

Studies show that short-chain fatty acids (SCFAs) are signaling factors in the gut-skin axis and can alleviate skin inflammation. Recent studies have shown that SCFAs mitigate inflammation by regulating cytokine production by immune cells such as neutrophils, macrophages, dendritic cells (DCs), and T cells. Short-chain fatty acids can affect cellular metabolism by promoting -oxidation of mitochondrial fatty acids (FAO). Skin barrier dysfunction is a common pathological feature of inflammatory skin diseases. Recent studies have shown that SCFAs can improve the skin barrier and alleviate skin inflammation by altering metabolism and mitochondrial function.

Butyrate is metabolized by epidermal keratinocytes, which in turn enhances the synthesis of keratinocytederived long-chain fatty acids (LCFAs) and very long-chain fatty acids (VLCFAs), a key event in the subsequent generation of ceramides. which are essential for the skin. Spontaneous chronic urticaria (CSU) is a type of chronic inflammatory dermatosis driven predominantly by mast cells.

Alterations in intestinal metabolites may exacerbate the inflammatory response and immune dysfunction during the pathogenesis of CSU. Furthermore, reduced SCFA accumulation due to an imbalance in intestinal flora may play an important role in the pathogenesis of CSU. Given the close correlation between SCFA expression and the occurrence of skin inflammation, SCFAs could be used to detect therapeutic efficacy and predict the prognosis of inflammatory skin diseases.

www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2022... (2023)

Leaky gut syndrome and gut health issues can lead to histamine intolerance, oxalate intolerance, and salicylate intolerance. On the other hand, the buildup of histamine, oxalate, and salicylate causes increased inflammation, gut health issues, and leaky gut that lead to inflammation and health issues including in the skin. Histamine is a chemical responsible for a multitude of functions in the body, including eliminating allergens as part of the immune response, communicating with the brain, and activating the release of stomach acid to aid digestion. While histamine is essential for health, too much histamine can create many problems.

Histamine intolerance means you have too much histamine, which can lead to a variety of health problems. Histamine intolerance affects the entire body, including the gut, brain, lungs, cardiovascular system, and hormonal health. Histamine intolerance can manifest itself in a variety of ways, including hormonal problems, headaches, skin problems, digestive problems, sleep disturbances, bladder problems, anxiety, rapid heart rate, seasonal allergies, and more. Histamine intolerance can present itself in a variety of ways.

The symptoms of histamine intolerance can often mimic other health problems, making them easy to misdiagnose or miss. Symptoms of histamine intolerance include: 1) Diarrhea 2) Migraines and headaches 3) Eczema, psoriasis and other skin problems. 4) Blush 5) Hives 6) Tingling sensations on the skin or scalp. 7) Congestion or runny nose 8) Low blood pressure or hypertension 9) Tachycardia or racing heart 10) Fatigue 11) Asthma attacks 12) Abnormal menstrual cycle and menstrual problems. 13) Vertigo 14) Anxiety ajcn.nutrition.org/.../S0002-9165 (23)28053-3/fulltext

Salicylates are a group of chemicals. They are derived from salicylic acid. Naturally, they are found in plant foods. Foods and products high in salicylates do not cause problems for everyone, but for some they can cause salicylate intolerance and subsequent symptoms and health problems. In a healthy body, the liver helps detoxify excess salicylates; however, sluggish liver function may increase the risk of salicylate intolerance. Salicylates work similarly to oxalates. If your body reaches a high salicylate load and your body cannot break down all the excess salicylates. Excess salicylates can also cause overproduction of leukotrienes. Leukotrienes are inflammatory mediators that can increase the risk of a variety of health problems, such as asthma and inflammatory bowel disease.

