

BACK TO SCHOOL

NEW NORMAL
LIFESTYLE



Asthma Care in
School
during
CoVID Pandemic

**NEW NORMAL
LIFESTYLE**



Asthma Care in School during CoVID 19 Pandemic

Adapted from Allergy & Asthma network

A student presents at the school Health Office with report of respiratory symptoms

Could it be viral?

Check for fever: > 100.4
Is the child in respiratory distress?
Follow EASI PROTOCOL

Assess for additional viral symptoms

- Fever of over 100.4
- Cough with/without wheeze
- Nasal congestion
- Nausea/vomiting/diarrhea
- Headache/Fatigue
- Myalgia
- Poor appetite
- Swelling/rash on hands & feet

No

Assess for additional asthma symptoms

- Past history of asthma
- No fever
- Audible wheeze / Cough
- Chest congestion or tightness
- Breath sounds on auscultation: expiratory wheeze
- Fatigue, Mental status
- Reports not feeling able to fully participate in daily activities
- Stops talking to catch breath

Yes

No

Yes

Assess for asthma issues

- & treat** as needed,
- Isolate student
 - Call parent
- Dismiss, refer to healthcare provider
(Dismiss, refer to healthcare provider as of 5/20)

If CoVID suspect, follow OSH CoVID protocol

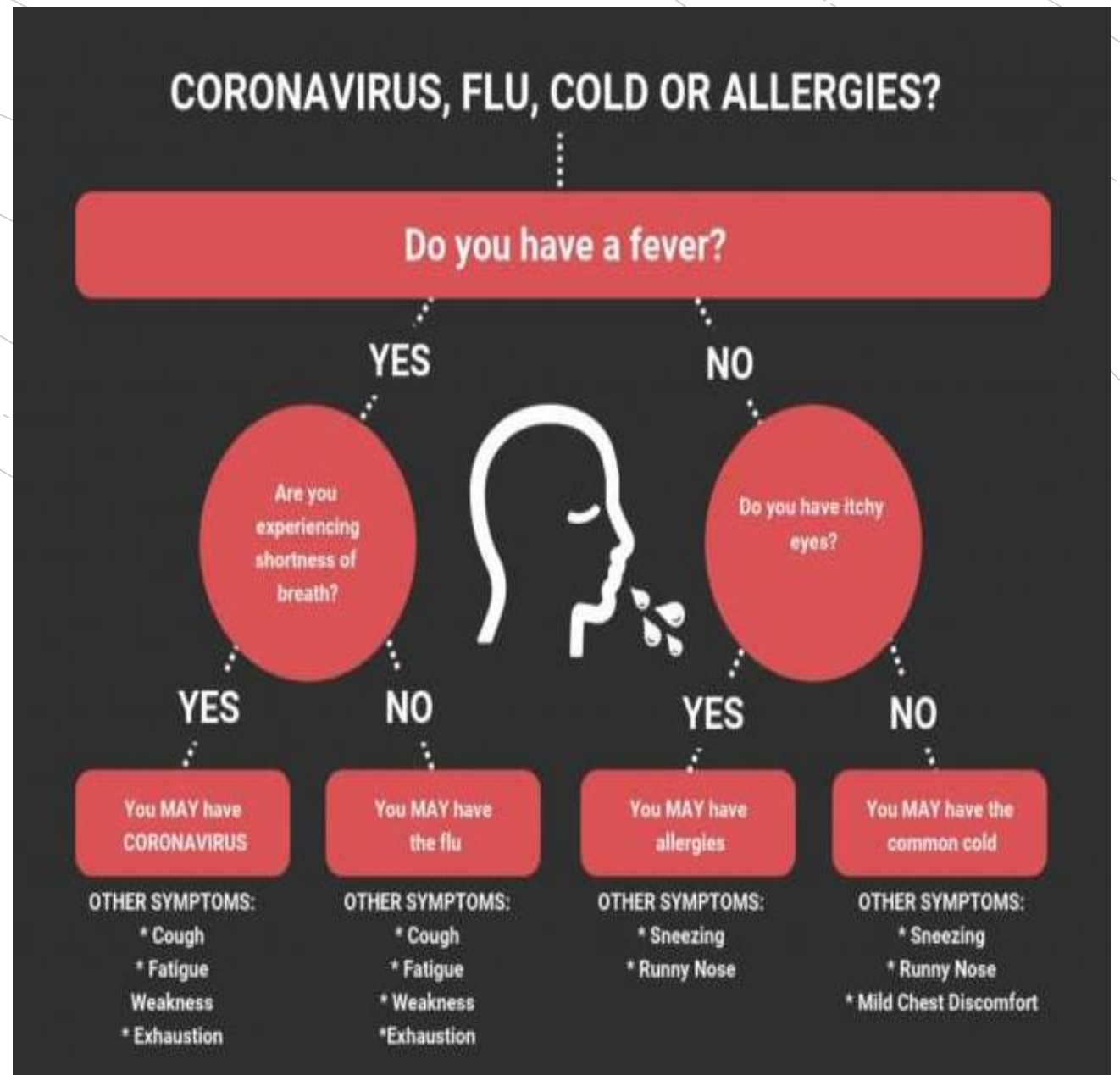


**FOLLOW
EASI
PROTOCOL**

Observe
Return to class as appropriate

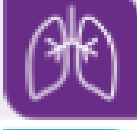


Allergies, Cold,
FLU, OR CoVID 19?



