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Many Children with Asthma Use Their Inhalers Incorrectly, Leading to Serious Complications

Experts offer tips for proper use that will have kids and their parents breathing easier

DENVER -- Common mistakes taking inhaled medications for asthma leave many patients with uncontrolled asthma, leading to unnecessary asthma attacks, emergency room visits and hospital admissions among the seven million children with asthma in the United States.

“We see a lot of children, in fact, who just don’t know how to use their inhalers at all,” said [BJ Lanser, MD](#), a pediatrician and asthma specialist at [National Jewish Health](#) in Denver. “For whatever reason, they were given the inhalers but were never taught the proper techniques in how to use them, and that can lead to serious problems.”

Poor inhaler technique fails to deliver medications deep into the airways where they are needed. Among the more common mistakes children make is using an inhaler without a spacer, a plastic tube attached to the mouthpiece. When children activate the inhaler, the spacer lets the medication mix with air so that it can be inhaled more effectively. For smaller children, spacers often are paired with masks to make the process easier.

“Without a spacer, 70 to 80 percent of the medicine ends up in the child’s mouth and never gets deep into the lungs where it needs to be,” said Lanser. “If they continue to make those mistakes dose after dose, their symptoms begin to worsen and often those children end up in the hospital.”

That’s just what happened to 10-year-old Amanda Grabel of Santa Fe, New Mexico. “She was about 7 when we noticed that she would have really bad asthma attacks whenever she got a cold,” said Rori Grabel, Amanda’s mother. “We saw doctor after doctor and they threw more and more medicine at her, but nothing was working.”

In addition to their family doctor, the Grabels saw an allergy specialist, a pediatric pulmonologist and made several frantic trips to the ER. “Amanda was afraid to go to sleep at night, because she was afraid she was going to die,” Grabel said. “That’s how bad things had gotten.”

After seeing doctors in three states, the Grabels took Amanda to see Dr. Lanser at National Jewish Health in Denver and were relieved by his evaluation.

“Amanda didn’t need any more medicine,” said Lanser. “She had the right medication, she just wasn’t taking it properly. So, we really worked with her on technique when using her inhaler and today, she’s thriving.”

If your child uses an inhaler to control asthma, here are some tips to help them get the most out of their medicine:

- *Always stand when using an inhaler.* Standing allows the lungs to fully expand so the medication can get where it is needed most.
- *Look straight ahead.* You want to make sure your head is in a neutral position, not leaning forward or backward. This will help direct the medicine into your airways and prevent it from collecting in your mouth.
- *Before you inhale, exhale.* Have your child take some normal breaths and then a big, deep breath, then fully exhale so the lungs are empty. Then, when your child inhales, the medicine gets deep into the lungs.
- *Inhale slowly.* Even if you are having trouble breathing at the time, be sure to inhale your medicine slowly. If you hear a whistling sound from your spacer, you know you are inhaling too quickly.
- *Close your lips around the mouthpiece.* Because the medicine is aerosolized, it can easily escape the mouthpiece, so be sure to make a tight seal with your lips to get all the medication into your lungs.

Just a little training made a big difference for Amanda. Today, she runs, plays soccer and tennis and plays the trumpet in the band. “I feel like I don’t even have asthma anymore,” she said. “I know that I do, but now I can just be happy and not worry about anything because it’s under control.”

For a list of common mistakes children make while using inhalers and how to correct them, click [here](#).

National Jewish Health is the leading respiratory hospital in the nation. Founded 117 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 and coordinated care. To learn more, visit njhealth.org.