

# Accurate diagnosis and patient education are often overlooked in pediatric asthma management



**UCLA pediatric pulmonologists offer comprehensive treatment options** for the medical management of asthma, including advanced pulmonary function testing and a multi-faceted patient education program. In addition, UCLA pediatric pulmonary specialists are actively developing and researching new tools to improve the diagnosis and management of this lifelong condition.

Asthma care focuses on managing the condition — preventing symptoms and treating attacks when they occur. In most cases, asthma can be controlled if diagnosed properly and managed with appropriate use of prescribed medications, such as inhaled corticosteroids, along with lifestyle changes to avoid such triggers as secondhand smoke, pet dander and other allergens.

Asthma now affects nearly one in 10 children and almost one in 12 Americans of all ages — or about 7.1 million children and 18.9 million adults. The prevalence is increasing each year among all demographic groups, though the reason for this is unclear. Possible contributing factors include environmental exposures, such as allergens and tobacco smoke. Researchers are also exploring a possible link between obesity and asthma.

## Asthma education embraces the 21<sup>st</sup> century

The future of asthma-patient education is multi-platform, say UCLA pediatric pulmonologists. Patients and their families want to receive asthma information and tips in a number of different ways — from keychain tabs and refrigerator magnets to wallet cards and DVDs. Some families still favor printed guides. Others prefer a video education, such as the animated “how-to” videos that the UCLA Division of Pediatric Pulmonology posts on its website.

“There is a range of needs we as a profession are not yet meeting — including asthma education for the smartphone age,” says Sande Okelo, MD, PhD, director of the UCLA Pediatric Asthma Center. “The take-home message is that patients and families want knowledge about asthma management and prevention in easy-to-use formats that fit their lifestyles.” The key for UCLA pediatric pulmonologists is demonstrating through research how effective each format is at helping patients control their asthma and, as a result, avoid unnecessary trips to the emergency room.

## Precise and thorough diagnosis

Guidelines from the National Institutes of Health call for doctors diagnosing asthma to classify its severity as mild intermittent, mild persistent, moderate persistent, and severe persistent. This classification helps ensure that patients receive adequate treatment to control their asthma symptoms. Studies have shown, however, that many providers don't follow this best practice in their assessments before prescribing treatment.

The biggest challenge in making a proper diagnosis is the fluctuating pattern of symptoms — how the child looks during an office visit can be deceptive. To collect more information for a more accurate diagnosis, UCLA pediatric pulmonology researchers developed and are testing a data-collection questionnaire. Patients and their families complete the two-page questionnaire — the Pediatric Asthma Control and Communication Instrument (PACCI), which has been validated by multiple peer-reviewed journal articles — in the doctor's waiting room to help healthcare providers assess how the child is doing. Aided by information from the questionnaire, physicians can more easily categorize the severity of patients' asthma in compliance with national guidelines. The materials developed by the UCLA team also include a treatment guide to help the clinician further evaluate patients and develop treatment plans.

## Full range of treatments

To medically manage asthma, physicians work with the patient and family on an individualized plan that includes both long-term control of asthma symptoms and treatment for acute attacks. While more than 90 percent of patients will respond to traditional asthma medications, the more complex, persistent cases often call for a different approach. Monoclonal antibodies, a form of immunotherapy, are an advanced treatment option administered in monthly injections. UCLA pediatric pulmonologists work as part of a multidisciplinary team that includes a pulmonary nurse specialist who is a certified asthma educator, and trained respiratory therapists to offer the most appropriate care for all asthma patients.

## Education is an important component of care

Precise diagnosis and appropriate treatment can fail to manage symptoms when patients don't use their asthma medications properly. Often, children whose conditions are out of control don't need more intense medications, they simply need better technique in using the inhalation devices, such as metered-dose inhalers or nebulizers. A written treatment plan is a key component of effective asthma education, yet the Centers for Disease Control and Prevention (CDC) found that only a small percentage of patients are given such a plan.

UCLA offers a full program of device training, including an initial analysis of a child's technique and regular assessments at each visit using standardized scoring. UCLA specialists are pilot testing a picture-based treatment plan to make instructions easier for patients and families to follow.

## Participating Physicians

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