more than one type of eczema," said Boguniewicz.

Because eczema affects people in myriad ways, it can be tricky to diagnose. The SC recommends medical providers conduct thorough clinical assessments on patients. They should inspect the pattern and distribution of skin lesions, while taking into consideration how lesions appear differently on various skin tones.

For instance, some people with AD experience lichenification (thick or leathery skin), others see dyspigmentation (redness, darkening or other color changes), and nearly all of them experience varying levels of pain, sleeplessness and pruritus, the medical term for itch.

AD has ranging levels of severity, including mild, moderate and severe. Several avenues must be explored to determine a patient's severity level.

• *How much of the body surface area (BSA) is covered with disease?* The most consistent method across age and race is to equate the adult palm without fingers as 0.5 percent total BSA. People with moderate to severe AD have a BSA of 10 percent or higher. That's about 20 palms' worth of skin.

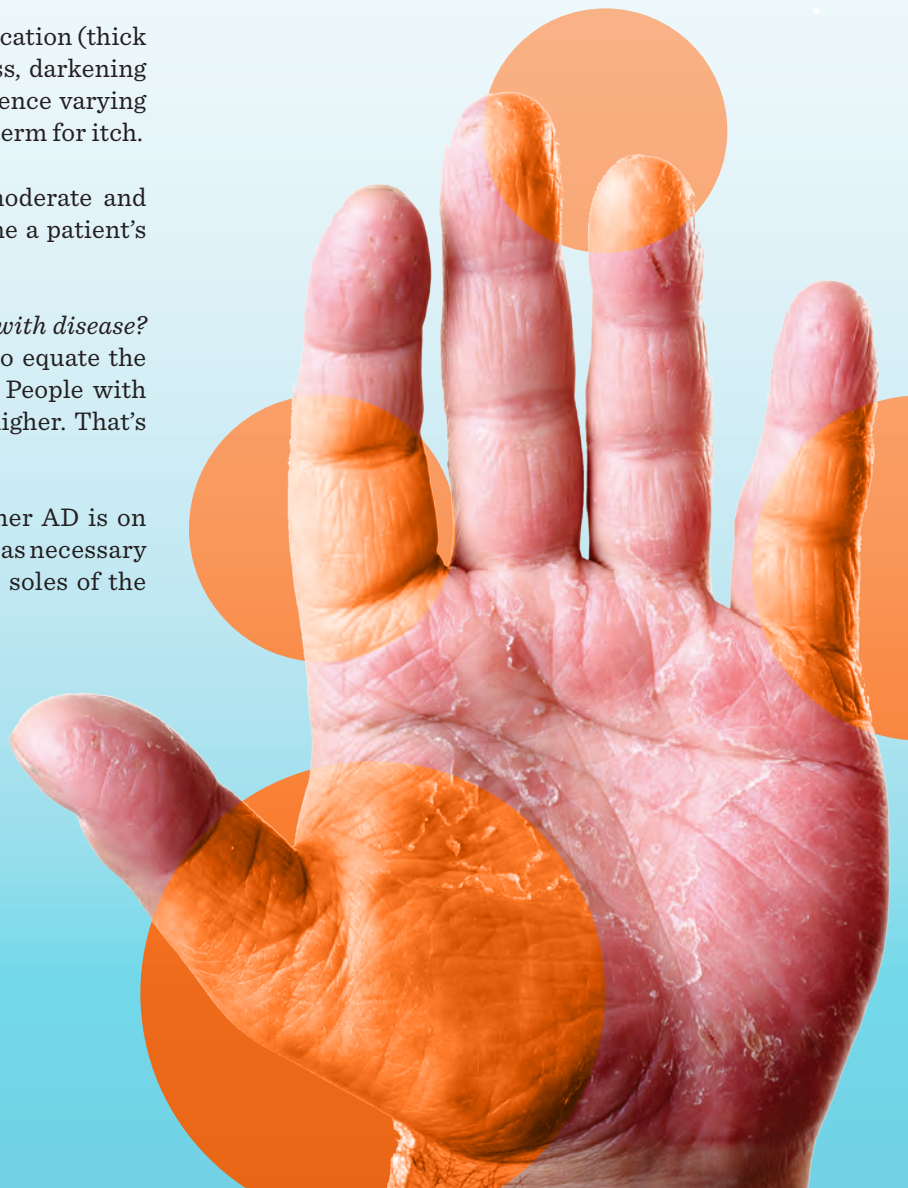
• *Where on the body does the disease appear?* Whether AD is on visible areas of the body, such as the face or neck, or areas necessary for human function, such as the palms of the hands, soles of the feet or genitals, can determine the level of severity.

• *How does AD impact the person's quality of life (QOL)?* Medical providers need to factor in whether AD negatively affects a patient's sleep quality, emotional and mental health, and ability to perform everyday activities. ►

HOW DO I KNOW IF I HAVE MODERATE TO SEVERE AD?

- ☑ Does the disease cover 10% or more of your body?
- ☑ Does the disease appear on visible areas of your body or those important for function such as your face, genitals, hands or feet?
- ☑ Does the disease significantly impair your quality of life, including sleep quality and mental health?

If you answered yes to one or more of these questions, then it's time to have a heart-to-heart with your medical provider. Proceed to Step 2.



HOW DO I KNOW IF MY TREATMENT IS FAILING?

- ☑ Do you see reoccurrence of flares regardless of severity, disease duration or short-term treatment with topical corticosteroids?
- ☑ Is there no improvement in your sleep or quality of life and your AD continues to make everyday tasks challenging?
- ☑ Are you experiencing unacceptable side effects?