This can also lead to inhibition of cyclooxygenase production. Cyclooxygenase is an enzyme that regulates the production of leukotrienes. Excess salicylates function very similarly in the body to excess oxalates. They can lead to inflammation, a compromised immune system, oxidative stress, poor mitochondrial function, cellular and tissue damage, and histamine release (more on this soon!). This can result in a list of symptoms and health problems including hives and skin problems. In the link. pubmed.ncbi.nlm.nih.gov/21879102 ---- pubmed.ncbi.nlm.nih.gov/16835707 .-- pubmed.ncbi.nlm.nih.gov/14749606

david m_1

IT is quite disappointing that OXALATE is not mentioned in this article. OXALATE is what causes itching and eczema in many people including me. The FIRST thing anyone should try who is suffering with eczema or itching is a low oxalate diet. Sally Nortons book "Toxic Superfoods" is a very good resource. Common "healthy" foods that are high oxalate include: almonds, sweet potatoes, spinach, swiss chard, beet greens, raspberries, buckwheat, beer, and cacao powder. But there are many others and it can be very subtle and hard to pinpoint.

Note that detoxing from oxalates can be a long frustrating difficult process - Sallys book helps to explain this quite well and what to expect. I have heard Dr. Mercola talk about his own battle with oxalate and itchy rashes in consuming raw carrot juice. Dr. Mercola has stated that he had a painful itchy rash for years and could not get rid of it until he finally pinpointed high oxalate content of raw carrot juice and when the stopped the carrot juice the rash cleared up. I wish he would have discussed that in this article.

Bottom line is that most eczema and itching problems come from the DIET, which is also the most important and influential dictator of a healthy microbiome. And the most common and likely culprit in the diet is high oxalate foods. In addition, Histamine and mast cell activation disorder issues are also often involved with skin/itching issues and also linked to the DIET. Be aware that many probiotics and fermented foods are high in histamine and will make the problem worse. There are also low histamine probiotics and fermented foods.

Almond

The emunctories (organs of elimination include the kidney, colon and lung. When these are overloaded or blocked, the final avenue of excretion is thru the skin. Toxicity is often a cause of rashes. Toxicity can result from products created within the body (such as hormonal excesses or imbalances), substances ingested or exposures to external stuff. Even substances considered safe for the general population can be toxic due to individual uniqueness. I was taught that the first order in any illnesses that are not immediately life-threatening (requiring medical "heroics") should be "to open the bowels"... esp. for infants. However, be aware, that, detox must proceed at a measured pace so as not to overload the bloodstream with more toxins at a time than the organs can safely eliminate. In some cases, the monitoring of an experienced medical practitioner and testing is advisable. That may involves more than I can briefly cover.

Posted On 03/04/2024

Almond

Also, who knows what diseases and parasites are crossing a wide-open border? There is no health screening. Illegals are loaded onto buses and trains to distant points before being released into the general population and children enrolled in schools where illnesses are easily spread. This is not just "America's problem" in the modern world where trade and travel cross many borders. All nations should stop health risks at their borders.

Posted On 03/04/2024

stoneharbor

Right, Almond. Thanks for pointing out that elimination of toxins from the skin is a final, though often insufficient method of toxin removal if the other route have already been compromised. I've read this is also a primary cause of psoriasis: the need to remove toxins that could not be eliminated otherwise.

Almond

stoneharbor and all... A better solution when this occurs would be to, first slow the detox process to a manageable pace if the source can be identified and controlled. At the same time, support the epithelial tissue both with supplements and external preparations. If the rash is localized, many natural substances can be applied as demulcent poultices that also have a "drawing" property to open the skin and release toxins. Some are common vegetable preparations. There is too much complexity to explain briefly. However, I will mention that my research has led me to realizing the importance of first balancing hormones using natural therapies and then using seabuckthorn oil as part of a final maintenance regimen.

