

Should Nebulizers Be Used in Schools? – School Nurse Guide

Purpose

This document provides guidance regarding the use of nebulizer treatments in school settings and the rationale for limiting or prohibiting nebulizer administration during the school day.

Why Schools Should Limit Nebulizer Use

1. Nebulizers are more likely to spread respiratory infections.

Nebulizer treatments are considered aerosol-generating procedures. During treatment, nebulizers create a mist of fine particles that can disperse respiratory droplets and aerosols into the surrounding air. If a student has a contagious respiratory illness, aerosolized particles may increase the risk of transmission to students and staff in indoor school environments.

Limiting aerosol-generating procedures is considered a reasonable infection prevention measure.

2. Nebulizer treatments take 10-15 minutes compared to metered-dose inhalers (MDIs) or dry powder inhalers, which typically takes 2-4 minutes to complete. Students will miss more class time if using a nebulizer. Limited school health office staff can make it difficult to safely provide nebulizer treatments during the school day.
3. **2.5 mg nebulized albuterol ≈ 4–8 puffs of 90 mcg albuterol MDI with spacer** for acute asthma treatment, with the exact number adjusted for patient response and clinical guidelines.
4. Studies show that **MDIs with spacers are as effective as nebulizers** for delivering bronchodilators in both children (aged 2 and older) and adults with asthma with proper dosing. Rarely, individuals may require nebulized treatment depending on their severity and ability to use MDI with spacer (mask) appropriately.

Preferred Alternative

Whenever medically appropriate, schools should encourage the use of:

- Metered-dose inhalers (MDIs) with spacers

Emergency Situations

A student experiencing respiratory distress or an asthma emergency will receive appropriate emergency care according to:

- The student's Asthma Action Plan, including giving a nebulized treatment if prescribed by your child's provider.
- District emergency procedures
- Emergency Medical Services when indicated

Nebulizer Use at School: Information for Families

Our school supports students with asthma and breathing conditions while also keeping all students and staff safe and healthy and optimizing classroom instructional time.

Why Nebulizers Are Discouraged at School

1. Nebulizers turn medicine into a mist that is breathed into the lungs. This mist can also spread germs into the air, especially if a student has a respiratory illness.
2. Schools do not have the same special ventilation systems that hospitals and clinics use for these treatments. Students and staff spend many hours together indoors. Limiting nebulizer use helps reduce the spread of illness.
3. Nebulizer treatments also take more time to complete than other medication methods. This longer treatment time means more time out of class and missed instructional time.

Options That Work Well at School

Many students can safely and effectively use:

- Metered Dose Inhalers with spacers.

This option is more time efficient and is less likely to spread respiratory infections.

Emergency Care

If a student has breathing difficulty or an asthma emergency at school, the school nurse and staff will follow:

- The student's Asthma Action Plan, including giving a nebulized treatment if prescribed by your child's provider.
- School health and emergency procedures
- Emergency response protocols, including calling 911 when needed

Please contact the school nurse if you have questions or would like to discuss your child's asthma care plan.

Sources:

<https://pubmed.ncbi.nlm.nih.gov/41518867/>

<https://aaafa.org/asthma/living-with-asthma/managing-asthma-and-allergies-at-school/asthma-covid19-flu-rsv-school/>

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