If you answered yes to one or more of these questions, then it's time to explore different treatment options. Proceed to Step 3.

STEP 2:
START A SHARED DECISION-MAKING PLAN WITH YOUR DOCTOR.

It's important to remember that the state of your disease does not fall solely on the shoulders of your medical provider. This is your health and well-being on the line, and you can take ownership of that. The steering committee firmly believes that treatment of AD should be based on a concept called "shared decision-making" (SDM), a health care model in which a doctor and patient work together to set and achieve health goals and make treatment decisions.

"Patients should be appropriately informed about treatment goals and expectations, limitations and the strategy planned to reach these goals," said Lebwohl. "Their doctors should give them a realistic overview of the risks and benefits of a given therapy, taking into consideration comorbidities and other health conditions that may affect treatment choice."

Online medical resource Medscape released research in 2016 that featured data from more than 19,200 doctors in 26 specialties. Included in the report was the average amount of time doctors spend with each patient: 13-16 minutes. Learn how to get the most out of those 13-16 minutes by planning ahead.

Here is a sample list of topics to bring with you to your next medical appointment. Start with your most pressing questions in case you run out of time.

- *What are my health goals and expectations (clearer skin, less itching, better sleep)?*
- *What strategy do we have in place to reach these goals?*
- *Is my current medication succeeding or failing?*
- *What are my other treatment options?*
- *What are the risks and benefits of these treatments?*
- *What about socioeconomic factors (affordability, insurance coverage, reimbursement)?*

"Educational resources for patients and providers, including those provided by the National Eczema Association, are an important element of shared decision-making," Lebwohl said.

NEA is continuously developing web-based tools to make it easier for patients and caregivers to organize and prepare for health care appointments. Later this year, we will launch our SDM Resource Center. This will be an online portal that gives eczema patients access to a health dashboard to monitor eczema that includes checklists, decision aids and action plans to achieve better health outcomes. ►

STEP 3:
WORK WITH YOUR DOCTOR TO FIND THE RIGHT TREATMENT PLAN FOR YOU.

If the current treatment you're on doesn't effectively control your symptoms of AD or improve your QOL, perhaps you are not treating to the level of severity of your disease. Another possibility is that you may have been treating the wrong disease all along. "Patients not responding to prescribed therapies should be completely reassessed to ensure that the diagnosis of AD is correct," Boguniewicz said.

If AD is confirmed, "Patients should be educated on all available therapies, including oral agents, injectables and topical agents, before choosing a treatment," Lebwohl said. "Providers should inform patients of all their therapy options before offering reasons for recommending a certain treatment so that patients can be active participants in their own health goals."

The SC recommends doctors prescribe topical corticosteroids (TCS) daily for up to four weeks for active treatment and two to three times weekly for preventative treatment. Studies have shown that acute treatment can reduce symptoms in as few as three days, with continuing improvement over three weeks. The SC acknowledges that daily use on different lesions may be necessary to maintain control for those with severe disease.

Phototherapy is recommended by the American Academy of Dermatology (AAD) as a second-line treatment after topical therapy. Several forms of light therapy have been shown to benefit patients with moderate to severe AD, and it is low risk. However, the availability of this type of therapy in clinics, and the time required for sufficient therapy, may hinder its use.

New scientific research has uncovered the far-reaching nature of AD in the human body, with evidence that inflammation is not limited to the ►

skin but also involves other organs. As a result, drugs that can transmit their effects throughout the body (systemic treatments) can be used when patients fail to respond to topical medications. However, if drugs have widespread effects in the body, this can also mean that they cause more side effects.

Medications known as immunosuppressants (e.g. cyclosporine, methotrexate, azathioprine, mycophenolate mofetil, omalizumab, and allergen-specific immunotherapy) help to control or slow down the development of inflammation involved in AD and may control some of the symptoms.

These medications are often prescribed by physicians "off-label" because they are not approved by the U.S. Food and Drug Administration (FDA) for the treatment of AD, and the side effects associated with their use are concerning. Of these agents, the SC considers cyclosporine the most effective, although significant safety concerns often limit the length of time treatment can be tolerated, and extensive monitoring is strongly recommended.

Another option is systemic steroids. The most common systemic steroids for treating AD are prednisone and prednisolone, which are available as tablets or oral solution, and triamcinolone acetonide, which is available as an intramuscular injection.

However, the SC does not recommend treating patients with systemic steroids in most situations "because they are poorly tolerated and often exacerbate the disease when treatment is discontinued," Boguniewicz said. "We recommend systemic steroids be used with caution only for short courses in patients with severe exacerbations while maximizing topical therapy."

Then there's the biologic Dupixent (dupilumab), which was FDA approved in 2017 for treating moderate to severe AD. Biologics are genetically engineered medications that contain proteins derived from living tissues or cells cultured in a laboratory to treat diseases at the immune system level. By stopping the immune system from overreacting, dupilumab lowers inflammation and other symptoms of AD.

"Dupilumab has shown strong efficacy and safety for treatment of moderate to severe AD in adults," Lebwohl said. "Considering the safety profiles of conventional systemic therapies, which are not FDA-approved for AD treatment, it is recommended that dupilumab be used as a first-line systemic treatment in adults with moderate to severe AD that is uncontrolled by topicals."

