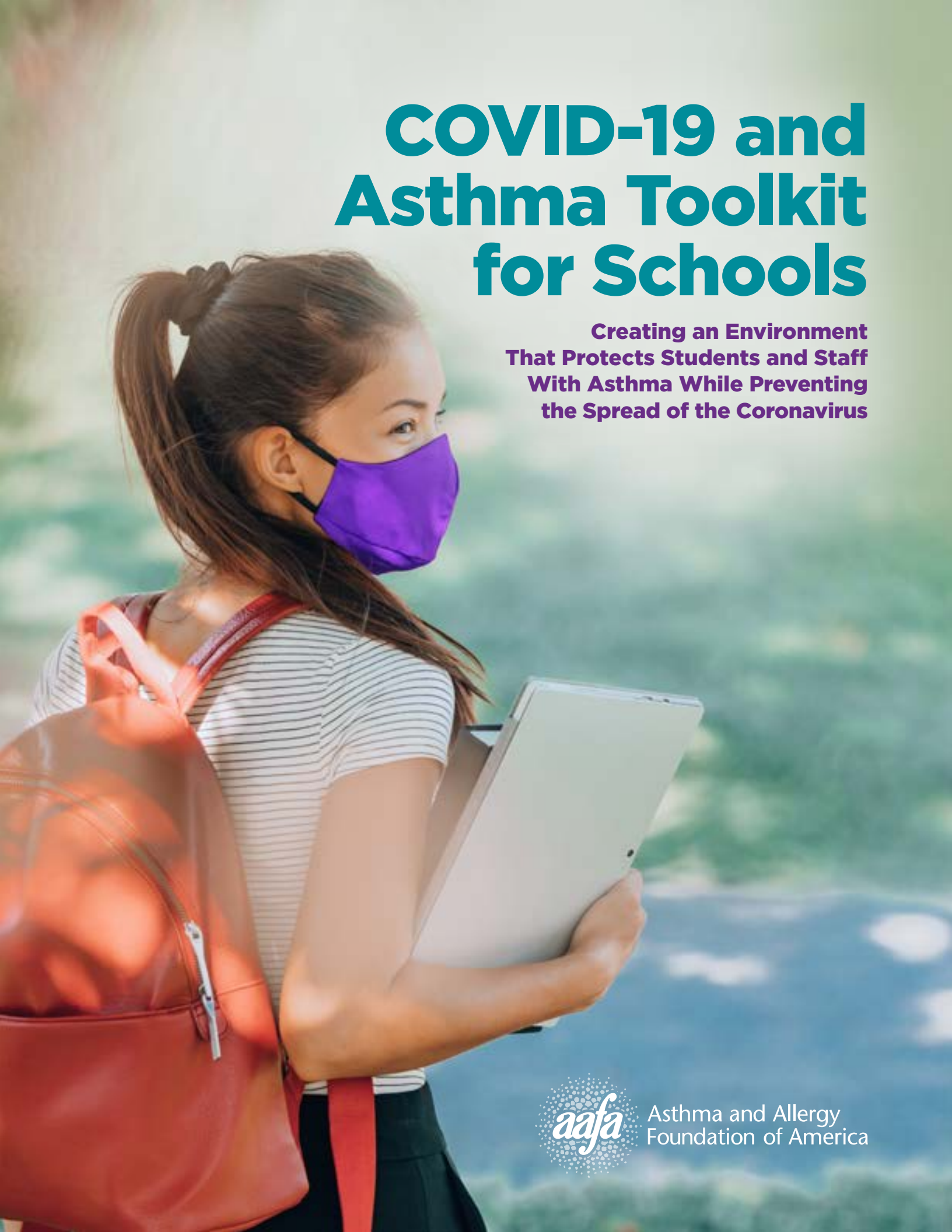

COVID-19 and Asthma Toolkit for Schools

Creating an Environment That Protects Students and Staff With Asthma While Preventing the Spread of the Coronavirus

Asthma and Allergy Foundation of America

COVID-19 and Asthma Toolkit for Schools
Creating an Environment That Protects Students and Staff With Asthma While Preventing the Spread of the Coronavirus

Available online at aafa.org/schools-covid19

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Disclaimer

This guidance is offered as a supplement to current county/state/federal guidelines. It is not meant to replace or supersede current county/state/federal guidelines. This toolkit acts as a guide to help schools better manage asthma and reduce the risk of spreading the coronavirus. Following these guidelines does not guarantee there will not be a COVID-19 outbreak but should help schools reduce the risk. A layered approach of using vaccines, physical distancing, face masks, and improved air ventilation is recommended. COVID-19 is a rapidly changing pandemic, and this guidance reflects the most accurate information available at the time of publication. AAFA will update this toolkit as resources permit to reflect the most current guidance. The most current version can be accessed at: aafa.org/schools-covid19

About the Asthma and Allergy Foundation of America

The Asthma and Allergy Foundation of America (AAFA), a not-for-profit organization founded in 1953, is the leading patient organization for people with asthma and allergies, and the oldest asthma and allergy patient group in the world.

AAFA is dedicated to saving lives and reducing the burden of disease for people with asthma and allergies through support, advocacy, education and research.

For more information, visit:

Asthma and Allergy Foundation of America: aafa.org • 800-7-ASTHMA • aafa.org/contact

asthma & allergy friendly® Certification Program: aafa.org/certified

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COVID-19 School Policies Could Affect Children and Staff With Asthma

Your schools face major challenges during the COVID-19 pandemic caused by the new coronavirus (SARS-CoV-2). Face masks, physical distancing (previously referred to as social distancing), schedule changes and new cleaning practices will change how you teach and how your students learn.

As your school district implements new processes, you may also be concerned about how this will affect more vulnerable staff and students, such as those with asthma. The average classroom of 30 students will have about three students with asthma.[1] And you likely have many staff members who also have asthma.

Asthma is a serious condition that affects more than 19 million American adults and 5.5 million children.[2] It is a leading cause of missed work and school days.[3] By making your school more asthma friendly, you can help reduce symptoms and the spread of the coronavirus, as well as mitigate the need for remedial instruction.

This toolkit is designed to supplement your current district/state guidelines so you can better protect your students and staff with asthma while also protecting everyone from COVID-19.

Some aspects of COVID-19 prevention in schools have the potential to have a negative effect on students and staff with asthma. These processes or protocols could increase the risk of asthma episodes or attacks:

- Staff and students may be exposed to more cleaning chemicals and scents due to increased cleaning, especially if you use stronger cleaners or disinfectants (See "Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes" in the "Resources" section on page 35.)
- Staff and students with moderate-to-severe asthma may have trouble breathing while wearing masks during class time, recess or physical education (PE) classes
- If recess time is reduced or canceled, it could expose students and staff to poor indoor air quality and triggers for longer periods if triggers are not reduced or removed
- Students who normally use nebulizers may have trouble using a quick-relief (such as albuterol) inhaler without proper instruction and supervision

This toolkit includes information about asthma basics and how school environments can trigger asthma symptoms. COVID-19 prevention strategies can introduce more asthma triggers into your school. Constant exposure to asthma triggers in school settings can hinder learning and may cause increased asthma symptoms like coughing. Asthma and allergy symptoms may be mistaken for COVID-19 symptoms, which can cause concern. Reducing asthma triggers is an important part of keeping a school environment as healthy as possible.

Currently, the data (as of Sept. 8, 2021) show **no increased risk of COVID-19 infection or severity of COVID-19 disease in people with asthma**. The Centers for Disease Control and Prevention (CDC) lists people with moderate-to-severe or uncontrolled asthma as more likely to get severely ill or be hospitalized from COVID-19, but there is no published supporting data at this time.[4, 5, 6] People with asthma may experience asthma symptoms triggered by respiratory illnesses, such as COVID-19 and the flu. Accommodations should be put into place to protect them and other high-risk students and staff. Schools may be contacted by parents/guardians about establishing an accommodation plan under Section 504 of the Americans With Disabilities Act.

The following checklists will help you create a healthier, more asthma-friendly learning experience. We recognize your school may not have the resources and budget to implement all recommendations. Remember that any steps you can take will help improve the environment for staff and students with asthma and reduce the spread of the coronavirus.

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

Use the following checklists and resources to evaluate the health and safety of your school spaces.

