

## Wet Wraps Help Kids with Eczema

### Study gives parents, doctors additional option for treatment of painful, itchy condition

For more than 25 years, clinicians at National Jewish Health have used a non-medical treatment developed here called wet wrap therapy or soak-and-seal, to help hydrate and heal eczema patients' skin. New research confirms that this approach can have a profound effect, especially among patients with severe eczema.

In wet wrap therapy, a child first soaks in a bathtub of warm water for about 20 minutes. After the child is removed from the tub, topical medications are quickly applied to eczematous areas and creams or ointments to the clear skin while the skin is still damp. Then, the child is immediately dressed in wet clothing or wraps, followed by a layer of dry clothing. After at least two hours, the clothing is removed.

National Jewish Health researchers reported in the July 2014 issue of *The Journal of Allergy and Clinical Immunology: In Practice*<sup>1</sup> that children who underwent inpatient wet wrap therapy at National Jewish Health saw an average 71 percent reduction of symptoms, and that they maintained healthy skin a month after returning home.

A total of 72 children took part in the study and for the first time, the severity of their conditions was quantified using SCORAD (Scoring Atopic Dermatitis) and ADQ (AD Quickscore) measurements. The most severe cases were given a score of 50 and over; moderate cases were classified between 25 and 49; and mild cases scored less than 25. Study participants had initial mean scores around 50, indicating they were severe cases. Upon departure from National Jewish Health, the children's mean scores had dropped to an average of 15, a dramatic improvement.

One of the study authors, Mark Bogunewicz, MD, points out that this may not be the right approach for every child. A specific technique needs to be followed in order for wet wrap therapy to be effective. Watch a video about wet wrap therapy: [njhealth.org/wetwraptherapy](http://njhealth.org/wetwraptherapy)

<sup>1</sup>Nicol NH, Boguniewicz M, Strand M, Klinnert MD, "Wet wrap therapy in children with moderate to severe atopic dermatitis in a multidisciplinary treatment program", *J Allergy Clin Immunol Pract*. 2014 Jul-Aug;2(4):400-6.

## In the News

### Insurance Change for Lung Cancer Screening

Beginning in January 2015, lung cancer screening CT for high-risk patients is now covered by private insurance and will likely be covered by Medicare in the spring or summer of 2015. Criteria for high-risk patients are:

- Age 55 or greater
- 30+ pack years smoking history
- Current smoker or quit within the past 15 years



A patient undergoes wet wrap therapy at National Jewish Health.

# Prevalence of Allergic Diseases in the Elderly Appears to be Rising

Allergic disorders are most common in children, but in the elderly, these disorders are often underdiagnosed and appear to be on the rise, according to a literature review by National Jewish Health physician researchers Henry Milgrom, MD, and Hua Huang, MD, PhD, in the February 2014 issue of *Gerontology*<sup>2</sup>. The review covered three allergic diseases: asthma, allergic rhinitis, and atopic dermatitis. The prevalence of allergic diseases in the elderly ranges from 5 to 10 percent, but is influenced by:

- A gradual decline in immune function
- Age-related changes in tissue structure

Allergic disorders are complicated by comorbidities, polypharmacy and the adverse effects of drugs.

## Asthma

Older asthmatic patients are more likely to be underdiagnosed and undertreated. Assessment of asthma in the elderly is often complicated by a history of smoking and heart disease. Asthma in the elderly may be more resistant to corticosteroids. Data on the effect of both quick-relievers and asthma controller medications in the elderly are scarce.

## Allergic Rhinitis

Allergic rhinitis (AR) in the elderly is often wrongly attributed to respiratory infections, or its symptoms may be ignored. The symptoms of AR are magnified by anatomical and physiological changes in the nose that arise with age. Like asthma, AR is frequently associated with complications and comorbid conditions. Complications may include chronic sinusitis, postnasal drip that causes persistent or recurrent cough, as well as sleep abnormalities and related daytime fatigue.

The goal of treatment should be the safe and effective prevention or relief of symptoms by:

- Moistening of the nasal mucosa
- Reduction of indoor allergen exposure

Therapy with non-sedating antihistamines and intranasal corticosteroids has proven to be effective in treating AR and improving health-related quality of life. Specific allergy immunotherapy should be considered.

## Atopic Dermatitis

Skin changes due to aging contribute to atopic dermatitis (AD). They can include:

- Decreased skin surface lipids
- Impaired clearance of transepidermally absorbed materials from the dermis
- Reduced sweat and sebum production
- Diminished barrier repair
- Thinner and more fragile skin, with a lower amount of subcutaneous fat

Itch often worsens with allergen exposures, dry air, sweating, local irritation and emotional stress. Common triggers associated with AD include certain foods, airborne allergens such as dust mites, mold and dander, staphylococcal colonization of the skin and topical products such as cosmetics.

Current treatments for AD include hydration, topical corticosteroids, oral antihistamines, avoidance of triggering foods, and antibiotics for bacterial infection.

<sup>2</sup>Milgrom H, Huang H, "Allergic Disorders at a Venerable Age: A Mini-Review" *Gerontology* 2014; 60(2); 99-107.

# First Medications for Idiopathic Pulmonary Fibrosis Approved

## Pirfenidone and nintedanib slow loss of lung function

In October 2014, the U.S. Food and Drug Administration approved the first two medications for treatment of idiopathic pulmonary fibrosis: pirfenidone (Esbriet) and nintedanib (Ofev).