"For over a decade, we had no new treatment options. Now, we have two safe and effective treatments available to patients, and I am excited to report that more than 65 new therapies are making their way through the treatment development pipeline," Block said. "Researchers are engaging patients in every facet of treatment development. Finally, the true impact on patients' quality of life is receiving the light and attention it deserves. There has never been a greater time to take charge of your eczema!" ✳

"For over a decade, we had no new treatment options. Now, we have two safe and effective treatments available to patients, and I am excited to report that more than 65 new therapies are making their way through the treatment development pipeline."

– Julie Block

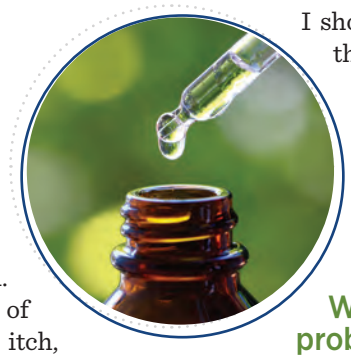
Complementary and Alternative Treatments for Eczema: Separating Fact from Fiction

If you've ever looked up "how to treat eczema" on the internet, no doubt you've seen every type of diet, herb or ointment under the sun. In a recent NEA webinar, Dr. Peter Lio cleared up the confusion by presenting those complementary and alternative eczema treatments that are shown to be effective through rigorous, scientific research. Please note that portions of this Q&A have been edited for clarity and brevity.

What natural treatments do you recommend for managing itch?

Itch is one of our most challenging symptoms, and we're always looking for new ideas to treat it. I find cooling treatments so helpful—something as simple as an ice pack placed on the affected area. Another trick is to take moisturizer and put it in the refrigerator. It soothes the skin and has a very direct anti-itch effect.

How might cryotherapy help someone with eczema?



Cryotherapy (the use of extreme cold in medical treatments) has been studied, and it does seem to help. For those who don't know what cryotherapy is, you enter a small chamber, and it sprays you with liquid nitrogen to cool your skin and body temperature down. It's pretty safe, but there have been cases of frostbite associated with it. It does help with itch, inflammation and cooling the body down. You can do cryotherapy and have some relief, but you'll have to keep going. It's not a lasting treatment. I've had patients who say it helps, and for those patients, maybe it's something we integrate into their treatment plan.

What are your thoughts on light therapy and vitamin D supplementation?

I love light therapy. It's a powerful treatment. About 60 to 70 percent of my patients have seen significant improvement with light therapy, and it's also quite safe. I mean, it's the healing power of light. It's fantastic! Talk about the most natural way to get your vitamin D levels up, which is through the skin. The downside is it can be inconvenient for a lot of people in that you have to come in two to three times a week, often traveling a long way, and it doesn't work for everyone.

You've mentioned that you recommend probiotics to all of your patients. Could you offer advice on how to go about choosing a probiotic?

I should note that I have no conflict of interest with this company or know anybody who works there—but Culturelle is what I usually recommend unless the patient has their own probiotic they prefer. I've had good results with Culturelle, and it's been studied a lot. I like that it's inexpensive and widely available, but honestly, there is no evidence on which probiotic is better.

What's the earliest age you should give probiotics to a baby?

You could start giving it to a baby within its first week of life as a liquid base probiotic–a drop in the breast milk or baby formula. A brand I like is called BioGaia. I feel they are safe in this context.

What about fermented foods?

I don't know if fermented foods make a big enough difference to be worth recommending broadly, but I have some patients who have seen improvement. I think they are helpful and an important part of a healthy diet. But I don't know if you ►

can get enough probiotics from them to get a proper digestive balance. Fermented foods support healthy bacteria, but I suggest patients take a probiotic to ultra-boost it. I do love to see people eating healthy. I like to see a plant-based diet where I can—or a paleolithic diet akin to how our ancestors used to eat, which were simple, natural, rich foods. It's hard to argue with that.

Can you share your thoughts on ayurvedic medicine and homeopathy?

There are some interesting pieces to ayurvedic medicine. The concept of using turmeric or curcumin as an anti-inflammatory both topically and orally comes from ayurvedic medicine. I think that's very exciting, and it would be interesting to see how ayurvedic might help other types of eczema. Homeopathic medicine is a compelling idea. But when you look at the actual studies, it probably doesn't work on the broad scale. Of course, there are anecdotal reports and many people swear by it, but the jury is still out for me. I think there are other things we can do to show a more reliable response.

Now for the big question you get all the time—the believed dangers of topical steroids. How might patients address this with their doctors and feel a little more secure in the decision-making process?

We're trained to use topical steroids because that's what we know works for most people. NEA is working really hard to create a whole curriculum for doctors who take care of patients with eczema to try to teach them how to properly administer steroids. The good thing is they work really great. They get things under control reliably for most patients. The bad thing is that they are not a long-term solution. They can be terrible for the skin when overused, and they may cause topical steroid withdrawal (TSW), which is a terrible thing. We do not want that.

I haven't had any patients suffer with TSW, and my big secret for that is to simply establish a treatment plan with my patient. Maybe we use the topical steroids for a brief burst to cool the inflammation down, and then we stop. What we need to do next is have a plan without using the steroids to keep the skin clear. That's why we're lucky to have some powerful new systemics and biologics. And this is where we can start to think about using things like topical B12, phototherapy, cryotherapy and different oils. ✳

JOIN US FOR WEBINAR WEDNESDAYS!