HEALTH AND HYGIENE Recommended Policies and Practices	**Yes**	**No**
Face Masks and Gloves		
Require students and staff to wear masks, regardless of vaccination status.	☐	☐
Instruct students and staff on the correct way to wear a face mask and how to put it on and take off.	☐	☐
Make sure all students and staff have at least one face mask of their own and discourage sharing of face masks.	☐	☐
Maintain a supply of personal protective equipment (PPE) and masks for special circumstances or for those without a personal supply, including masks/face shields for those with disabilities, such as people who are deaf or hard of hearing.	☐	☐
Give students breaks – ideally outdoor breaks – throughout the day so students can safely remove their face masks for a period of time while staying at least 6 feet apart.	☐	☐
Modify activities and education to account for wearing masks and physical distancing.	☐	☐
Make disposable latex-free gloves available and accessible to staff who need them, such as custodians and food services staff.	☐	☐
Have staff wear latex-free gloves and face masks while using cleaning and disinfecting products.	☐	☐
Have staff wear latex-free gloves and face masks while preparing and serving food.	☐	☐
Have plenty of trash cans for proper disposal of gloves and disposable face masks available.	☐	☐

Schools should implement recent guidance from the CDC (July 2021) recommending universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status.

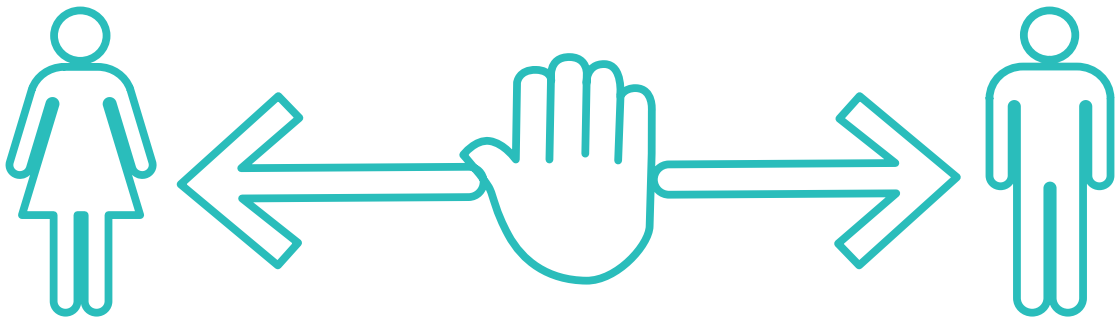
Your mask goes
Over the nose
Under the chin
Snug against the skin

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

HEALTH AND HYGIENE Recommended Policies and Practices	**Yes**	**No**
Handwashing and Hand Sanitizing		
Keep bathrooms open and available for handwashing throughout the day.	☐	☐
Make sure bathrooms and handwashing stations, including those in classrooms, have warm/hot running water and are stocked with soap (preferably unscented), trash cans, and paper towels or working hand dryers.	☐	☐
Allow for breaks throughout the day for handwashing. Supervise handwashing when possible, especially in elementary schools.	☐	☐
Limit the number of students in the bathroom at one time to ensure physical distancing.	☐	☐
Place hand sanitizer, preferably unscented, with at least 60% ethyl alcohol or 70% isopropyl alcohol, in all classrooms/gathering areas, such as the gym, cafeteria, offices, and breakrooms.	☐	☐
Supervise the use of hand sanitizers to avoid ingestion and accidental poisonings, especially in pre-K/elementary school and in some special needs settings. Don't use hand sanitizers that contain methanol, 1-propanol or have been recalled by the Food and Drug Administration (FDA).	☐	☐
Remind students and staff daily to apply hand sanitizer often. Spread it on the front and back of hands, in between fingers and on the fingertips. Rub hands together for 20 seconds and let air dry for 30 seconds. Do not wipe off excess hand sanitizer.	☐	☐
Symptom Monitoring		
Provide families with a reference checklist of symptoms in their first language so they can help. Encourage families to call the school's COVID-19 point person if they have questions before sending the student to school.	☐	☐
Encourage students and staff to stay home at the first sign of symptoms.	☐	☐
Send staff or students home if they show any signs/symptoms of COVID-19.	☐	☐
Have a plan in place for students and staff who show COVID-19 symptoms during the school day, including an isolation space for anyone with symptoms.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

HEALTH AND HYGIENE Recommended Policies and Practices	**Yes**	**No**
Physical Distancing		
Post physical guides 6 feet apart – in hallways, restrooms, gyms, cafeterias and classrooms – to help students and staff keep spaced 6 feet apart. Post directional signage on walls and flooring.	☐	☐
Remind students and staff throughout the day to physically distance. Students should stay 6 feet apart from adults, in common areas like hallways, during physical activity, and when masks can't be worn, such as when eating.	☐	☐
Set up classrooms with desks/seating so students remain 6 feet apart where feasible and no closer than 3 feet. Set up elementary, middle, and high school classrooms with desks/seating at least 3 feet apart if students are universally masked.	☐	☐
Set up middle and high school desks/seating 6 feet apart if students are not kept with their cohort/peer group and staff throughout the day.	☐	☐
Place administration office workspaces 6 feet apart.	☐	☐
School Staff Education		
Educate all school staff, including before- and after-school staff, on how to recognize COVID-19 symptoms, and provide visual cues for when they should contact emergency medical services (EMS).	☐	☐
Educate all school staff, including before- and after-school staff, on how to recognize asthma symptoms, and provide visual cues for when they should contact emergency medical services (EMS).	☐	☐
Educate all school staff on proper handwashing, cleaning, and disinfecting.	☐	☐



How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

HEALTH AND HYGIENE Recommended Policies and Practices	**Yes**	**No**
Physical Education Adjustments		
Conduct physical education and activities in a large area that allows for 6 feet of physical distancing, preferably outside.	☐	☐
Have instructions in place for physical distancing (signs, directional and standing instruction markings on the floor, in the grass or on a field).	☐	☐
Choose solo activities to keep students apart, such as hula hoops, self-paced obstacle courses, yoga, jump rope or games, such as Simon Says. Activities such as golf or cardio may work for middle or high school students.	☐	☐
Make sure students with exercise-induced asthma have access to their quick-relief (such as albuterol) inhaler so they can take it 15 to 30 minutes before physical activity to avoid asthma symptoms, and during and after activities to manage symptoms, if needed.	☐	☐
NURSING STAFF Recommended Policies and Practices	**Yes**	**No**
Have a school nurse dedicated to one school and on campus daily.	☐	☐
Assign a dedicated COVID-19 point-of-contact person – preferably the school nurse – to act as the liaison between the school, students and their families.	☐	☐
Give the nurse access to and management of an isolated, dedicated space (health room) for students and staff who are experiencing asthma or COVID-19 symptoms. It is ideal if these are two separate rooms.	☐	☐
The dedicated health room space needs immediate access to personal protective equipment (PPE), a sink and a telephone.	☐	☐
Assist families in accessing social services when they are in need of services and/or supplies due to financial considerations.	☐	☐
Make sure all required self-carry and administration paperwork is completed and on file at the school.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

MEDICINES Recommended Policies and Practices	**Yes**	**No**
Asthma Action Plans		
Work with parents/guardians to identify students with asthma or who have experienced asthma symptoms.	☐	☐
Request updated Asthma Action Plans for each child that has asthma and make sure each plan is signed by the child's doctor and kept on file at the school.	☐	☐
Make sure all school staff, including before- and after-school staff, who come in contact with a student with asthma have access to each student's written Asthma Action Plans.	☐	☐
Train school staff and teachers on how to follow an Asthma Action Plan.	☐	☐
Administering Medicines/Self-Carry Policies		
Provide families with the paperwork needed to return to school, including district-approved Asthma Action Plans and approval for self-carry and administration of medicines.	☐	☐
Make sure school nurses, administrators, teachers and staff are aware of your state's policies for students to self-carry medicines.	☐	☐
School nurses should work with each student's parents/guardians to help determine if the student has the maturity and ability to self-carry and administer their asthma medicine.	☐	☐
Make sure all required self-carry and administration paperwork is completed and on file at the school.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

