Eczema and Inflammation: The Inner Ecosystem Connection

Eczema – also called atopic dermatitis – is a skin disorder that affects the outermost layers of the skin. Research shows that those with eczema are likely to have leaky gut or a wounded inner ecosystem.

In the United States, about 10–20% of children have eczema.[1] It often appears in infancy. And, if you have eczema, you may have flare-ups well into adulthood.

Children and babies with eczema tend to have food sensitivities. Their inner ecosystem is often out of balance. Babies with eczema are also more likely to go on to develop respiratory allergies, like asthma.[2]

So, what causes childhood eczema?

While a doctor will often treat eczema with topical creams and even steroids, the root cause of eczema isn’t in the skin. Instead, research tells us that eczema begins in the gut.[3, 4]

What Is Eczema?

With eczema, skin becomes red, swollen, scaly, and itchy. Blisters may form. In severe situations, you see the skin crack, ooze clear fluid, and sometimes even bleed.

Despite appearances, eczema is not just a skin disorder. Eczema means the breakdown of your barrier systems. And very often, eczema is a gut disorder that shows up in the skin.

As it turns out, the gut and the skin have something in common.

Both are designed to protect the body. Both contain specialized cells (called dendritic cells) that belong to the immune system. Besides the skin and the digestive tract, dendritic cells are also found in the nose and lungs. These specialized immune cells help make up your barrier systems. They filter and tag anything from the outside that does not belong in the body.

This can mean:

- Harmful bacteria, viruses, fungi – and their waste
- Food
- Pollutants in the air
- Environmental chemicals and toxins

When dendritic cells are “turned on” in one part of the body, it can trigger an alarm in other areas of the body that have dendritic cells. To you and me, this alarm looks like inflammation.[5]

Research shows that those with eczema are likely to have leaky gut or a wounded inner ecosystem. [6, 7] And often, the two go hand-in-hand.

3 Factors That Influence Your Baby’s Inner Ecosystem

There are 3 universal factors that influence the inner ecosystem and the skin of babies. These are:

1. Birth Route. Before a baby is born into the world, it lives in a sterile environment. Baby’s first exposure to bacteria (and first inoculation) begins during the birthing process.

Babies that are born through the birth canal are exposed to a different set of bacteria than those
babies that are born via C-section. Those born through the birth canal are coated with beneficial lactobacillus bacteria.

Babies that are born via C-section do not have the opportunity to slide through mom’s birth canal – the first bacteria that they come into contact with are bacteria from the immediate environment, like the bacteria living on the skin. Unfortunately, the bacteria that live in the gut and those that live on the skin are different.

2. Breast or Formula Fed. Breast milk contains good bacteria, and it also feeds the good bacteria that are already living in baby’s gut. A breastfed baby mostly harbors bifidobacteria.

A study recently published in the *Canadian Association Medical Journal* found that how a baby is delivered into the world and what the baby consumes during the first several months of life may have important consequences.[8] For example, researchers discovered that babies born by C-section were lacking a specific group of bacteria – even if they were breastfed. Babies that were strictly formula-fed also had differences in their gut bacteria.

According to Canadian researchers, babies born by C-section are at an increased risk of asthma, obesity, and type 1 diabetes. Breastfeeding seems to protect against these and other disorders, although the level of protection is unique to each child.

3. Antibiotic Use. Antibiotics kill bacteria; they are designed to wipe out all bacteria, not just the harmful ones. This is bad news for babies that receive antibiotic therapy.

A study published in November 2012 found that short-term antibiotic use affects the type of bacteria living in a baby’s gut.[9] In other words, antibiotic therapy will not only get rid of an infection, but it also disrupts good bacteria. Worse, it seems that even short-term antibiotic use reduces microbial diversity – or, the number of different species of bacteria living in the gut.

Is microbial diversity such a big deal? Maybe.

Research suggests that microbial diversity affects health. And studies show that when you give antibiotics to a baby, you may affect the long-term evolution of that baby’s inner ecosystem. The implications of this are still unknown. One more reason to look for an alternative to antibiotic therapy: We know that babies with eczema also tend to have low microbial diversity.[10]

**Probiotics to the Rescue**

When it comes to eczema, be proactive about your health.

Studies show that lactobacillus probiotics, as found in the Body Ecology cultures and probiotic beverages, encourage intestinal cells to produce a thin, healthy mucus. This healthy mucus prevents harmful bacteria – like E. coli and Clostridium difficile – from taking up residence in the gut.[11]

Other studies point out that too much E. coli and C. difficile show up in stool samples before the development of eczema in babies.[12] Further research confirms that babies with eczema have an inner ecosystem that is similar to an adult’s – in other words, not enough bifidobacteria and too much C. difficile.[13]

There are more reasons to consider probiotic therapy if you or your child struggle with eczema:

- Probiotics have been reported to help seal a leaky gut.[14] Remember, leaky gut is associated with eczema.
• Good bacteria also help the gut to mature. In fact, research shows that babies receiving probiotic treatment have a stronger gut barrier.[15]

• Lactobacillus probiotics have been found to regulate dendritic cells— as we mentioned earlier, dendritic cells are a part of the immune system that are activated in babies with eczema.[16]

• In a 2011 study, researchers concluded that probiotics can influence the ecosystem of the skin. This can help control infections that are related to eczema.[17]

• Good bacteria like lactobacillus and bifidobacteria have been shown to improve eczema in children and in adults.[18, 19, 20]

**The Best Form of Probiotics**

*The best way to get living lactobacillus bacteria is from fermented foods.*

**TIP:** If your child is still too young to enjoy cultured foods, like kefir and sauerkraut, we recommend giving a dropper full of cultured vegetable juice.

In addition to fermented foods, we strongly recommend following the 7 Universal Principles of the Body Ecology Diet. This is because the Body Ecology Diet is gluten-free, casein-free, and sugar-free. It is specially designed to nurture the inner ecosystem of the gut and repair the intestinal lining.

**References:**


http://bodyecology.com/articles/eczema-and-inflammation-the-inner-ecosystem-connection?utm_source=The+Body+Ecology+Newsletter&utm_campaign=d4cb366e0a-MailChimp_Eczema_Inflammation&utm_medium=email&utm_term=0_0a975e862d-d4cb366e0a-190731117&mc_cid=d4cb366e0a&mc_eid=ddb077baeb#.UcN_itiecgf