NEA Webinar Wednesdays feature world-class medical experts discussing the latest in disease management, research, treatments and related information you need to live well with eczema. Each webinar is an hour and includes time for Q&A from the audience. Register at **nationaleczema.org/nea-webinars**

Dr. Peter Lio is Assistant Professor Clinical Dermatology & Pediatrics at the Northwestern University Feinberg School of Medicine and is the Founding Director of the Chicago Integrative Eczema Center Medical Dermatology Associates of Chicago. He also serves on NEA's Board of Directors and our Scientific Advisory Committee.

AD IT'S TIME TO SPEAK UP

Understand AD is a public awareness program led by famed screenwriter Peter Moffat to shed light on this poorly understood disease.

BY MARGARET W. CRANE

For people with moderate to severe atopic dermatitis (AD)—the most common, but difficult-to-treat type of eczema—home may be where the heart is, but it's also full of triggers.

No matter how many times you vacuum the living room, pet dander still lurks in the air. You want your clothes to be clean but worry about how your skin will react to the harsh detergents in your laundry room. And in the wintertime, the dry indoor air can wreak havoc on your skin. In other words, if you're living with AD, it can feel as though there is no escaping this disease—not even in the comfort of your own home. ►

On Oct. 26, 2017, a group convened by the National Eczema Association (NEA) took a tour of a movie set in New York City designed to simulate a Manhattan apartment. The video shot on a similar set is the centerpiece of the awareness program titled Understand AD: A Day in the Life.

Host Peter Moffat, the eczema community's newest champion and the man behind BBC's "Criminal Justice," which inspired the popular HBO mini-series "The Night Of," scripted the video depiction of daily life inside the home for people with AD.

Leading his guests from room to room, Moffat drew the group's attention to small, revealing clues such as a shelf containing a spectacular number of lotions and ointments and a big jug of bleach by the bathtub.

"Newcomers to AD report being shocked by the sight of the actress in our video pouring bleach into her bathwater and by another scene of her scratching her inflamed skin with a hairbrush," he said. "Good! We want to shock people out of their complacency."

Moffat, who has had moderate to severe AD since childhood, is passionate about clearing up common misunderstandings, reducing stigma and fostering empathy for people with the disease. He has already been advancing these goals indirectly through "Criminal Justice" and its American counterpart "The Night Of," in which John Turturro plays a down-on-his-luck lawyer with eczema (see "The itch to write" in the Winter 2017 issue of *Eczema Matters*).

Now, he feels the time is right to bring AD out of the shadows, especially in light of the phenomenal advancements happening in the understanding of the mechanisms of the AD, and the new treatments for it.

Moffat joined forces with Sanofi US and Regeneron Pharmaceuticals, Inc.—the sponsors of Understand AD—and with NEA in a program to raise public awareness.

NEA President and CEO Julie Block, who attended the Oct. 26 event, sees the program as a watershed moment. "We've worked hard to educate, motivate and inspire our own community. But we've never engaged the public in this way before. ►

"The new program is doing just that, and it's also encouraging people who have been suffering in silence for years to come out of hiding and consult a dermatologist, join an online community and become 'eczema wise.' It's a time of real hope!"

Starting a new conversation

For those with the disease, hearing people refer to eczema as "just a skin condition" is among the most frustrating in a long list of misconceptions, second only to the false belief that it's contagious. In reality, eczema is a serious disease that affects approximately 30 million people in the U.S., with 1.6 million experiencing moderate to severe AD that is uncontrolled by topical treatments.

As the creative force behind the Understand AD program, Moffat said he wants to start a conversation that will shake up the status quo so that no one will continue to underestimate the disease or stigmatize the people who have it. The conversation he envisions will change minds and hearts by engaging the media, schools, the health care establishment, our elected officials and the public at large.

During an hour-long exchange following the tour, several members of the eczema community shared their stories, each one unique. For instance, Mark Erb, a retired IT professional who lives a couple of miles from the ocean in Toms River, New Jersey, has had AD all his life.

"When I was a kid, I had a big patch of eczema on my forehead," he said. "Other kids would run away from me, shouting 'monster!' We tried calamine lotion, A&D cream and all kinds of other topical treatments, but nothing worked. I was in my thirties before I started doing steroid treatments.

"I became more and more of a loner as the years went by, even though I'm basically very social," Erb continued. Self-consciousness became his constant companion. "I'd always put my hands in my pockets or underneath the table when out with friends."

Stress has been a major driver of Erb's disease. And stress, according to Sarah O'Donnell, was a major culprit in her father, Don Young's late-onset AD as well. She emphasized the word "was," because Young, now in his eighties, has experienced a dramatic lessening of symptoms—a fact he credits mainly to retirement.

Young had an exceptionally severe case, with angry rashes covering his entire face and body. Soon after his first outbreak at age 55, a series of Staphylococcus aureus (or staph) infections landed him in the hospital for several months.

"But his fighting spirit got him through that crisis," O'Donnell said, referring not only to his character but to the qualities of energy and determination that made him so successful during his career as a trial lawyer. "There's no doubt in my mind that frequent travel and having to argue high-profile cases were exacerbating factors in his AD.

"My father is an exceptional role model," she added. "He never complains, and he never gives up. As a member of NEA's Board of Directors, he's excited about the new approaches to treating AD, which have been a long time coming. At the same time, he's concerned about whether people are getting adequate medical care.

"Our whole family is totally committed to NEA's advocacy efforts," O'Donnell said. "We've got to do everything possible ►

to make sure treatments are affordable and available to all the people who need them."

Ivy Chazen says her son Jake is one of the lucky ones. After years of debilitating AD, the young man entered a clinical trial. That was two years ago. Within a month, Chazen reported, his life changed dramatically.