MEDICINES Recommended Policies and Practices	**Yes**	**No**
Stock Albuterol		
Use inhalers as the preferred delivery device for asthma medicines. It is not recommended to use nebulizers in the school setting since it is not known if they aerosolize and possibly spread the virus. Most students should be able to use an inhaler correctly with the supervision of the school nurse and use of the teach-back method.	☐	☐
If your school has stocked undesignated albuterol, use disposable spacers.	☐	☐
If a student does not have their own spacer at school, have them use a disposable spacer with a metered dose inhaler (MDI) as appropriate.	☐	☐
Make sure before- and after-school staff have access to stock albuterol inhalers and spacers/chambers.	☐	☐
Additional Albuterol From Home		
Consider asking students with asthma to have an inhaler and spacer, if needed, on file in the nurse's office even if they can self-carry and administer. A sample letter to send home to parents is on page 31. Students often forget to bring their inhaler to school, or it can be misplaced during the day or be empty when it is needed most.	☐	☐
Don't allow students to share inhalers or spacers.	☐	☐
Education on Proper Inhaler Technique		
Have the school nurse supervise the use of asthma inhalers and have the student provide a teach-back to ensure they are priming, holding and inhaling the medication correctly, even when a spacer is used. In order to receive the entire asthma medication, the student or staff member must have the correct inhalation technique.	☐	☐
As appropriate, teach non-professional staff how to administer asthma medicines. If a full-time school nurse is not available on campus, any delegation of medication administration needs to be done under guidance from state regulations which have provisions for non-licensed personnel to administer medications.	☐	☐
Teach coaches and athletic trainers how to recognize asthma symptoms and administer asthma medicines, and make sure they have access to students' Asthma Action Plans and medicine when students can't self-carry. Establish a protocol to avoid situations where a student experiences symptoms but does not have medication readily available.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

ENVIRONMENT Recommended Policies and Practices	**Yes**	**No**
Ventilation		
Do not disable heating, ventilating and air-conditioning (HVAC) systems, if possible.	☐	☐
Keep HVAC systems running as much as possible, even when students and staff are not in the building. Run systems at least two hours before students and staff enter the building.	☐	☐
Upgrade air filters to the highest efficiency possible and ensure they are installed properly without gaps.	☐	☐
Establish a tracking system for the replacement of filters.	☐	☐
Open windows and doors on opposite ends of the building to help create cross-ventilation. This will allow fresh air to enter one side of the building and stale air to exit from the other. (Only do this when pollen counts are not high and/or outdoor air quality does not pose a health risk, especially for people with asthma. Check airnow.gov for outdoor air quality information.)	☐	☐
Make sure ventilation components are not blocked or covered by classroom supplies or plants to allow airflow.	☐	☐
Open minimum outdoor air dampers (as high as 100%) to reduce or eliminate recirculation. In mild weather, this will not affect thermal comfort or humidity. However, this may be difficult to do in cold or hot weather.	☐	☐
Measure common comfort parameters (carbon dioxide, humidity, temperature, carbon monoxide) to monitor ventilation.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

ENVIRONMENT Recommended Policies and Practices	**Yes**	**No**
Air Cleaners		
Choose air purifiers and cleaners that are CERTIFIED **asthma & allergy friendly®** to help improve indoor air quality in classrooms and common areas. (Note: **asthma & allergy friendly®** certification only tests for how well the air cleaners control asthma and allergy triggers. They have not been tested for removal of the coronavirus. Learn more at: aafa.org/certified)	☐	☐
Use purifiers and cleaners that are appropriate for the size of the room and have a HEPA filter. (See "Air Cleaners and Air Filters in the Home" in the "Resources" section on page 34 to learn more about choosing an air cleaner.)	☐	☐
Turn off the ionizer (ozone) function if the air cleaner has one. It can irritate airways and cause asthma symptoms. Ionizers, ozone generators and plasma have not been found to reduce the spread of the coronavirus.	☐	☐
Air Filters		
Replace HEPA air filters on heating or HVAC units every three months, and use CERTIFIED **asthma & allergy friendly®** air filters if possible. (Learn more at: aafa.org/certified)	☐	☐
Install gaskets or use gasketed filters, which can improve filter effectiveness, if possible.	☐	☐
Make sure fans can supply adequate air flow through filters. In some cases, this may require upgrading the fan.	☐	☐
Continue HVAC system maintenance, including filter changes. Suspending maintenance for HVAC systems suspected to be contaminated with COVID-19 is not necessary but be sure additional safety precautions are taken.	☐	☐
When feasible, disinfect filters with a 10% bleach solution or other appropriate disinfectant approved for use against the coronavirus. Filters (disinfected or not) can be bagged and disposed of in regular trash.	☐	☐

How to Create School Spaces That Are Asthma Friendly and Prevent the Spread of the Coronavirus

ENVIRONMENT Recommended Policies and Practices	**Yes**	**No**
Cleaning		
Wear face masks and gloves when cleaning and disinfecting. Keep the area being cleaned as well-ventilated as possible.	☐	☐
Use cleaning products that meet EPA disinfection criteria. (See "Disinfectants for Use Against SARS-CoV-2 (COVID-19)" in the "Resources" section on page 35 for more information.)	☐	☐
Clean surfaces first, and then disinfect. Disinfectants do not clean, and cleaners do not appropriately disinfect.	☐	☐
Disinfect frequently touched surfaces and shared objects after each use or at least daily.	☐	☐
Follow CDC guidance for routine cleaning and disinfection in the school.	☐	☐
Use bleach products sparingly and dilute per manufacturers' guidelines and not while students are in the building/room, if possible.	☐	☐
Use less-irritating cleaners, such as ethyl or isopropyl alcohol, hydrogen peroxide and unscented products, as much as possible. Avoid aerosol cleaners.	☐	☐
Do not allow students to use disinfectant wipes on hard surfaces or themselves.	☐	☐
Tell teachers not to bring in their own cleaning supplies. Only use approved cleaners from custodial staff.	☐	☐

Understanding Asthma

WHAT IS ASTHMA?

Asthma affects more than 25 million Americans – 7.7% of adults and 8.4% of children.[2] It is a chronic disease that causes the airways to become inflamed, making it hard to breathe.

Asthma is one of the most common chronic diseases in children. In 2013, about 13.8 million missed school days due to asthma were reported, making it the top reason for missed school days.[3]

There is no cure for asthma. The best way to manage asthma is to avoid triggers, take medicine to prevent symptoms and prepare to treat asthma episodes if they occur. For asthma management to be fully successful, it should occur at home, school and in the workplace.

ASTHMA IN CHILDREN

According to the CDC, a classroom of about 30 children will have at least three with asthma. Around 3,500 people die each year from asthma (almost 10 per day). More than 190 of those deaths are children.[2] Many of these deaths are avoidable with proper treatment and trigger avoidance.

53.8% of children (age <18 years) with asthma had one or more asthma attacks in the past year.

Source: 2018 National Health Interview Survey (NHIS), National Center for Environmental Health, Centers for Disease and Control Prevention

Even students with mild asthma can have life-threatening attacks or episodes. Mild symptoms can turn into a breathing emergency if not identified and treated quickly. Make sure school staff are trained on how to recognize and treat asthma emergencies.

ASTHMA SYMPTOMS

Common symptoms of asthma include:

- Coughing
- Wheezing (a whistling, squeaky sound when you breathe)
- Shortness of breath
- Breathing that is faster or slower than normal
- Chest tightness or pain

Asthma symptoms in school-age children may also include:

- Coughing that is constant or made worse by viral infections (this symptom is often overlooked)
- Coughing from exercise or cold air
- Chest tightness (children may say their chest hurts or feels funny)
- Fatigue (the child slows down or stops playing)
- Avoiding sports, exercise or social activities

Emergency asthma symptoms can include:

- Asthma that is getting worse quickly
- Asthma quick-relief (rescue) medicines are not helping
- Severe shortness of breath
- Breathing that is faster or slower than normal
- Breathing that may be hard or shallow
- Lots of coughing
- Chest tightness or pain
- Trouble walking or talking due to shortness of breath
- Chest retractions (skin sucks in between or around the neck, chest plate and/or rib bones when inhaling – this is rare in adults)
- Ribs or stomach moving in and out deeply and rapidly
- Expanded chest that does not deflate when you exhale
- Shoulders that are hunched over (posturing)
- Cyanosis, a tissue color change on mucus membranes (tongue, lips, and around the eyes) and fingertips or nail beds – the color appears grayish or whitish on darker skin tones and bluish on lighter skin tones
- Peak flow numbers in the Red "danger" Zone (below 50% of personal best)

If a student or staff member is experiencing any emergency symptoms, call 911 right away. This is a medical emergency.