This takes considerable self-experimentation to get the exact dose needed. I would initially alternate therapies as there is much instability in the beginning. I use a burn I received as a child as an indicator. When I have achieved proper fat and hormonal metabolism in addition to detox, the discoloration from the burn is no longer visible. If I need to pay more attention to my health, the burn returns and darkens. Presently, it is not visible. : -) A bit of humor... this is also how I cured my case of eczema that appeared shortly before I was diagnosed with cancer and had not realized this was due to toxic exposures earlier in my life.

The dermatologist I saw told me it was incurable an I had to learn to live with it. (Not!) He sympathized and said he also suffered from eczema. I wondered why I was seeing a doctor who could not cure himself. After I cured myself, I asked him if he wanted to learn my protocol. He maintained that a cure was impossible because that was what he was taught in medical school. I never filled his prescription, but left it hanging on my calendar (Feb.) to remind me of the idiocy of some one still itching and scratching because of a closed mind. I have not had a recurrence in about 30 years so assume cure really is possible?

ianmac

You say there is no cure for eczema. Several decades ago, a friend told me that her teenage daughter had had eczema since a small child, but it was getting worse, and she was allergic to Aloe vera. So, I made up an ointment with comfrey from my garden. I forget what fat I used for the ointment, but I think it was before I discovered coconut oil. To my great surprise, the report was that the eczema disappeared after half an hour AND DID NOT RETURN. I had been expecting my ointment to soothe the itch for an hour or two - but a complete cure was amazing. Australia banned the use of comfrey shortly after that because it worked too well. They said that another plant in the same family had caused a death. That is like banning potatoes because they are in the same family as deadly nightshade!

Posted On 03/04/2024

bchristine

ianmac: I used to use a gentle organic baby lotion on my skin that contained "comfrey", but then read that comfrey was toxic. Do you have any more information on it? I am in the US (unfortunately). Thank you in advance-

ianmac

I hadn't realized how successful the campaign against Comfrey had been. It must be about thirty or forty years since they decided to suppress it. It is NOT toxic. The leaves are about a foot and a half long and four inches across and I used to have it in my garden and eat two leaves raw each day. It's common name was KNITBONE because it did knit bones, but it was also good for other healing that conventional medicine couldn't handle - such as RODENT ULCERS. I used to have a book about it, but my library is on the other side of the world. Big Pharma couldn't find anything against it, but they couldn't handle the competition, so the pointed out that a plant in the same family is toxic. Comfrey is NOT toxic. I just checked, and the lie about it being toxic must have been abandoned. Pub Med Central has only good things to say about it, though it does not mention its main use for knitting bones. www.ncbi.nlm.nih.gov/.../PMC3491633

Posted On 03/04/2024

emj69036

@bchristine: I second ianmac in his reply that comfrey is a fantastic herb for healing all sorts of things - EXCEPT for DEEP PUNCTURE wounds (or dirty wounds) because the surface of the wound could heal faster than the inner wound and cause infection. I also grow/prize comfrey, widely recognized for at least 10 different medicinal uses. Internal use is debated, as in high doses it may cause liver damage. Veterinarian/herbalist/naturopath Dr. Patrick Jones claims it can be used in small doses for GI tract inflammation, as an expectorant, and to help with bronchitis. Others cite its benefits for sore muscles and arthritis, to diminish scars, sooth an irritated urinary system, and in a Sitz bath for inflammation, hemorrhoids, postpartum tears and post-surgery recovery. It's one of Doc Jones' top 5 medicinal herbs. For even more about comfrey, go to YouTube and search "homegrown herbalist comfrey." Ianmac explains the controversy over internal use.

MelFlip

@davevarga after getting Covid for a second time, I too had excessive itching. I developed histamine intolerance and had to cut out all high histamine and high oxalate foods. Most people including many doctors don't know about this. So are suffering after a stressful event and don't know why. I figured it out, thankfully- but not because a medical professional helped me. It took me a year and a half of miserable itching from head to toe to drive me to find groups of people on the internet with HI who know about high HI and high ox food.