"Before, he'd take burning hot showers four times a night," she said. "That was the only relief he could get, even though he was told not to do it. He never slept. Now, we all sleep through the night."

The greatest gift of all, she said, is not having to see him suffer. "I thought I'd develop a tic from turning my head to watch him all the time." Still, for this devoted parent, the sense of helplessness described by so many members of eczema families has been relieved, and she sleeps better knowing the understanding of the disease grows every day.

The devil is in the details

The conversation Moffat has started is like a tapestry woven out of many disparate threads. The larger story is made up of countless small details that burden the lives of people with AD.

"Having AD is hard work," Moffat said. "For one, you're always trying to hide it. You wear dark clothes to camouflage the blood stains and long sleeves to hide your inflamed skin."

It's hard enough to have the disease, but it's doubly hard to have to worry all the time about other people's negative reactions to it, he added. "Why even feel the need to cover up?" Moffat asked. "We shouldn't have to. People become socially isolated, depressed and lonely, and they're made lonelier by the fact that the world doesn't understand." ►

And the itch! As Erb described, "Sometimes the itch was so bad I couldn't think. The only thing you can think about is the itch."

Moffat doesn't shy away from telling it like it is. A former trial attorney in the U.K. who is a master of vivid language in the best British tradition, he uses his verbal gifts to penetrate the fog of human ignorance and indifference.

Moffat encourages all of us in the eczema community to follow suit and tell our stories openly and honestly, sparing no detail no matter how shocking.

"Let's be brave enough to give people images of what it's really like when the disease gets bad," he said. "Here's one of mine: Sometimes the skin on my feet looks like mashed up cornflakes with blood and pus mixed in.

"I don't wish anyone to suffer in silence," he said. Thanks to Moffat, the sponsors of the Understand AD campaign and NEA, the time for silence is over. ✳

For more information about the Understand AD: A Day in the Life program, visit www.UnderstandAD.com.

"I DON'T WISH ANYONE TO SUFFER IN SILENCE"

– Peter Moffat

Photos courtesy of Fleur Losfeld

WHAT'S HAPPENING AT THE NATIONAL ECZEMA ASSOCIATION

By Karey Gauthier

Our portal to finding the perfect provider

Over the last two years, the National Eczema Association has conducted several surveys to assess the needs and satisfaction of our community. Our patient satisfaction survey revealed that 86 percent of people with atopic dermatitis are not satisfied with their treatments.

Survey respondents also indicated that they often cycle through several health care providers before finding one that is not only knowledgeable in treating eczema, but someone with whom they can truly partner.

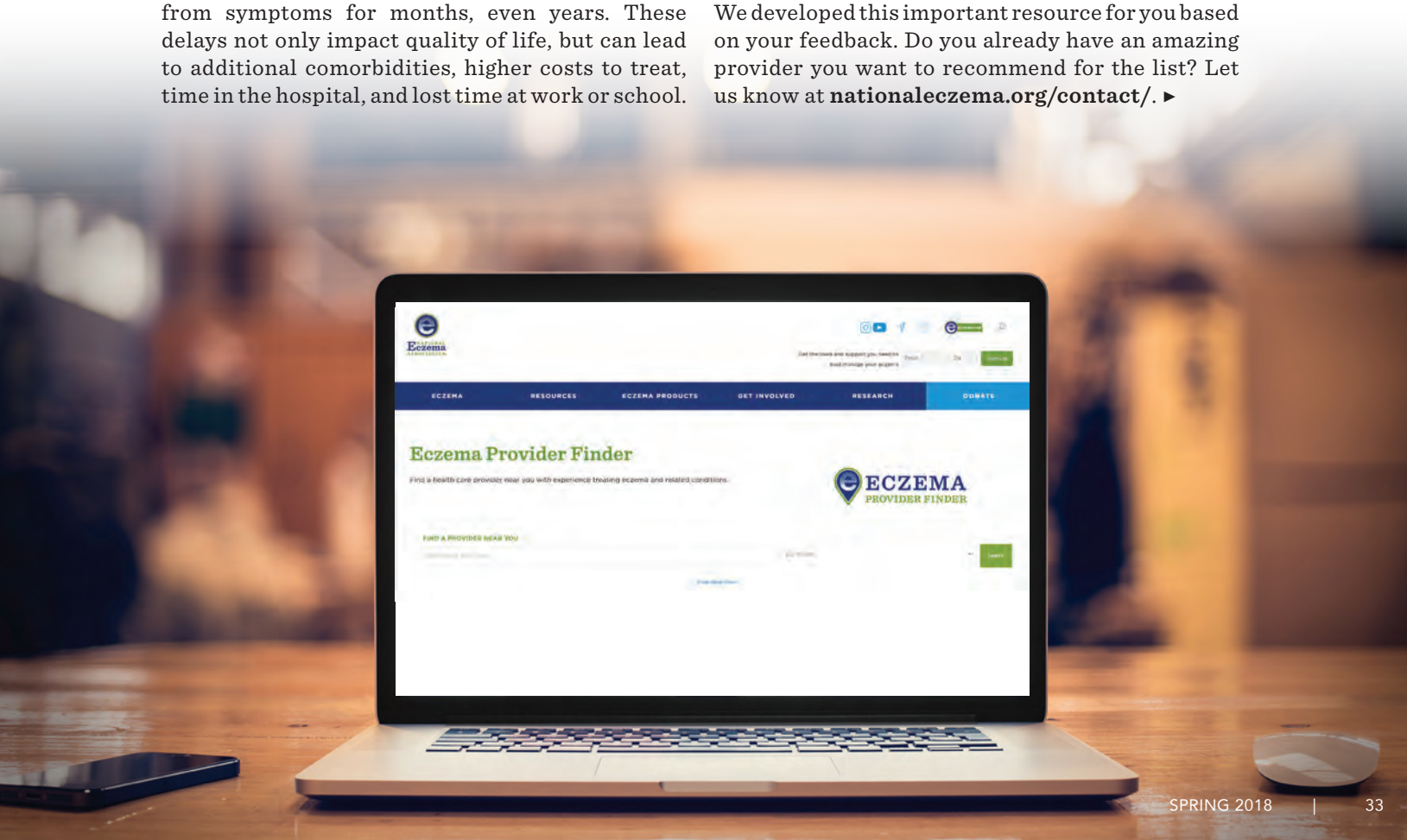
This search for the right provider can delay relief from symptoms for months, even years. These delays not only impact quality of life, but can lead to additional comorbidities, higher costs to treat, time in the hospital, and lost time at work or school.