ASTHMA ACTION PLANS

An Asthma Action Plan[7] is a document with instructions on how to manage a student's asthma. It should be part of the student's 504 plan or individualized health care plan (IHCP). An Asthma Action Plan tells you:

- Instructions on when and how often a student needs to take their asthma medicines
- Signs and symptoms that mean the student's asthma is getting worse
- What to do in an emergency including how to access EMS from inside the school building

Encourage parents to get a copy of their child's Asthma Action Plan and to have school paperwork signed by their child's doctor during the summer before the new school year begins, if possible. With the challenges of COVID-19, it is very likely that paperwork will be submitted later than usual this school year.

An Asthma Action Plan is divided into three zones:

Asthma Green Zone – The student's asthma is under control. They can do daily activities.

Asthma Yellow Zone – This is a warning zone when the student's asthma may be getting worse. If they have a cough, mild wheeze, a cold, chest tightness or pain, or coughing at night, they are in the Yellow Zone. The plan will tell you which medicine they need to take and how to help them get back to the Green Zone.

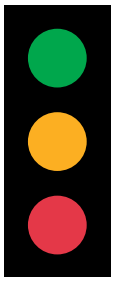
Asthma Red Zone – This is the danger zone. Their asthma is getting worse fast. Their quick-relief medicine isn't working. They may be coughing a lot and have trouble walking, talking, and eating. They may have chest retractions. Their peak flow readings are 50% or less or their personal best. **Give them their quick-relief medicine and get medical help immediately.** It's important!

ASTHMA ACTION PLAN

Asthma and Allergy Foundation of America
aafa.org

Name:	Date:
Doctor:	Medical Record #:
Doctor's Phone #: Day	Night/Weekend
Emergency Contact:	
Doctor's Signature:	

The colors of a traffic light will help you use your asthma medicines.



GREEN means Go Zone!
Use preventive medicine.

YELLOW means Caution Zone!
Add quick-relief medicine.

RED means Danger Zone!
Get help from a doctor.

Personal Best Peak Flow: _____

GO

You have *all* of these:
- Breathing is good
- No cough or wheeze
- Sleep through the night
- Can work & play

Peak flow:
from _____
to _____

Use these daily controller medicines:

MEDICINE	HOW MUCH	HOW OFTEN/WHEN
For asthma with exercise, take:		

CAUTION

You have *any* of these:
- First signs of a cold
- Exposure to known trigger
- Cough
- Mild wheeze
- Tight chest
- Coughing at night

Peak flow:
from _____
to _____

Continue with green zone medicine and add:

MEDICINE	HOW MUCH	HOW OFTEN/ WHEN

CALL YOUR ASTHMA CARE PROVIDER.

DANGER

Your asthma is getting worse fast:
- Medicine is not helping
- Breathing is hard & fast
- Nose opens wide
- Trouble speaking
- Ribs show (in children)

Peak flow:
reading below _____

Take these medicines and call your doctor now.

MEDICINE	HOW MUCH	HOW OFTEN/WHEN

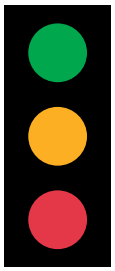
GET HELP FROM A DOCTOR NOW! Your doctor will want to see you right away. It's important!
If you cannot contact your doctor, go directly to the emergency room. DO NOT WAIT.
Make an appointment with your asthma care provider within two days of an ER visit or hospitalization.

PLAN DE ACCIÓN PARA EL ASMA

Nombre:	Fecha:
El doctor/La doctora:	Número de registro médico:
El número de teléfono del doctor o doctora durante el día:	Durante la noche y el fin de semana:
El contacto de emergencia:	
Firma de doctores:	

Asthma and Allergy Foundation of America
aafa.org

Los colores del señal de trafico pueden ayudar usar los medicamentos de asma.



VERDE significa la zona para ir!
Usa medicina preventiva.

AMARILLO significa zona de precaución!
Agrega medicina de alivio rápido.

ROJA significa zona de peligro!
Get help from a doctor.

Mejor flujo máximo personal: _____

VAYA

Tiene *todos* estos:
- La respiración es buena
- No toz o silbido/ resuello
- Duerme durante la noche
- Puede trabajar y jugar

Flujo máximo:
De _____
a _____

Utilice estos medicamentos de control diario:

MEDICINA	CUÁNTO/ QUE CANTIDAD	CON QUÉ FRECUENCIA/ CUÁNDO
PARA ASMA CON EJERCICIO, UTILICE:		

PRECAUCIÓN

Si tiene *alguno* de estos:
- Tos
- Silbido/Resuello leve
- Pecho apretado
- Tos por la noche
- Primeras señales de un resfriado
- Exposición a un desencadenador conocido

Flujo máximo:
De _____
a _____

Continúe con la medicina de la zona verde y añada:

MEDICINA	CUÁNTO/ QUE CANTIDAD	CON QUÉ FRECUENCIA/ CUÁNDO
LLAME A SU DOCTOR O DOCTORA DE ASMA.		

PELIGRO

Su asma está empeorando rápidamente:
- La medicina no esta ayudando
- La respiración es dificil y rápida
- La nariz se abre ampliamente
- Dificultad para hablar

Flujo máximo:
Numeros debajo de/ menos de _____

Tome estos medicamentos y llame a su doctor/doctora ahora.

MEDICINA	CUÁNTO/ QUE CANTIDAD	CON QUÉ FRECUENCIA/ CUÁNDO

OBTEN AYUDA DE UN DOCTOR O DOCTORA AHORA! Su doctor o doctora querrá verle en seguida. Es importante! Si no puede comunicarse con su doctor o doctora, vaya directamente a la sala de emergencia. NO ESPERE.
Haga una cita con su proveedor de cuidado del asma dentro de dos días de una visita de urgencias (ER) o hospitalización.

Asthma-Friendly School Settings

ENVIRONMENTAL CONTROL

Avoiding or reducing asthma triggers plays an important role in managing asthma. Students, teachers and staff alike may experience asthma symptoms when they are exposed to triggers. Trigger reduction strategies can help everyone, even people without asthma, breathe easier.

ASTHMA TRIGGERS

Common triggers found or that occur in schools include:
- Respiratory illness, such the common cold or flu
- Cockroaches
- Rodents
- Mold
- Harsh cleaning chemicals or pesticides
- Personal care products like perfume
- Air fresheners
- Physical activity (exercise)
- Strong emotions like laughing or crying
- Exhaust fumes from idling cars and buses

The triggers listed above may also be present at home. Additional triggers that can be found in the home include stress, first or secondhand tobacco smoke, or emissions from vaping.

Reduce asthma symptoms and episodes by taking steps to eliminate or reduce asthma triggers in your school. Many triggers can be managed with no-cost or low-cost solutions, such as integrated pest management strategies, repairing water leaks to stop the growth of mold, discouraging idling vehicles and switching cleaning products.

The AAFA checklist in this toolkit will help you with controlling triggers in your school. The CDC's Initiating Change: Creating an Asthma-Friendly School also has some information on the importance of asthma-friendly schools. (See the "Resources" section on page 34 for more information on how to access "Integrated Pest Management Resources" and "Initiating Change: Creating an Asthma-Friendly School.")

THE IMPORTANCE OF THE FLU VACCINATION DURING COVID-19

Efforts to reduce the spread of COVID-19, such as stay-at-home and shelter-in-place orders, have led to decreased use of routine preventive medical services, including immunization services.[8] Ensuring that people continue or start getting routine vaccinations during the COVID-19 pandemic is essential for protecting people and communities from vaccine-preventable diseases and outbreaks, including flu. Routine vaccination prevents illnesses that lead to unnecessary medical visits and hospitalizations, which further strain the health care system.[9]

The flu vaccine is very important to reduce the flu because it can help reduce the overall impact of respiratory illnesses in your district, and in turn lessen the burden on the health care system during the COVID-19 pandemic. It is possible to have the flu and COVID-19 at the same time.

A flu vaccine may also provide several individual health benefits, including keeping people from getting sick with the flu, reducing the severity of the illness if they do get the flu, and reducing the risk of a flu-associated hospitalization.[9] Encourage district and school staff and student's families to get the flu shot or nasal spray early. They are usually available in September.