Posted On 03/04/2024

davevarga

Thanks for the heads up on histamine

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Posted On 03/04/2024

Hea8996

I have had severe eczema since I was a child of 5-6-7 years old. Back then it was on my feet - almost lost. a toe from the skin peeling off. They didn't know what it was then. Now I have confirmed it. Recently I had severe eczema on my hands. I found a miracle in the celery juice system from the Medical Medium - that combination of celery juice along with certain food restrictions completely cleared it up. I would recommend reading the Medical Medium's book, the Celery one, and following that.

davevarga

About skin scratching. Yeah, 40 years ago, I had eczema really bad, and had it quite intensely in 2 spots on my body. Then it went away for reasons I have no idea of. For the last year I am on a specific Whole Foods diet to address, certain health issues. Then a few months ago I noticed I was scratching on large swaths of my body. Bottom line, I found I was eating foods with a lot of oxalates in it and that was the cause of me needing to scratch kind of all over. FYI For starters, Spinach, Beet greens, & Swiss Chard are crazy full of oxalates.

Posted On 03/04/2024

ragus

I checked out foods high in nickel a long time ago, and when I saw the high oxalate foods, I noticed an almost complete overlap between them.

Posted On 03/04/2024

karmana

I have learned to love arugula, lower in oxalates. Good cooked or raw. Also, a few drops of MCT oil in the bath.

Posted On 03/04/2024

grulla

Here s a convenient oxalate chart; www.stjoes.ca/patients-visitors/patient-education/patient-education-k-.. Cabbage has always been my favorite go-to-green that's low in oxalates.

bchristine

Thanks for the Oxalate Chart Grulla ... although there are some "questionable" foods listed like Cheerios - yikes! The whole foods list is helpful though;)

Posted On 03/04/2024

Guillermou

Too much oxalate can lead to oxalate intolerance and subsequent health problems. One of the most common problems that excess oxalate can cause is kidney stones. However, it can lead to a number of other problems. In a healthy body, Oxalobacter formigenes and Lactobacillus are there to act as oxalate-degrading bacteria. But if you have compromised gut flora due to a low-nutrient diet, nutrient deficiencies, antibiotic use, genetic mutations, liver or kidney problems, or chronic stress, your body will have a difficult time removing oxalates properly. If you eat too many foods high in oxalates, it can lead to a buildup of oxalates followed by a list of symptoms and health consequences.

Excess oxalates and the body's inability to handle them can lead to mineral malabsorption, inflammation, a compromised immune system, oxidative stress, poor mitochondrial function, cellular and tissue damage, and histamine release. This can cause a variety of symptoms and health problems (8). Symptoms of excess oxalates may include: 1) Chronic pain 2) Joint pain and arthritis. 3) Muscle pain and burning. 4) Fibromyalgia 5) Interstitial cystitis 6) Kidney stones 7) Urinary pain and irritation of the bladder/urethra. 8) Headaches and migraines 9) Itchy skin, rashes and skin problems.

10) Allergies 11) Candida 12) Digestive problems 13) Insomnia and sleeping problems. 14) Bone loss and weakening of teeth. 15) Mineral deficiencies There are two types of oxalates your body can encounter: endogenous and exogenous. Endogenous oxalates come from the inside. Your body's ability to create oxalates depends on your genetics and nutritional deficiencies. Vitamin B1 and B6 deficiencies can increase oxalate production, so it is very important to reduce the risk of vitamin B deficiencies. www.pkdiet.com/.../oxalate%20lists.pdf

gup5336

"They Omega 3s are immunosuppressive! They knock out your white blood cell function. And the oxidative breakdown products that are, what is causing the damage, and that suppression of the immune system. If you're killing your white blood cells, during, a several month period. They can have an anti-inflammatory function. Eventually, you're going to want to have some living, white blood cells. And even at the expense of having inflammation, the long-range effect is that you've weakened your immune system." Ray Peat. Also see graph in: www.youtube.com/watch To read more about experiment see:

www.amazon.ca/Fatburn-Fix-Great-Weight-Using-ebook/dp/B07GDDXV76/ref=t... page 83 on how the this determination was made. See also: Stop taking fish oil pills www.armstrongsisters.com/.../stop-taking-fish-oil-pills . See also: www.forefronthealth.com/fish-oil-and-heart-disease

Posted On 03/04/2024

lma31439

My eczema is triggered by GMOs and pesticides. When I switched to Non GMOs and organic, my skin cleared up. Even shampoos and toothpaste all organic.