Sources: CDC, NIH

CoVID 19
Cold
Flu
Allergies
Asthma

Symptoms	Coronavirus [†] (COVID-19) Symptoms range from mild to severe	Cold Gradual onset of symptoms	Flu Abrupt onset of symptoms	Seasonal Allergies Abrupt onset of symptoms	Asthma Gradual or abrupt onset of symptoms
 Length of symptoms	7-25 days	Less than 14 days	7-14 days	Several weeks	Can start quickly or last for hours or longer*
 Cough	Common (usually dry)	Common (mild)	Common (usually dry)	Rare (usually dry unless it triggers asthma)	Common (can be dry or wet/productive)
 Wheezing	No	No**	No**	No**	Common
 Shortness of breath	Sometimes	No**	No**	No**	Common
 Chest tightness/ pain	Sometimes	No**	No**	No**	Common
 Rapid breathing	Sometimes	No**	No**	No**	Common
 Sneezing	No	Common	No	Common	No***
 Runny or stuffy nose	Rare	Common	Sometimes	Common	No***

COVID 19
Cold
Flu
Allergies
Asthma

Symptoms	Corona Virus (Range from Mild to Moderate)	Cold (gradual onset)	Flu (abrupt onset)	Asthma (gradual or abrupt onset)
 Sore throat	Sometimes	Common	Sometimes	Sometimes (usually mild)
 Fever	Common	Short fever period	Common	No
 Feeling tired and weak	Sometimes	Sometimes	Common	Sometimes
 Headaches	Sometimes	Rare	Common	Sometimes (related to sinus pain)
 Body aches and pains	Sometimes	Common	Common	No
 Diarrhea, nausea and vomiting	Sometimes	Rare	Sometimes	No
 Chills	Sometimes	No	Sometimes	No
 Loss of taste or smell	Sometimes	Rare	Rare	Rare



Signs of COVID-19

- [Fever](#),
- Cough
- Trouble breathing
- [Sore throat](#),
- Nasal congestion, /runny nose
- Chills
- Muscle pain
- Headache
- Loss of taste or smell
- Nausea or [vomiting](#)
- [Diarrhea](#)
- Tiredness

Signs of Multisystem inflammatory Syndrome in Children (MIS-C)

-- weeks after CoVID infection -

- Fever
- Belly pain
- Vomiting or diarrhea
- Neck pain
- Rash
- Red eyes
- Feeling very tired
- Red, cracked lips
- Swollen hands or feet
- Swollen lymph nodes
- *Reported incidence: 2 per 100,000 for <21 yrs old*

Is this Asthma or CoVID 19?



- Symptoms of asthma and COVID-19 may overlap, including cough and shortness of breath.
- Students with symptoms of COVID-19 should not attend school
- If an asthma attack starts at school, **Follow EASI protocol**
 - a student may need a bronchodilator treatment before being sent home or before an ambulance arrives

Is it Asthma or COVID 19



SYMPTOM	ASTHMA	COVID 19
COUGH	Readily responds to asthma reliever medication : Albuterol	No immediate relief with asthma reliever medication Albuterol
Shortness of breath	Difficulty in exhaling	Difficulty in taking deep breaths , inhaling
Fever, chills, loss of taste, smell, diarrhea, vomitng	Minimal systemic symptoms if at all present; Usually no associated fever, chils,etc	Have significant symptoms fever, chills, loss of taste, smell, diarrhea

Avoiding the Asthma/CoVID 19 Enigma



- Prevent symptoms from starting by avoiding asthma triggers/ lung irritants
- Use controller medication (inhaled steroids) regularly to keep asthma lung inflammation down
- Adhere to Asthma Action Plan
- Monitor symptoms
- Stay in touch with PCP
- Make sure student has MAF on file in school

**KEEP
ASTHMA
CONTROLLED !**

**DO NOT STOP ASTHMA
CONTROLLER MEDICATIONS.**

PREVENT

Minimize your risk of an asthma exacerbation requiring an ED or urgent care visit where the risk of exposure to COVID-19 is much higher.