Who Should Get The Flu Vaccine

People with asthma are at high risk of developing serious complications from the flu, even if their asthma is well-controlled. People with asthma already have sensitive and swollen airways, and the flu can increase this swelling. Flu infections are a common asthma trigger for both children and adults.[10]

According to the CDC, flu vaccination is the best protection against flu. The flu vaccine is updated each season to keep up with the changing virus. Immunity wanes after about a year, so a yearly vaccine is recommended for continued protection.

With a few exceptions, all people over age 6 months should get a flu vaccine.

The flu vaccine does not contain the live virus and cannot give you the flu. All school staff and students should get a flu vaccine to avoid the spread of the virus. According to CDC guidelines:

- **Injectable influenza vaccines** (or flu shots) are approved for use in people 6 months and older regardless of whether or not they have asthma or other health conditions. Flu shots have a long-established safety record in people with asthma. If someone has had recent asthma episodes or wheezing, they should get the flu shot.
- **The nasal spray vaccine** (or LAIV) is an option for people 4 years and older if their asthma is under control with no symptoms.
    - Children 2 to 4 years old who have asthma or who have had a history of wheezing in the past 12 months should not get the nasal spray vaccine.
- **For people with an egg allergy**, the injectable and nasal vaccines are considered safe. If you prefer, you can get a recombinant flu vaccine, which is not made with egg. For the 2021-2022 flu season, Flublok Quadrivalent (licensed for use in adults 18 years and older) is the only egg-free vaccine available.[11]

In a few rare cases, some people should not get the flu vaccine.[12]

Encourage parents and guardians to talk to their health care providers about which vaccination option is best for their child. School staff should also talk with their health care provider regarding vaccination options.

Pneumococcal Vaccine

The CDC also recommends that people with asthma be up to date with pneumococcal vaccination to protect against pneumococcal disease, such as pneumonia, meningitis and blood stream infections. Pneumococcal pneumonia is an example of a serious flu-related complication that can cause death.[13]

Encourage parents and guardians to talk to their health care providers about which vaccination option is best for their child. School staff should also talk with their health care providers regarding vaccination options.

COVID-19 (SARS-CoV-2) Vaccines

On Aug. 23, 2021, the Food and Drug Administration (FDA) approved the Pfizer-BioNTech COVID-19 vaccine. It will now be marketed under the name Comirnaty [koe-MIR-nah-tee] for the prevention of COVID-19 disease in people 16 years of age and older. Other COVID-19 vaccines are also available under emergency authorization for people 12 and over. Hopefully, there will be a vaccine approved for children under age 12 soon. Visit aafa.org/covid-vaccine for up-to-date information.

School staff and the parents and guardians of students may be concerned about the safety and efficacy of a vaccine that is new and created and tested so quickly. It will be important for schools to follow upcoming vaccine guidance developed by the CDC and to implement an awareness and educational campaign to encourage staff and students to get the vaccine. The vaccine will be the best way to stop the spread of the new coronavirus and to protect those who are at higher risk for complications.

INDOOR AIR QUALITY

Students and staff spend most of their days inside a school building without the ability to control the air they breathe. They depend on schools to provide the healthiest indoor air quality (IAQ) possible. Allergens, asthma triggers, chemicals and volatile organic compounds (VOCs) are common in many school buildings and create poor IAQ.

Reducing triggers, allergens and irritants is a key part of asthma control. Unhealthy IAQ can lead to more asthma symptoms, which can lead to more missed school days and even hospital stays. Children with uncontrolled asthma will struggle to learn and could fall behind academically.

Schools can make changes to improve IAQ – many of them for little cost. For example, clean with non-scented and less harsh chemicals. To reduce pet dander, don't keep furry pets in the classroom. Fix leaks quickly to reduce the chance of mold. Place CERTIFIED **asthma & allergy friendly®** air cleaners in classrooms with children or teachers with asthma. Improving IAQ not only creates a healthier school, but it promotes better learning as well.

If you do run air cleaners in school rooms, make sure they do not have an ionizer (ozone) function. Or if they do, make sure you can turn the function off. Ionizers and ozone can trigger asthma symptoms and have not been proven to remove the virus that causes COVID-19 from the air.[14]

Teachers and staff should not bring in cleaning or disinfecting products from home to avoid the risk of mixing chemicals. Only district approved and provided products should be used. Children should not be permitted to clean any hard surfaces in the educational space.

These cleaning solutions will kill the virus that causes COVID-19 when used properly:

- Undiluted rubbing alcohol (at least 60% ethyl alcohol or 70% isopropyl alcohol) – Leave on the surface for at least 30 seconds.[15]
- Hydrogen peroxide 3% concentration – Leave on the surface for 1 minute.[16]
- Bleach (5 tablespoons or 1/3 cup per gallon of water OR 4 teaspoons per quart of water) with a sodium hypochlorite concentration of 5%-6% – Leave the on surface for 1 minute.[15]

For a list of more cleaners, see the full list of EPA-registered disinfectants for use against the coronavirus. Keep in mind that bleach is a common asthma trigger. (See "Disinfectants for Use Against SARS-CoV-2 (COVID-19)" in the "Resources" section on page 35.)

Running your school's HVAC system may also help control the spread of the coronavirus. It can reduce the amount of SARS-CoV-2 (the virus that causes COVID-19) in the air.[17]

ACCESS TO QUICK-RELIEF ASTHMA MEDICINE

Quick-relief or "rescue" asthma medicine is used at the first sign of symptoms to treat asthma episodes (attacks) and avoid breathing emergencies. Albuterol is the most common type of quick-relief medicine. It works quickly to open the airways. Certain controller or preventative medicines can be used with or instead of albuterol to manage sudden symptoms. Check the student's Asthma Action Plan for instructions.

Access to emergency medicine during an asthma episode or attack is critical for staff and students. Symptoms can start suddenly or get worse quickly if asthma is not controlled. Because of this, people with asthma need immediate access to their quick-relief medicine. They need to carry their quick-relief medicine with them at all times according to state guidelines and in consultation with the school nurse.

Quick-relief medicine needs to be easily accessible to students throughout the school day, while riding on school-based transportation, and during before- and after-school activities. Staff managing these activities also need to have access to Asthma Action Plans and spacers/chambers. Students in every state have the right to self-carry their medicine. Some children, especially younger children, likely will need help and supervision when administering the medicine.

According to AAFA's 2019 State Honor Roll Report of Asthma and Allergy Policies for Schools (statehonorroll.org), all 50 states and the District of Columbia have policies that state all students have the right to self-carry and self-administer prescribed asthma medicine. Encourage parents/guardians to talk to their doctors to ask if their students can carry and take their medicine without help from a school nurse or trained staff. Inform the parents/guardians of your state's and school district's specific policies and requirements. Provide the correct authorization forms needed for students to self-carry and self-administer.

You may also ask/require parents/guardians send a second inhaler to keep at the school with the child. This can be helpful if the child tends to forget to bring their medicine or is very young and is not mature enough to self-carry. See page 31 for a sample letter you can send home to parents requesting a second inhaler and spacer or valved holding chamber, if the child uses one.

STOCKING UNDESIGNATED ALBUTEROL

Currently, 15 states have laws or guidelines that allow schools to keep stock albuterol to treat students and staff who have asthma episodes or attacks. Having albuterol in stock is important to students who may not have their quick-relief medicine with them or have an asthma attack for the first time. To find out if your state allows albuterol stocking, check AAFA's State Honor Roll Report. Schools may choose to stock metered dose inhalers (MDIs) or liquid albuterol to be used with a nebulizer. Tell parents/guardians about your school's stock albuterol policies.

USING INHALERS AND SPACERS INSTEAD OF NEBULIZERS TO PREVENT THE SPREAD OF THE CORONAVIRUS

According to the CDC, people with asthma should use inhalers with spacers (with or without a face mask, according to each student's personal treatment plan) instead of nebulizer treatments whenever possible during the COVID-19 pandemic. Based on limited data, the use of asthma inhalers (with or without spacers or face masks) does not appear to release coronavirus particles into the air.