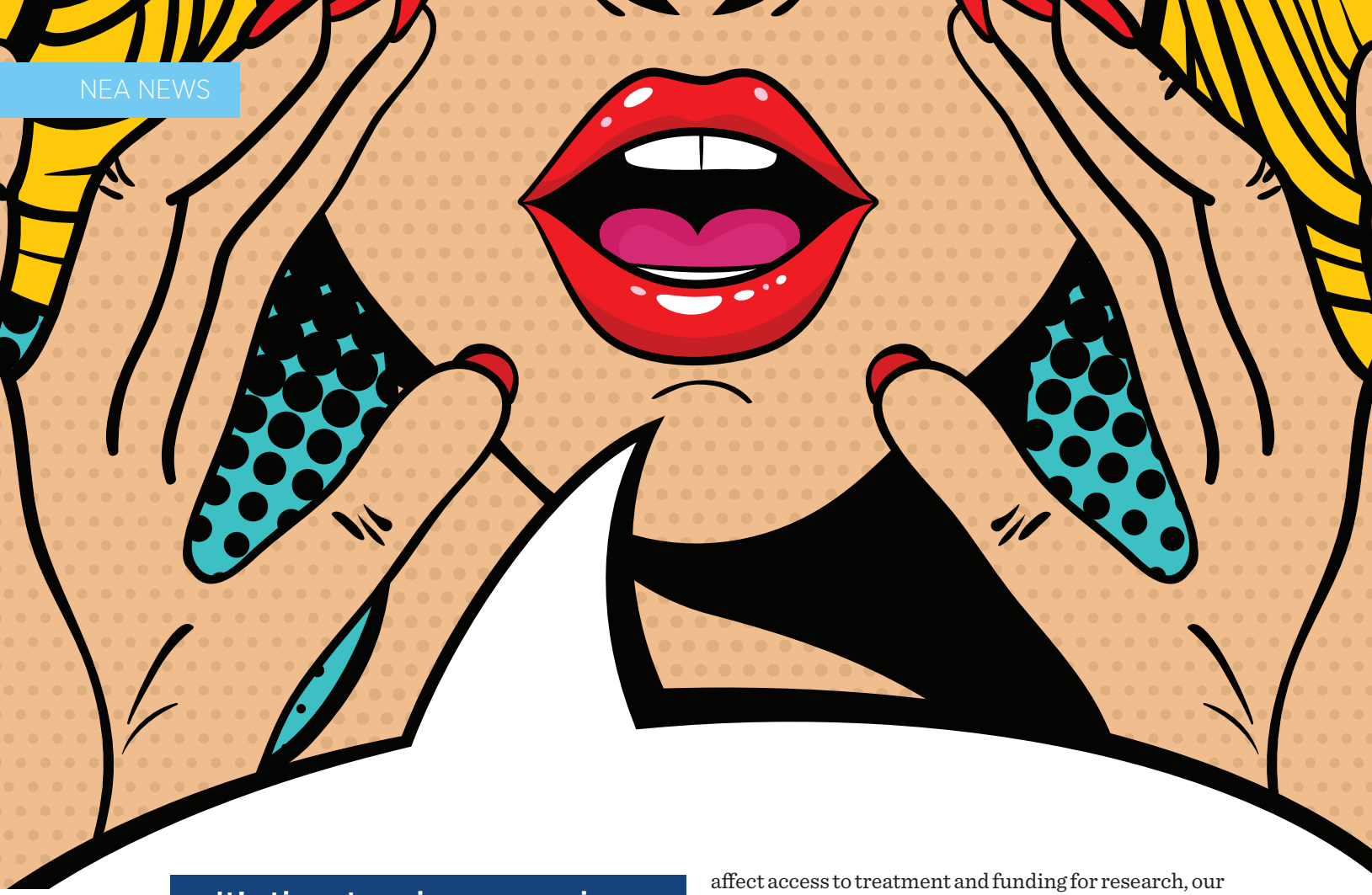
You spoke. We listened.

We are pleased to announce the launch of our free online health care provider directory. The Eczema Provider Finder (**EczemaProviderFinder.org**) is designed to help our patient community locate providers in their area who are experts in treating eczema.

The Eczema Provider Finder sits prominently on our website, **nationaleczema.org**, and is searchable by zip code, specialty and treatments offered. Included among the directory are dermatologists, allergists, mental health specialists, naturopaths, family medicine practitioners and pediatricians.