PREPARE

Keep your asthma under control to best prepare your lungs should any infection or allergen lead to an asthma exacerbation.

**CONTINUE TAKING ASTHMA
CONTROLLER MEDICATIONS.**



GLOBAL INITIATIVE
FOR ASTHMA

RECOMMENDATIONS FOR INHALED ASTHMA CONTROLLER MEDICATIONS

- **Patients with asthma should not stop their prescribed inhaled corticosteroid controller medication (or prescribed oral corticosteroids) during the COVID-19 epidemic.**
- Stopping inhaled corticosteroids often leads to potentially dangerous worsening of asthma,
- Avoiding oral corticosteroids during severe asthma attacks may have serious consequences.

<https://ginasthma.org/recommendations-for-inhaled-asthma-controller-medications/> 19 March 2020

MYTH
Children with asthma are
not at risk because COVID-19
only affects older people.

MYTH
Children/Adults with asthma or
underlying chronic lung disease
should not return to the
classroom or work environment
until a vaccine is released.

MYTH
prolonged use of medical
masks cause CO2
intoxication and oxygen
deficiency

- If asthma or chronic lung disease is well-controlled and safety measures are in place parents may consider sending their kids back to school and adults returning to work

Prolonged use of medical masks can be uncomfortable. However, it does not lead to CO2 intoxication nor oxygen deficiency. Make sure mask fits properly and is tight enough to allow the person to breathe normally.



**I can catch
COVID-19 from
my pet**



there is **no evidence
that a dog, cat or any
pet can transmit
COVID-19**



- It appears that CoVID 19 can spread *from people to animals* in some situations, especially after close contact with a person sick with COVID-19.
- CoVID 19 has been reported in tiger, lions, dogs, cats, mink infected by sick humans

Prevalence and characterization of asthma in hospitalized and non-hospitalized patients with COVID-19

J Allergy Clin Immunol. 2020 Aug; 146(2): 307–314.e4. Krishan D. Chhiba, et al

Retrospective study

- 1526 patients identified with COVID-19
- 220 (14%) were classified as having asthma.

Result

- Asthma was not associated with an increased risk of hospitalization (relative risk, 0.96; 95% CI, 0.77-1.19) after adjusting for age, sex, and comorbidities.
- The ongoing use of inhaled corticosteroids did not increase the risk of hospitalization in a similar adjusted model (relative risk, 1.39; 95% CI, 0.90-2.15).





Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Patients with moderate to severe asthma may be more susceptible to severe coronavirus disease 2019 (COVID-19).

- Keep asthma under control by following the [asthma action plan](#).
- Continue current medications, including any inhalers with steroids. Ensure [correct use of MDI](#)
- Don't stop any medications or change asthma treatment plan without talking with the PCP.
- Discuss any concerns about treatment with the PCP
- Avoid [asthma triggers](#).
- Talk to PCP, insurer, and pharmacist about having an emergency supply of prescription medications, such as asthma inhalers. Make sure that there is 30 days of non-prescription medications and [supplies](#) on hand in case of a need to stay home for a long time arises
- As more cases of COVID-19 are discovered and our communities take action to combat the spread of disease, it is natural for some people to feel concerned or stressed. Strong emotions can trigger an asthma attack. [Take steps to help cope with stress and anxiety](#).

Coronavirus Disease 2019

CDC is responding to the novel coronavirus outbreak.



Nebulizer therapy in patients with COVID-19 infection can transmit potentially viable coronavirus to susceptible bystander hosts.

1. CMAJ. 2020 Mar 30; 192(13): E346
2. Respir Medicine June 2020
3. <https://www.thoracic.org/patients/patient-resources/resources/aerosol-generating-procedures>



- Nebulizers generate aerosol particles in the size of 1–5 μm , which can carry bacteria and viruses into the deep lung.
- If inhaled, fine aerosols often travel deeper into the body than heavy respiratory droplets, and spark severe infection in the lungs
- The risk of infection transmission via droplet nuclei and aerosols may increase during nebulizer treatments because of the potential to generate a high volume of respiratory aerosols that may be propelled over a longer distance than is involved in a natural dispersion pattern.
- Furthermore, the larger particles may stimulate both patients' and bystanders' cough and thus increase the risk of spreading virus particles.