A spacer or valved holding chamber is recommended when using an MDI. It is best for students to have two spacers, one for home and one for school. If a student does not have their own spacer, consider using cardboard spacers, disposable mouthpieces or a plastic Inflocone™. (See "Where to Find Asthma Spacers and Chambers" in the "Resources" section on page 35.) The American Lung Association's Model Policy for School Districts: Stock Bronchodilators recommends using inhalers with disposable spacers or mouthpieces. Using an MDI with a disposable spacer can be just as effective as using a nebulizer. It may also be more cost-effective.[18]

EXERCISE

It is important that students with asthma exercise to maintain overall good health. But exercise can be a trigger and should be expected in every student with asthma.

A long, slow warm-up and cool down can help prevent asthma symptoms during exercise. Physical activity that includes time to take breaks can help as well. The student's health care provider may recommend that the student use a quick-relief inhaler 15 to 30 minutes before exercise to help avoid asthma symptoms. Work with the student's parents or guardians to ensure the order is on file or listed on the Asthma Action Plan.

Learn how to identify, diagnose and manage exercise-induced asthma at aafa.org/exercise-induced-asthma.

AAFA's Tackle Asthma Playbook can help kids with asthma learn how to be active and healthy at aafa.org/tackle-asthma.

SEPTEMBER ASTHMA EPIDEMIC

When kids and staff return to school in late August and early September, they are exposed to asthma and allergy triggers in their school buildings, as well as respiratory viruses. Ragweed pollen and mold spores are also high this time of year. This leads to what is called the *September Asthma Epidemic* – an annual spike in emergency room visits for asthma typically around the third week of September. This is also known as *Asthma Peak Week*.

Schools should be aware of the heightened risk of asthma episodes during September.

COVID-19 PROTOCOLS

To protect students and staff from the spread of the coronavirus, schools will need to develop and implement new health and safety protocols.

School Nurses

School nurses are frontline health care providers and are critical to safely reopening schools. AAFA stands with the National Association of School Nurses (NASN) in advocating for at least one dedicated school nurse in every school, especially during the coronavirus pandemic. School nurses are critical when watching for and monitoring symptoms and administering medicines. They can support the psychosocial needs of students while also being culturally aware. They work closely with their public health colleagues to track data, follow best practices and conduct contact tracing. (See "Contact Tracing" in the "Resources" section on page 33.)

Emotional and Mental Health Support

Providing emotional and mental health support for students is crucial to ensuring a supporting learning environment for all students, especially during the current pandemic. Every school should have a dedicated school nurse, counselor, or social worker available to help students during school hours.

Students have been expected to adjust to online learning and the feelings of isolation that come with not being able to socialize with friends or visit family members. Some students may have served as caregivers or lost loved ones to COVID-19. This uncertainty, anxiety and grief can all take a toll on a student's mental and emotional health. The stress, anxiety, and grief caused by the COVID-19 may exacerbate asthma symptoms, especially in students with poorly controlled asthma.

Students may show less interest in learning or display uncharacteristic displays of anger, frustration, or sadness.

Students may react differently to stress and grief based on their age. According to the CDC, adolescents may also experience grief in ways that are both similar to and different than children and adults. Adolescents may experience significant changes in their sleep patterns, isolate themselves more, frequently appear irritable or frustrated, withdraw from usual activities, or engage more frequently with technology. It is important for parents or caregivers to engage with their adolescents over their grief to promote healthy coping and acceptance. Parents may also need to obtain mental health services for the adolescent and family to deal with grief.[19]

Improving Air Ventilation and Quality

The American Rescue Plan provided $122.8 billion in the Elementary and Secondary School Emergency Relief Fund for all Title 1 schools to repair and improve ventilation and IAQ. See "The American Rescue Plan" section on page 36 of this toolkit.

To ensure proper air ventilation and quality, schools should use purifiers and cleaners that are appropriate for the size of the room by evaluating the clean air delivery rate (CADR). If the CADR is too low for a room, it will be ineffective. Schools should also evaluate air filters on Minimum Efficiency Reporting Values (MERVs), which report a filter's ability to capture larger particles. The general rule of thumb is the higher the MERV, the more effective the filter is at trapping certain particles, with HEPA filters having an MERV of more than 13.[20] Analyses suggest that portable HEPA filters with CADR > 250 standard cubic feet per minute (SCFM) can effectively remove fine particles that may contain viruses in typical K-12 classrooms.[21]

AAFA recommends keeping HVAC systems running as much as possible to reduce the airborne concentrations of the coronavirus and reduce the risk of transmission through the air. Additionally, it is important to maintain a schedule to evaluate and change air filters since effectiveness declines as filters age. This schedule can be determined by manufacturers' recommendations, pressure drop measurements, or on a time schedule (e.g., once every 3 months). (The University of California Davis offers a video called "Importance of Ventilation in Schools" found in the "Resources" section on page 34.)

The risks associated with handling filters contaminated with coronaviruses in ventilation systems under field-use conditions have not been evaluated. However, it is recommended that HVAC system maintenance, including filter changes, continue but with additional safety precautions.[17] Workers performing maintenance and/or replacing filters on any ventilation system should wear appropriate personal protective equipment (PPE), including a properly-fitted respirator (N95 or higher), eye protection (safety glasses, goggles, or face shield) and disposable gloves. When tasks are completed, maintenance personnel should immediately wash their hands with soap and water or use an alcohol-based hand sanitizer.

Physical Distancing

Schools should ensure appropriate physical distancing in classrooms, common areas, administrative offices, and on transportation to and from school.

In elementary, middle and high school, space chairs and desks a minimum of 3 feet apart when students are universally masked. Place chairs and desks 6 feet apart when students are not universally masked, or when high school students cannot be kept together with their peer group throughout the day. Learn more about CDC's physical distancing guiding for schools at cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html. Desks should all face one direction, or all students should sit on one side of a table to make sure they are not facing each other directly. Also consider staggering attendance if there is not enough space in classrooms to safely distance students and staff.

During school transportation, open or crack windows in buses and other forms of transportation, if doing so does not post a safety risk. Keeping windows open a few inches improves circulation.

Handwashing: Access to Bathrooms and Handwashing Stations

Even though COVID-19 is spread primarily through airborne transmission, handwashing remains one of the most effective ways to prevent the spread of germs and illness. The CDC recommends that schools teach and reinforce handwashing with soap and water for at least 20 seconds. They also suggest schools monitor handwashing among students and staff. Good hand hygiene is critical to slow the spread of respiratory infections and help ensure the health and safety of students with asthma and other high-risk conditions.[22]

Because of COVID-19, schools need to provide greater access to handwashing. AAFA recommends your school set aside time throughout the day to allow supervised visits for students to use the restroom and/or handwashing stations in the classroom or elsewhere in the school. To ensure safety in restrooms, implement educator supervision/hall-bathroom monitors or assign parent assistant leaders (PALs) to monitor the restrooms.

Students should wash their hands:

- When they arrive at school
- Before and after eating
- After blowing their nose, coughing or sneezing

Where possible, AAFA recommends increasing the number of handwashing stations in classrooms and throughout the school. This can create more opportunities for students and staff to wash their hands.

Review proper handwashing technique as recommended by the CDC with students and staff daily. Post signs to remind students and staff about the correct way to wash their hands. Post them in restrooms, by handwashing stations and other high-traffic areas. As appropriate, especially in elementary schools, monitor student handwashing and help as needed.

When soap and water are not available, the CDC recommends using hand sanitizer with at least 60% ethyl alcohol or 70% isopropyl alcohol. Like handwashing, go over proper usage with students and staff.[23]

Apply the amount of hand sanitizer as directed on the label. Rub it over all surfaces of hands and fingers for at least 20 seconds until hands are dry. Do not wipe off excess.

Hand sanitizers can be dangerous if ingested. Use should be monitored by staff, especially in pre-K/elementary and certain special needs school settings.[24]

Avoid hand sanitizer that contains methanol and 1-propanol. These ingredients are toxic and should not be applied to skin. Because of the spread of the coronavirus, several toxic hand sanitizers are now on the market. The Food and Drug Administration (FDA) has issued a warning about dozens of harmful hand sanitizers. Some products have been found to contain methanol and 1-propanol but are labeled ethanol. Some products are under recall from the manufacturing companies. See the FDA website at fda.gov for a list of hand sanitizers to avoid.