We developed this important resource for you based on your feedback. Do you already have an amazing provider you want to recommend for the list? Let us know at **nationaleczema.org/contact/**. ►





It's time to raise your voice

In September 2017, NEA launched its advocacy program, Raise Your Voice! Throughout the fall of 2017, we asked our community to email their representatives to let them know that eczema is important to them.

Hundreds of emails were sent across the United States to representatives at the federal and state levels. By raising awareness of eczema as a serious public health issue, we empower the community and advance policy issues impacting access to care and research funding.

NEA supports initiatives that increase the amount of government funding for eczema research and opposes initiatives that place barriers between patients and the treatments prescribed to them by their doctors, such as irrational step therapy and prior authorization guidelines, high out-of-pocket costs, and restricted or limited networks of providers. For a full list of NEA's policy positions, please visit **nationaleczema.org/advocacy-priorities**.

In addition to taking a stand on policy issues that affect access to treatment and funding for research, our advocates are also raising awareness by having their state declare October as Eczema Awareness Month.

Thanks to the participation in the Raise Your Voice campaign, seven states are already considering October 2018 as Eczema Awareness Month. Based on the work of nine patient advocates, legislation will be introduced in New York, Georgia, Tennessee, Illinois, California, Louisiana and Michigan.

Millions of Americans have eczema. Millions of Americans cope with this painful, unpredictable disease that starts with the immune system and ends with itchy, red, rashy skin. Millions of Americans with eczema spend their days beating back flares and avoiding triggers, trying to reduce the impact of this disease on every part of their lives, wanting relief.

Are you or someone you love one of those millions?

Health is a human right. Raise your voice to support people with eczema! Learn more about becoming a NEA grassroots advocate at **nationaleczema.org/get-involved/advocacy**. ►

Webinar Wednesdays are a win

In early 2017, NEA launched its Webinar Wednesday series. In six captivating online sessions, we discussed biologic treatments, pediatric eczema, topical treatments, complementary and alternative treatments, the mind/body connection in eczema and "Eczema 101" for the newly diagnosed.

With more than 6,000 registrants logging in to join the conversation, more questions were asked than could possibly be answered by our medical experts. But suffice it to say, there was something new to learn for everyone.

This year, we are continuing the program. The topics for 2018 include new treatments in development, managing itch, all about eczema triggers, comorbidities, sleep and eczema, how food impacts your eczema, and more. Make sure you receive our online newsletter to receive the full list!

Each webinar is recorded and available for viewing on the NEA website at **nationaleczema.org/resources/eczema-webinars/**. That is also where you will find the registration for upcoming webinars. Join us live and share your questions for the experts.

Have a topic you wish we would cover? Let us know at **nationaleczema.org/contact/**.

Smoothing out your product trial and error

Finding the right product can be a lengthy process of trial and error. NEA created the Seal of Acceptance™ program to help shorten that process for you.

Products eligible for the NEA Seal of Acceptance™ are those that have been created or intended for use by people with eczema or severe sensitive skin conditions and that have satisfied the NEA Seal of Acceptance™ criteria.

The NEA Seal of Acceptance™ criteria includes a list of ingredients and contents that should be avoided because they contain known irritants. Depending on the product, the NEA Seal of Acceptance™ Review Panel considers testing data on sensitivity, safety and toxicity, as well as the ingredients, content and formulation data.

We are thrilled to announce the coming launch of our new and improved product directory, EczemaProducts.org. In the searchable directory you can find more than 220 NEA Seal of Acceptance™ products. You can sort by brand, product type, and even exclude ingredients that you know you are sensitive to. Are you a parent looking for a product for your child? Sort by age to find age-appropriate products.

New products are awarded the NEA Seal of Acceptance™ regularly, so check back often! ✳

ITCHING LEADS TO *inspiration*

A teen living with eczema for most of her life explains what inspired her to research causes behind this disease and its prevalence among children.

BY ANGEL NUGROHO

I've had eczema for as long as I can remember. It's always been fairly mild, and in some cases, my skin nearly cleared up. But inevitably a humid day or unpredictable sweating would set it off again.

My eczema felt like a never-ending cycle; just thinking about not scratching made me itch more. As I grow older and begin to graduate high school, it often seems like a problem I'll never be rid of.

Throughout elementary school, fellow students, and sometimes even teachers, would stare at the cuts and bruises on my arms. I remember kids always coming up, pointing right at my reddish, scabbed-over skin, and exclaiming "What's that! That's so gross."

As a 5-year-old who couldn't even pronounce "eczema" properly let alone explain it to others, I was usually at a loss for words. I mostly mumbled, "I've always had it."

One time on a hike during summer camp, a counselor grabbed my arm and screamed that I had gotten into the poison ivy. I quickly explained to her that it was just a condition I already had. I even had to repeat that it wasn't contagious until she calmed down.

I constantly felt alienated from my peers, unable to enjoy hot recess hours or pool swims without scratching away at my skin later.

My parents figured I would eventually "grow out of it." As an elementary schooler, I had eczema, was underweight, asthmatic and allergic to peanuts and shellfish. As a high schooler, I continue to have eczema and am still allergic to peanuts and shellfish.

It seems there are only so many problems time chooses to solve. And when I began playing on the women's golf team, the long hours in the sun made my eczema flare up constantly. Practicing in the summer for the fall season was unbearable, while many lotions and steroid creams only made me itch more. Fighting my eczema continues to be a struggle for me and my family.