- *Based on the potential risks, asthma inhaled medications will be administered in medical rooms via metered-dose inhalers with a dedicated spacer, whenever possible. Avoid use of nebulizers, whenever possible, to minimize possible coronavirus transmission.*
- *Metered dose inhaler use is not an Aerosol Generating Procedure (AGP).*



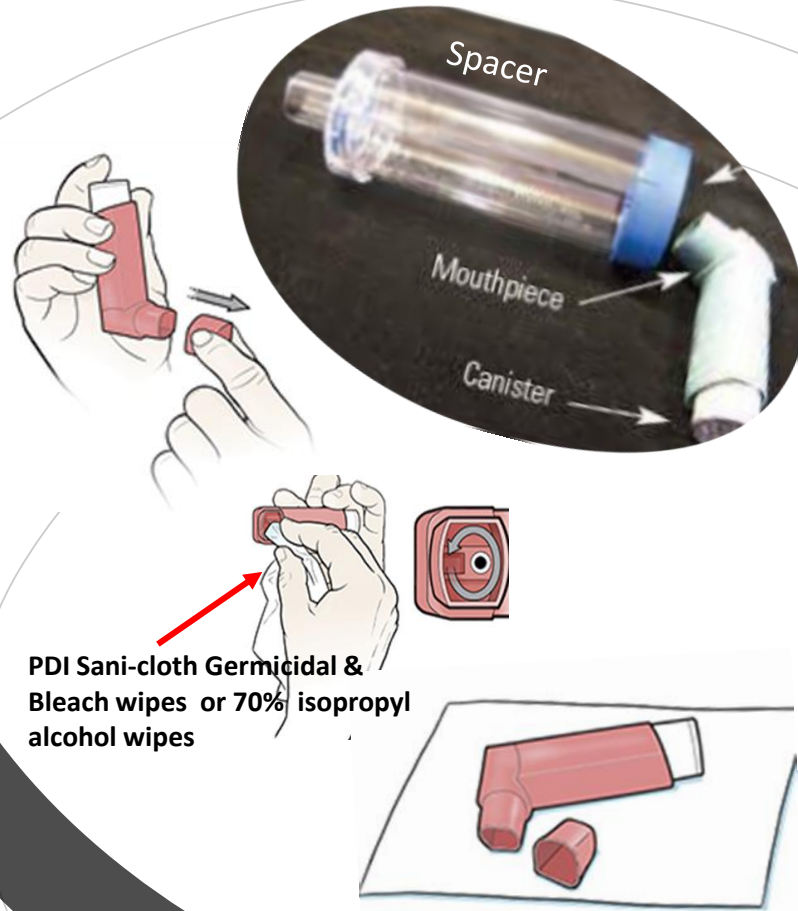
- IF nebulizer use is absolutely necessary,, the following precautionary measures to minimize the risks of corona virus transmission to other people will be enforced:
 - Upon set-up of nebulizer, have the Health Care Worker (HCW) maintain a safe distance (6 feet or greater).
 - Ensure that the nebulizer treatment is done in a separate room , with the door closed, near open windows or in areas of increased air circulation.
 - Healthcare workers performing AGPs (Aerosol Generating Procedures) should use appropriate personal protective equipment (minimum of N95 respirator as well as standard and droplet precautions).⁴ HCWs should wear a face mask (as well as eye protection, gloves and a gown) during treatment if a N95 or N100 respirator is unavailable.
 - After the nebulizer treatment , the room must be closed for 2 hours before cleaning and disinfection by trained DOE staff.

Revisiting the Need for MDI Common Canister Protocol During the COVID-19 Pandemic



- Stock shared Albuterol and Flovent metered dose inhalers can be used according to protocol
- Students should be permitted to use their personal inhaler, as needed
- When students need to use the school's stock shared inhaler, the inhaler should be used and cleaned according to protocol
- Do not allow the student to touch the inhaler. The student can touch only his own spacer.
- Only the school staff administering the inhaler can touch the inhaler.
- Before and after inhaler use, wipe all surfaces of an inhaler with an alcohol-based wipe containing at least 70% alcohol then allow these surfaces to air-dry according to protocol

Disinfecting the Common MDI Canister



Before using Common Canister MDI:

1. Remove MDI from plastic bag. Dispose of used plastic bag
2. Separate mouthpiece and cannister
3. Thoroughly wipe the canister and plastic mouthpiece with appropriate disinfection wipes for 2 minutes .
4. Use PDI Sani-cloth Germicidal and Bleach wipes which have been validated by the EPA to be effective for inactivation of COVID-19 or 70% Isopropyl Alcohol wipes
5. After thorough MDI drying, place the canister and mouthpiece back together,
6. Place in spacer dedicated for the particular student

After using Common Canister MDI,

1. Remove from spacer.
2. Separate the canister from the plastic mouthpiece,
3. Thoroughly wipe the canister and plastic mouthpiece with appropriate disinfection wipes for 2 minutes .
4. Use PDI Sani-cloth Germicidal and Bleach wipes which have been validated by the EPA to be effective for inactivation of COVID-19 or 70% Isopropyl Alcohol wipes
5. After thorough MDI drying, place the canister and mouthpiece back together
6. Place the MDI in a fresh clean plastic bag.