Posted On 03/04/2024

Momtad

Another cause if severe itching which I discovered was my mother's problem was diet soda. She went through gallons of lotion. I suggested she quit drinking diet soda. She insisted that wasn't it. After a few years, she quietly stopped drinking diet soda, and surprise, surprise, no more itching!

ragus

Injecting highly toxic heavy metals such as mercury and aluminium into children might cause eczema ...

Posted On 03/04/2024

depadoo

Interesting article. This is the 3rd year I have experienced horrible itching on my hands. It has always been the end of January. This year I did not have a rash and it lasted only 14 days. We have gone through the list of possible suspects with nothing. A few interesting things that I did not share with dermatologist 1/ started few months after I had covid, no jab and starts after arriving in AZ. My question can This be related? I wondered if the rash and itchiness is caused by my close proximity to a large population of people who have been jabbed multiple times? At home I am not in constant contact all day long. Here I'm in a 55+ community and all my social activities are in the community. Might be grasping but only thing making sense right now

Posted On 03/04/2024

jef9075

Hi depadoo. It may be related to close proximity as you stated. Have you checked your Vitamin D levels? The good Dr. and others recommend to get that over 50 ng/ml. (60-80 might be best). There's a topical aloe vera product called Skin Gel by Aloe Life. It is a whole leaf concentrate that is brownish in color. It's a lot more potent than a lot of clear looking aloe products. Very good product. Good luck.

depadoo

Jef9075, my vit d levels are good. One PA suggested that I am in the sun except for November and December. She speculated that "maybe" by January my skin is revolting from lack of sun. Thanks for the aloe rec. Would I use it every day? I do have quite a number of AIs one being Raynauds since being diagnosed with fibro caused by levaquin. I mention that but no one seems concerned. But I've had all these for 20+ years

Posted On 03/04/2024

helpothers

I have had itchy skin around scars for several years following surgery. I believe the nerves did not heal properly. It is not constant but the areas are very hypersensitive. I read recently about neural therapy and am looking for someone who may be willing to try and treat this with that. I had read that some people perceive pain as itching so perhaps this is what is happening for me. Identifying itching when there is no rash has been a challenge. I was hoping maybe there was some new info for my situation that I'd not seen yet.

stoneharbor

This is great to have an explanation of where the itch actually comes from in cases of eczema and some ways to stop the itch quite easily. Though the actual cause of eczema is multifarious, one that is worth mentioning here because we already focus on it's devious destruction of our bodies in other ways is PUFA, and especially omega-6 fat, also called linoleic acid, or LA. When consumed in excess, LA exhausts the enzymes that are needed to convert it to other necessary oils like GLA, DGLA, and AA that are critical for skin health as well as important to the entire immune system!

"Similarly, a-linolenic acid [omega-3] concentrations were elevated in the patients whereas the concentrations of its metabolites [DHA, EPA] were reduced." So higher levels of the parent omega-6 and omega-3 oils can actually reduce the levels circulating of their very important derivatives like GLA and DHA, and some of these are very important to creating a healthy skin surface: "Therefore, it was suggested that in atopic eczema there might be a reduced rate of activity of the enzyme 6-desaturase that converts linoleic acid to GLA and -linolenic acid to stearidonic acid...." Later, a study in Sweden found: "In children with atopic eczema, linoleic acid concentrations were substantially elevated, whereas concentrations of DGLA, AA, and docosahexaenoic acid were reduced highly significantly." So we may often have a "high PUFA" problem as one cause of eczema.