Face Masks

AAFA supports recent guidance from the CDC (July 2021) recommending universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status. Studies have shown people can spread the coronavirus when they do not have symptoms (pre-symptomatic or asymptomatic). The purpose of wearing a mask is to keep someone with the virus from spreading it to other people. Wearing masks – along with the vaccine, physical distancing, proper hygiene, and improving air ventilation – is an important part of a layered approach to prevent the spread of the virus.

According to the CDC, the coronavirus that causes COVID-19 spreads when an infected person breathes out small particles and droplets that contain the virus.[25] Other people can then breathe in virus from the air around them, or have virus land on their eyes, nose, or mouth if someone coughs or sneezes close by. People have a greater chance of getting infected if they are closer than 6 feet apart from an infected person.

The CDC and the World Health Organization (WHO) recommend a layered approach. Physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning your hands, and coughing into a bent elbow or tissue are important steps to reducing the spread of COVID-19. The WHO recommends wearing a fabric mask that allows you to breathe while talking and walking quickly.[26]

People who are not fully vaccinated should wear masks in indoor public places or in crowded outdoor settings. Children under age 2 should not wear a mask.[27]

AAFA recommends that people with asthma try to find a face mask that is comfortable and breathable. People with asthma can wear masks and it does not impact their oxygen levels.

Masks should fit well and allow for the person wearing it to be able to breathe and walk at the same time. Avoid elastic ear loops if there is a latex allergy.

The CDC recommends:

- Masks with multiple layers of fabric
- Masks that fit snugly against the sides of your face without any gaps
- Masks that cover your nose, mouth, and chin
- Masks with a metal strip or nose guard to keep air from leaking out
- Using a mask fitter or brace over a disposable or cloth mask to prevent air leaking out of the sides and top
- Wearing one disposable mask underneath a cloth mask (the second mask should push the edges of the inner mask against your face)
- Knot and tuck ear loops of a three-ply mask[28]

N95 and KN95 Masks or Respirators

NIOSH-approved N95 respirators labeled "surgical" or "medical" should be prioritized for health care personnel, such as school nurses providing direct patient care. When supplies are available, you may consider wearing an N95 mask or respirator if you interact with large numbers of the public, or are at increased risk for severe illness. N95 and KN95 masks should be properly fitted. Although respirators may be available in smaller sizes, they are typically designed to be used by adults in workplaces, and therefore have not been tested for broad use in children. KN95 masks provide an alternative to N95 respirators and are recommended for non-healthcare settings for non-medical use. People who are at increased risk of COVID-19 illness, teachers, staff or other adults in the indoor school setting may prefer KN95 masks. Not all KN95 masks meet the similar requirements for N95 masks. Find a reputable source to purchase KN95 masks. Do not use KN95 masks with exhalation valves because they can allow the virus to escape.

If staff members or students are having trouble wearing masks, suggest they try a different fabric or fit. Clear masks or cloth masks with a clear plastic panel are an alternative type of mask for people who interact with young children or students learning to read, or people with disabilities. Some types of face coverings are not effective at preventing the spread of the coronavirus. Bandannas cannot fit tightly enough against your face. If you have a mask with a vent or valve, check the inside of the mask. If you see fabric inside that covers the valve or vent, then the mask is OK to wear. If you see the vent or valve from the inside of the mask, you should not wear the mask because droplets from your mouth and nose can pass through the valve as you exhale.

Breaks should be offered often for students to remove face masks when students can physically distance 6 feet apart, preferably outside.

How the face mask is worn, removed and cleaned is important. It should fully cover the mouth, nose, chin and beard. Make sure there are no gaps between the mask and the skin. The CDC offers guidance on how to choose and wear a face mask.

Follow these steps when putting on and removing a face mask:

1. Wash your hands or use hand sanitizer before putting on a face mask.
2. Avoid touching the face mask while using it.
3. If your face mask gets damp, replace it with a clean one.
4. Remove the mask by the ear loops or ties, trying to not touch the parts of the mask that touch your face.
5. Wash your hands or use hand sanitizer.
6. Wash fabric face masks in hot, soapy water right away. Throw away disposable masks immediately.

The school nurse should talk with the parents or guardians of students with asthma to discuss which face mask will work best for that student's individual needs.

AAFA's blog "What People With Asthma Need to Know About Face Masks During the COVID-19 Pandemic" at aafa.org/blog provides updated guidance on wearing face masks.[29]

Face Masks for Younger Students

Evidence is now showing how young students are contributing to the transmission of the coronavirus. Language development in this age group is crucial, and their compliance with wearing a face mask may be understandably low.[30]

Exemptions for Face Masks

The ability of students with special needs, including autism and developmental delays, to wear a face mask should be reviewed on an individual basis.

School nurses should discuss a student's ability to wear a face mask with the student's parents or guardians. Determine if a note from the student's health care provider stating they can or cannot wear a mask is needed.

Symptom Monitoring

Students and staff should still stay home at the first sign of symptoms or illness. Strongly encourage staff and students who are sick, or who have recently had contact with a person with COVID-19, to stay home.

According to the CDC and the World Health Organization (WHO), common COVID-19 symptoms can include:[31]

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Other symptoms reported are:

- Pinkeye
- Painful blue or purple lesions on toes (COVID toes)
- Hives or rashes

Most children tend to have mild COVID-19 symptoms that are similar to a cold. They may have:

- Fever
- Cough
- Vomiting and diarrhea

Symptoms that require emergency treatment immediately include:

- Trouble breathing or shortness of breath
- Pain or pressure in the chest that doesn't go away
- Newly confused or can't wake up
- Cyanosis, a tissue color change on mucus membranes (tongue, lips, and around the eyes) and fingertips or nail beds – the color appears grayish or whitish on darker skin tones and bluish on lighter skin tones

According to the CDC, this list may not include all symptoms. If students or staff have any severe or concerning symptoms, staff who will have contact with the student should put on a mask and other necessary PPE and isolate the student. Get details from the student and call their parents, guardian, or caregiver. But if symptoms are serious or life-threatening, contact emergency services first. Clean the areas where the student was and talk with administration about next steps.[32]

There are many similar symptoms among COVID-19, a cold, the flu, asthma and seasonal allergies. Use AAFA's "Is It COVID-19, the Flu, a Cold, Allergies, or Asthma?" symptom comparison chart on pages 29-30 to help determine if staff or a student may be feeling symptoms of asthma, allergies or a respiratory illness like COVID-19. If staff or students have a fever and a cough, they should call their doctor and not attempt to go to school. The American Academy of Pediatrics also recommends that schools set aside a room to be able to isolate a student who may become ill during the school day. This may be a requirement for your state. Having a second separate room where students can isolate to take asthma medications is ideal but may not be possible.

Symptoms of asthma and COVID-19 may also overlap, such as cough and shortness of breath. The CDC recommends that students experiencing asthma attacks not attend school without approval by a doctor. If the student does not have a doctor or health insurance, the school nurse or social services can help find low-cost or free access to medical care.

Print AAFA's chart "Is It COVID-19, the Flu, a Cold, Allergies, or Asthma?" chart (available in English and Spanish) on cardstock and hand it out to staff, parents and students to remind them about how to prevent the spread of the coronavirus.

Stop the Spread of COVID-19

GET A VACCINE.

WEAR A MASK.

STAY HOME IF YOU'RE SICK.

WASH YOUR HANDS often with soap and water for 20 seconds.

USE HAND SANITIZER with at least 60% ethyl alcohol or 70% isopropyl alcohol when handwashing is not available.

STAY 6 FEET APART, if possible.

aafa Asthma and Allergy Foundation of America

aafa.org/covid19

IS IT COVID-19, THE FLU, A COLD, ALLERGIES, OR 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 or trouble breathing	Common	No**	No**	No**	Common
Chest tightness/ pain	Sometimes	No**	No**	No**	Common
Rapid breathing	Rare	No**	No**	No**	Common
Sneezing	No	Common	No	Common	No***
Runny or stuffy nose	Common	Common	Sometimes	Common	No***
Sore throat	Common	Common	Sometimes	Sometimes (usually mild)	No***
Fever	Common	Short fever period	Common	No	No
Feeling tired and weak	Common	Sometimes	Common	Sometimes	Sometimes
Headaches	Common	Rare	Common	Sometimes (related to sinus pain)	Rare
Body aches and pains	Common	Common	Common	No	No
Diarrhea, nausea and vomiting	Common	Rare	Sometimes	No	No
Chills	Common	No	Sometimes	No	No
Loss of taste or smell	Common	Rare	Rare	Sometimes	No

If you have any cold or flu-like symptoms, talk with your doctor, get tested, and stay home.

