Patients with atopic dermatitis, the most common inflammatory skin disease in the general population, often have vascular changes that lead to a loss of proteins in their skin and symptoms like oozing, bleeding, infection and redness. In a recent study, researchers at National Jewish Health tested a medication known as dupilumab in patients suffering from this condition. The study found that the drug also helped treat eczema by decreasing the proteins leaking from patients’ blood vessels into their inflamed skin. “Treatment of eczema is imperative, because patients with this disease have a leaky skin barrier, which allows allergens to come in through the skin,” said Donald Leung, MD, PhD, head of Pediatric Allergy & Clinical Immunology at National Jewish Health and first author of the paper published in *The Journal of Allergy and Clinical Immunology: In Practice*. “Allergens coming through the skin barrier can lead to a condition we refer to as the atopic march. The atopic march describes a progression of allergic diseases that often begins with very young children having atopic dermatitis (eczema), and then developing food allergies, asthma, and hay fever later in childhood and as adults.”

The study indicated that eczema made the blood vessels in the skin more permeable, measured by water loss and blood proteins appearing in the skin. After 16 weeks, the dupilumab helped significantly reduce many blood proteins that could be detected in diseased skin, indicating that it helps strengthen blood vessels throughout the body. Strengthening the blood vessels helps reduce water loss in eczema patients as well as lowering the risk of *Staphylococcus aureus* (staph) infections. “These findings demonstrate for the first time a new action of dupilumab: improved barrier function of blood vessels in atopic dermatitis,” said Dr. Leung.

**National Jewish Health** is the leading respiratory hospital in the nation. Founded 125 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 children and adults 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.
We have many faculty members, from bench scientists to clinicians, who can speak on almost any aspect of respiratory, immune, cardiac and gastrointestinal disease as well as lung cancer and basic immunology.

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- Annual Report
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