Idiopathic pulmonary fibrosis (IPF) is a progressive, fatal scarring of the lungs. Researchers do not understand what causes IPF. Mean survival of patients with IPF is three to five years after diagnosis, worse than for many cancers. Approximately 50,000 Americans die of IPF every year.

National Jewish Health has one of the largest IPF programs in the nation, and its physicians contributed to trials of the two recently approved medications. As reported in the *New England Journal of Medicine*<sup>3</sup>, nintedanib and pirfenidone

each slowed the rapid loss of lung function that is seen in patients with IPF. There were fewer deaths during the studies in those taking either nintedanib or pirfenidone, although the differences were not considered statistically significant.

The drugs are approved for any patient with IPF regardless of disease severity. There are no safety or efficacy data on using both drugs at the same time within the same patient, so IPF experts strongly recommend against this practice. Each drug has potential side effects, and patients' tolerance or intolerance of them will likely be the primary factor in determining which one to use.

<sup>3</sup>Brown KK et al, "Safety and efficacy of nintedanib in idiopathic pulmonary fibrosis", *N Engl J Med*. 2014 May 29;370(22):2071-82. Epub 2014 May 18.

## Bronchial Thermoplasty Shows Long-Term Effectiveness for Asthma

Data show improvements maintained for five years after procedure

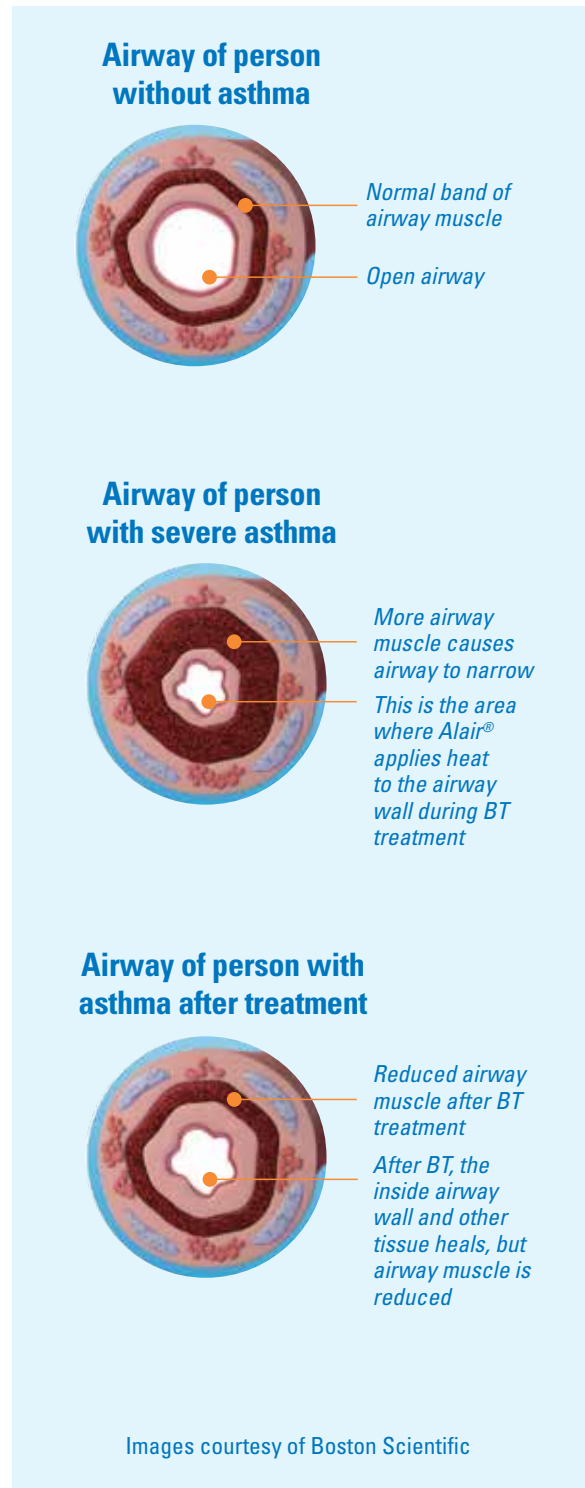
The beneficial effects of bronchial thermoplasty (BT), a non-pharmacologic treatment for asthma, last at least five years, according to researchers at National Jewish Health and other institutions. The therapy, which applies heat to a patient's airways during a bronchoscopy procedure, was approved by the U.S. Food and Drug Administration in April 2010. Researchers, led by National Jewish Health pulmonologist Michael Wechsler, MD, reported in the December 2013 issue of the *Journal of Allergy and Clinical Immunology*<sup>4</sup> that reductions in severe asthma exacerbations, emergency department visits, medication use and missed workdays continued out to five years after the procedure was performed.

During bronchial thermoplasty, a physician uses a specialized bronchoscope to apply radio frequency energy to heat the airways. The treatment is done in three separate procedures approximately three weeks apart. It reduces smooth muscle surrounding the airways, which can constrict and reduce airflow in asthma patients.

In the year before bronchial thermoplasty, 52 percent of patients in the study suffered severe exacerbations of their asthma. That dropped to 31 percent in the first year following the treatment and averaged 29 percent over the five years following the procedure. Average use of corticosteroid medications also dropped 17 percent.

Stable rates of respiratory adverse events and respiratory-related hospitalizations, as well as unchanged CT scans, in years two through five indicated that there were no significant safety concerns with the procedure.

<sup>4</sup>Wechsler, ME et al, "Bronchial thermoplasty: Long-term safety and effectiveness in patients with severe persistent asthma", *J Allergy Clin Immunol*. 2013 Dec;132(6):1295-302. Epub 2013 Aug 30.



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