There's a lot more here on this from the American Journal of Clinical Nutrition:

ajcn.nutrition.org/.../S0002-9165 (23)06988-5/fulltext But remember, this is just one cause of eczema. It's a disease with symptoms arising from various sources. And itching is attending only some cases of eczema.

Posted On 03/04/2024

joeshopkins

I had a bad case of excema all over me. Dermatologist put me on Dupixent. It worked wonders but man it was expensive. Dermatologist said I may have to take it the rest of my life. After about 3 years, I made a successfully weaned myself off of it. Interesting though is that in the meantime I had started taking 1500 mg of Omega 3 daily. Maybe that had something to do with my success

billstri

I been using B12/MIC injections to help loose weight. So far, they have not seemed to help much with weight control. First 3 months, it was one per week, then doubled to twice per week since. I have had eczema for the past couple of decades and have tried lots for it. The prescription steroid cream used more than a week at a time causes bruising. It helps a lot for several days and then the cream makes it worse. What works better for me is at the first sign of itch is using Colloidal Oatmeal creams a couple times per day every day for months until it goes away and stays away. But when I doubled B12/MIC injections during the worst part of the year for my eczema, the eczema gradually magically went away and never came back during the time of year when I always have lots of problems (August through January).

I don't know what the injections have to do with eczema or if something else fixed the problem as this is a case study of one person, not 10,000. My skin texture has improved very slowly over time with the injections. If you have eczema, the fix might be to boost the "C" in MIC, which stands for Choline. The injections are giving me 200 mg of Choline per week. We supposedly need around 500 mg of Choline per day. Takes tons of effort to get enough from diet, and I chronically fail to get enough.

Basically, you have to eat 3 eggs per day, every day where you can switch out the eggs for beef liver when ever you want. Supplements with Choline are likely not absorbable. Can't say if lack of Choline leads to eczema, but I would like to ask the researchers if they could test my idea. Choline is made by your liver but less as you get older and the liver does not make enough, so lots has to come from diet, but like calcium, very foods have it. Lack of Choline is associated with fatty liver. Increasing Choline to help with eczema would just be a guess as nobody out there has made that connection, but it is a healthy food choice. Krill oil also has lots of Choline.

Posted On 03/04/2024

salviachela

btw I have photographs showing the extent of the terrible raised rashes, and when asleep I scratched myself unknowingly. This is a huge, huge deal for those suffering from uncontrollable itching.

salviachela

several years ago my eczema was acute. Received steroids and ointments that didn't control it completely and both arms, hands, chest spreading. Constant benadryl was killing me cognitively. Had created excel spreadsheets for tallying my food intake using cronometer since 2013 I noticed that high protein intake corresponded to severity. Cut down to less than 30 grams a day and it helped. Every time I went over 40 it came back. It's been at least since 2019 that I've had an outbreak. I can eat higher protein now but if it continues for more than a few days the symptoms recur, also acidic foods even tomato and my favorite apple cider vinegar can no longer tolerate. Some kinds of store-bought kombuchas also. Eczema free otherwise. Now I'm considering that eating a small amount of baking soda could have been helpful.

Posted On 03/04/2024

sherryt

Right around the time my mother passed away I developed pruritis nodularis. Itchy spots from my head to my toes. I was miserable. Dermatologists prescribed lotions and then Dupixant. I went off the Dupixant because I don't trust pharma or what's in their injections. I currently have spots on my upper back and neck and treat them with rubbing alcohol and Merthiolate (mercury free). I would love to be able to wear tank tops again. Any advice for this skin condition? GUI? Thank you for the above suggestions!

Posted On 03/04/2024

reb22656

Atopic eczema is part of the allergic triad—eczema, allergies, and asthma. I've had all three. I've never heard of it being connected to autoimmune diseases.