

Clinical Trial Offers Natural Eczema Treatment, Using Good Bacteria to Fight the Bad

It may seem strange to fight bacteria with more bacteria, but it could lead to a long-term solution for eczema patients

APRIL 30, 2018

DENVER, CO — Eczema is the most common skin disease worldwide and people suffering from it often deal with a lifetime of painful symptoms. Recent research into the biological basis of the disease has led to a new [clinical trial](#) offering a natural treatment that researchers hope will be a long-term solution for those dealing with the dry, itchy and often painful skin that comes with chronic eczema. The trial uses a cream containing beneficial bacteria to fight harmful bacteria. While it may seem counterintuitive to treat a bacteria with more bacteria, experts say this approach restores the natural balance of healthy skin.

“There are over 1,000 species of bacteria that all live in balance on healthy skin, some that even produce natural antibiotics to fight harmful bacteria. However, we know that eczema patients lack the beneficial bacteria needed to kill staph aureus, the bad bacteria that is often found on their skin,” said [Donald Leung, MD](#), head of the Division of Pediatric Allergy & Immunology at [National Jewish Health](#). “This allows the bad bacteria to take over, weakening the skin barrier and allowing allergens and other harmful bacteria to get in and cause infections.”

To fight this bad bacteria, researchers isolate the good bacteria from our skin and grow it in a lab. It is then applied to eczema patients’ skin as a lotion twice a day for a week. Trial participants’ skin DNA is then analyzed in a lab to determine if the cream effectively reduced the amount of bad bacteria present.

“Ideally, we want to eliminate all staph aureus from the skin of eczema patients,” said Leung. “What the cream does is help the skin gain back its natural balance and create that barrier needed to keep it healthy.”

Researchers hope that using microbiome cream will offer a long-term solution where other treatments fall short. Powerful antibiotics are commonly prescribed for eczema, but they kill good bacteria on patients’ skin along with the bad. Creams containing corticosteroids are also often prescribed to eczema patients, but they come with harsh side effects, and patients usually can’t tolerate using them for long periods of time.

“The worst symptom of eczema is the itching and the scratching, and the more you scratch, the more it spreads. It can be very painful,” said Cassandra Rodriguez, 33, who has struggled with eczema all her life.

Cassandra has tried just about every cream and medication on the market, and says when she learned about the clinical trial, she was on board to give it a try.

“The trial coordinator explained that it’s like a probiotic for your skin,” said Rodriguez. “You hear all these things about good bacteria for your gut, so it seemed like a promising idea to apply that same concept to the skin.”

Cassandra’s son also has eczema, and she’s hoping this research will lead to an effective treatment so that he won’t have to suffer with the pain and hassle of the disease for as long as she has. “He’s little now, but dealing with eczema as a teen and an adult is really difficult,” said Rodriguez. “If there were something on the market that could help him and help everyone suffering with eczema every day, that would be amazing.”

Experts say there is more research to be done, but that the goal of the trial is to discover the best combination of bacteria to clear eczema from the skin and then make it available to patients as a prescription cream. The next steps involve testing those different combinations, ensuring they’re safe and conducting a longer trial to see if the benefits of bacterial cream can truly provide a permanent solution for eczema patients.

National Jewish Health is the leading respiratory hospital in the nation. Founded 121 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit the media resources page.

Media Contacts

Our team is available to arrange interviews, discuss events and story ideas.

William Allstetter

303.398.1002

allstetterw@njhealth.org

Adam Dormuth

303.398.1082

dormutha@njhealth.org