Despite eczema being a burden for myself and others like me, it later became my motivation for writing my graduation research paper. At my school, every student during their junior and senior years of high school has to write a thesis paper, do a service connected to their topic and present their research to a board of teachers.

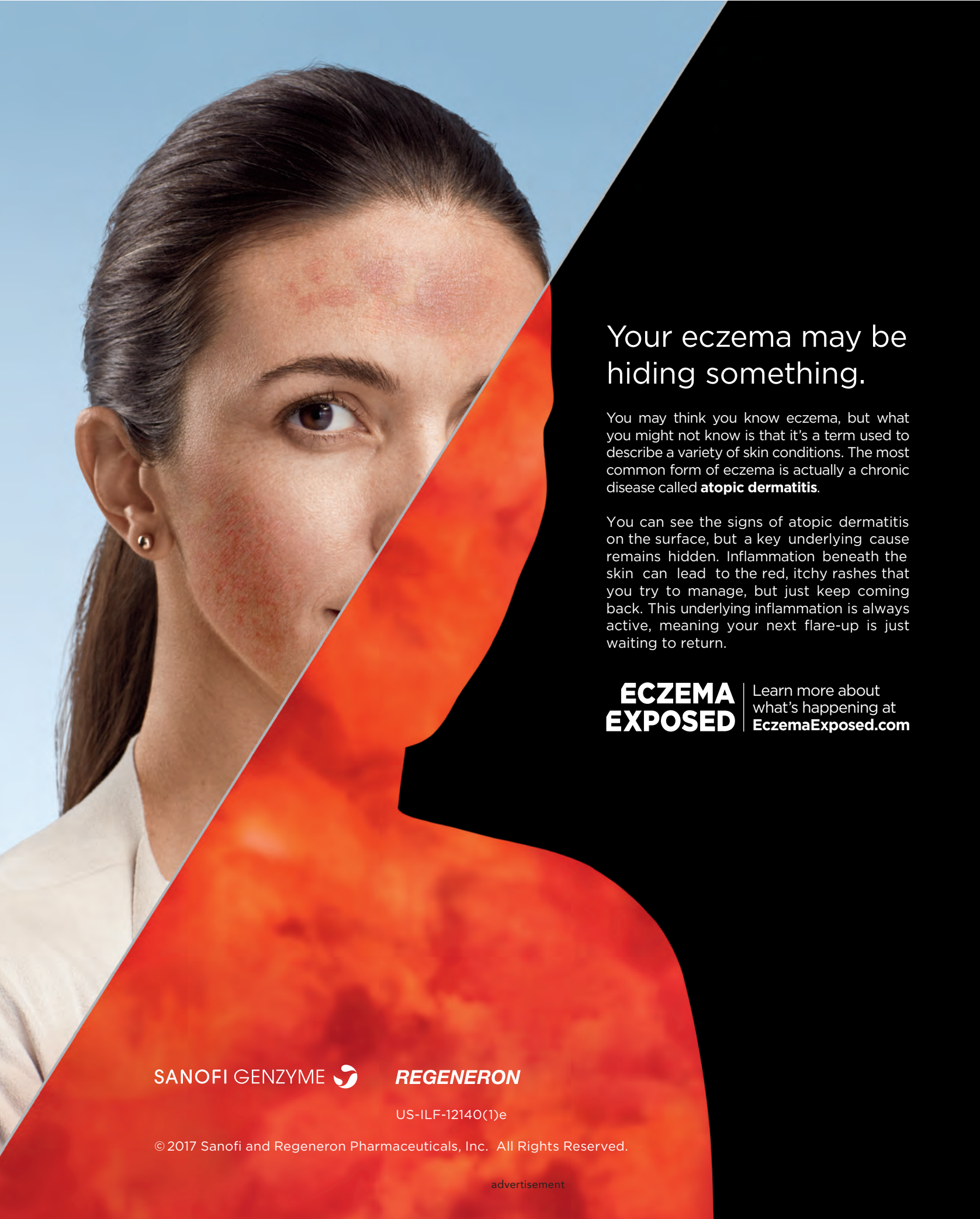
Because I would be researching this subject for months, I wanted to choose a topic that I really cared about. For most of my life, I never knew what exactly caused eczema or why I have it. There was so much about my own health that I never understood but now had the perfect opportunity to educate myself.

I learned that eczema is often connected to other inflammatory conditions like asthma and allergies. I also realized the suffering that children with eczema must go through. This inspired me to write about the possible causes of eczema prevalence in children.

Just as I began looking into the world of eczema, I discovered the burgeoning study of the human-bacteria relationship and its impact on eczema. One's microbiome could be as essential as one's DNA, affecting processes like eczema prevention.

Researching eczema also brought me to the National Eczema Association, where I was able to volunteer at their Leaders in Eczema One-Day Forum. I watched eczema patients, doctors and researchers all come together to support eczema exploration.

My eczema experience has been tumultuous, like many others. And though I still fight back against my eczema symptoms every day, living with this disease has been something that has also brought me forward. ✳


Your eczema may be hiding something.
You may think you know eczema, but what you might not know is that it's a term used to describe a variety of skin conditions. The most common form of eczema is actually a chronic disease called **atopic dermatitis**.
You can see the signs of atopic dermatitis on the surface, but a key underlying cause remains hidden. Inflammation beneath the skin can lead to the red, itchy rashes that you try to manage, but just keep coming back. This underlying inflammation is always active, meaning your next flare-up is just waiting to return.
ECZEMA EXPOSED
Learn more about what's happening at EczemaExposed.com
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