

Critical errors in inhaler technique common in children with asthma

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In the first study to evaluate inhaler technique in children hospitalized for asthma—the group at highest risk for complications and death from asthma—researchers found that nearly half of participants demonstrated improper inhaler use, which means they routinely were not taking in the full dose of medication. Adolescents most commonly displayed critical errors in inhaler technique. They also often skipped using a spacer, which is a device that is recommended for use with an inhaler to help the right amount of asthma medication reach the lungs. Findings were published in the *Journal of Hospital Medicine*.

"We know that [asthma](#) can be well managed in the majority of patients and using your inhaler correctly is key factor to managing asthma," says lead author Waheeda Samady, MD, hospitalist at Ann & Robert H. Lurie Children's Hospital of Chicago, and Assistant Professor of Pediatrics at Northwestern University Feinberg School of Medicine. "Improper inhaler technique can contribute to children having uncontrolled asthma and needing to come to the hospital for their asthma. Our study suggests that as [healthcare providers](#) we can do a better job

showing patients and families the correct inhaler and spacer technique, and checking it frequently to ensure they master it."

Out of 113 [study participants](#), 2-16 years of age, 42 percent missed at least one critical step in their inhaler technique. Researchers found that 18 percent did not use a spacer device with their inhaler, and that these patients were mostly older.

"We see that our adolescent patients, who are transitioning to independent medication management, still need close monitoring to make sure they use their inhaler and spacer appropriately to achieve optimal asthma control," says Dr. Samady. "Teens may feel that using a spacer is only for [younger children](#), but using a spacer is recommended for adults as well."

Previous studies have shown that adding a spacer device to an inhaler increases the amount of asthma medication a person takes in from 34 percent to 83 percent.

"Children with asthma can lead full lives if they receive the right medication at the appropriate dose, which is why correct [inhaler technique](#) is so crucial," says Dr. Samady.

More information: Waheeda Samady, Critical Errors in Inhaler Technique among Children Hospitalized with Asthma, *Journal of Hospital Medicine* (2019). [DOI: 10.12788/jhm.3195](#)

Provided by Ann & Robert H. Lurie Children's Hospital of Chicago

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