Your symptoms may vary. †Information is still evolving. Many people may not have symptoms. *If your quick-relief medicine is not helping your asthma symptoms, or if you are in the Red Zone on your Asthma Action Plan, call your health care provider or seek medical attention immediately. **Allergies, colds and flus can all trigger asthma which can lead to shortness of breath, chest tightness/pain and rapid breathing. COVID-19 is the only one associated with shortness of breath on its own. ***If you have allergic asthma, you may have symptoms of both asthma and allergies at the same time.

Sources: Asthma and Allergy Foundation of America, World Health Organization, Centers for Disease Control and Prevention.

edited 8/3/21 • aafa.org/covid19

Detener la propagación del COVID-19

CONSIGUE UNA VACUNA.

CUBRÁSE LA BOCA Y LA NARIZ CON UNA MASCARILLA DE TELA.

QUÉDESE EN SU CASA SI ESTÁ ENFERMO.

LÁVESE LAS MANOS con frecuencia y con agua y jabón durante 20 segundos.

USE GEL DESINFECTANTE por lo menos 60% alcohol etílico o 70% alcohol isopropílico si no pueda lavarse las manos.

Si es posible, **MANTENGA UNA DISTANCIA DE AL MENOS 6 PIES (2 METROS) DE OTROS.**

aafa Asthma and Allergy Foundation of America

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¿PUEDE SER EL COVID-19, LA GRIPE, UN RESFRIADO, ALERGIAS O ASMA?

Síntomas	Coronavirus† (COVID-19) Los síntomas varían de leves a graves.	Resfriado inicio gradual de los síntomas	Gripe inicio abrupto de los síntomas	Alergias temporadas inicio abrupto de los síntomas	Asma inicio gradual o abrupto de los síntomas
Duración de los síntomas	7-25 días	Menos de 14 días	7-14 días	Varias semanas	Los síntomas pueden aparecer rápidamente o durar horas o más.*
Tos	Común (normalmente seca)	Común (leve)	Común (normalmente seca)	Raro (normalmente seca a menos que desencadene asma)	Común (puede ser una tos seca o productiva)
Sibilancia	No	No**	No**	No**	Común
Falta de aire o dificultad para respira	Común	No**	No**	No**	Común
Dolor/presión en el pecho	A veces	No**	No**	No**	Común
Respiración rápida	Raro	No**	No**	No**	Común
Estornudos	No	Común	No	Común	No***
Congestión o goteo nasal	Común	Común	A veces	Común	No***
Dolor de garganta	Común	Común	A veces	A veces (normalmente leve)	No***
Fiebre	Común	Corto período de fiebre	Común	No	No
Fatiga o debilidad	Común	A veces	Común	A veces	A veces
Dolor de cabeza	Común	Raro	Común	A veces (relacionado con dolor sinusal)	Raro
Dolor corporal	Común	Común	Común	No	No
Diarrea, náusea y vómitos	Común	Raro	A veces	No	No
Escalofríos	Común	No	A veces	No	No
Pérdida del sentido del gusto u olfato	Común	Raro	Raro	A veces	No

Si tiene síntomas de resfriado o gripales, habla con su doctor, hágase una prueba y quédese en casa. Sus síntomas pueden variar.
†La información sigue evolucionando. Muchas personas pueden contagiarse sin mostrar síntomas. *Si su medicamento de alivio rápido no mejora sus síntomas de asma, o si Ud. está en la Zona Roja en su Plan de Acción para el Asma, llame a su proveedor de atención médica o busque atención médica de inmediato. **Las alergias, los resfriados y la gripe pueden desencadenar asma, lo cual puede provocar falta de aire, dolor o presión en el pecho y respiración rápida. El COVID-19 es la única enfermedad en esta lista que por sí sola puede provocar la falta de aire. ***Si Ud. tiene asma alérgica, puede tener síntomas de asma y alergias a la misma vez.
Fuentes: Asthma & Allergy Foundation of America, World Health Organization, Centers for Disease Control & Prevention
edited 8/3/21 • aafa.org/covid19

Sample Letter Asking Parents for Second Inhaler and Spacer

Dear _____ (parent/guardian name),

My name is _____, and I am the school nurse at _____ (school name). I am writing you because your child, _____ (student's name), is a student at our school, and our records show they have asthma.

Keeping asthma well-controlled is more important than ever. Asthma symptoms can happen anywhere, including during the school day or during before/after school activities.

Quick-relief ("rescue") asthma medicines (albuterol or other quick-relief meds) should be available for your child to use at home, school and any other place your child may visit. We recommend students have a quick-relief inhaler that is only for school use throughout the year, along with a written Asthma Action Plan that explains which medicines your child takes and how to manage symptoms. I have attached our school's approved Asthma Action Plan you can have your child's doctor fill out.

If you do not have an extra quick-relief inhaler on hand, please ask your doctor for a prescription for an extra inhaler to be stored at school. Or if your child is able to carry and use their medicine correctly on their own, have them bring their inhaler to and from school. Due to the coronavirus, nebulizers will not be used in our school unless absolutely necessary since they can spread the virus into the air.

Also, due to the coronavirus, it would be best if your child also had their own spacer or valved holding chamber and peak flow meter at school so students do not have to share. Talk with your child's doctor and insurance company to make sure they will cover two devices: one for home and one for school.

Here is a list of what to ask your child's doctor to provide for this school year:

- An updated written Asthma Action Plan
- A quick-relief inhaler dedicated for school use only
- A spacer or valved holding chamber dedicated for school use
- A peak flow meter dedicated for school use

Contact [insert name of school nurse] if you are having difficulty getting any of these items on the list.

Doctors' offices get very busy at the start of the school year, so the sooner you ask for these items, the easier it will be to get them. Having these items will help us manage your child's asthma while they are in school.

Sincerely,

Resources

AAFA RESOURCES

Asthma Overview – aafa.org/asthma

School Resources – aafa.org/school

Asthma Action Plans – aafa.org/actionplan

Exercise-Induced Asthma – aafa.org/exercise-induced-asthma

Tackle Asthma Playbook – aafa.org/tackle-asthma

State Honor Roll of Asthma and Allergy Policies for Schools – statehonorroll.org

Improving Inhaler Technique – community.aafa.org/blog/improper-inhaler-use-can-affect-asthma-control

September Asthma Epidemic and Asthma Peak Week

September Asthma Epidemic – community.aafa.org/blog/September-Asthma-Epidemic

Brace Yourselves: The Biggest Week for Asthma Attacks Is Coming – community.aafa.org/blog/September-Asthma-Peak-brace-yourselves-the-biggest-week-for-asthma-attacks-is-coming

Schools Can Be a Major Source of Asthma and Allergy Triggers for Students and Teachers – community.aafa.org/blog/schools-can-be-a-major-source-of-asthma-and-allergy-triggers-for-students-and-teachers

COVID-19 Guidelines for Schools and the Impact on Kids With Food Allergies – community.kidswithfoodallergies.org/blog/covid-19-guidelines-for-schools-and-the-impact-on-kids-with-food-allergies-and-asthma

COVID-19

Coronavirus (COVID-19): What People With Asthma Need to Know – aafa.org/covid-19

What People With Asthma Need to Know About Face Masks During the COVID-19 Pandemic – community.aafa.org/blog/what-people-with-asthma-need-to-know-about-face-masks-and-coverings-during-the-covid-19-pandemic

The COVID-19 Vaccine: The Latest Information for People With Asthma and Allergies – community.aafa.org/blog/the-covid-19-vaccine-what-we-know-so-far

Protecting Your Hands From Eczema During Coronavirus and Flu Outbreaks – community.aafa.org/blog/eczema-wash-hands-coronavirus-covid19-prevention

Please Don't Stop Taking Your Asthma Medicines Due to the Coronavirus – a guest blog post from Dr. Mitchell Grayson – community.aafa.org/blog/please-don-t-stop-your-asthma-medicines-an-editorial-from-dr-mitchell-grayson-on-coronavirus-covid-19

Why Healthy Indoor Air Quality Is Important When Spending More Time Indoors Due to COVID-19 – community.aafa.org/blog/why-healthy-indoor-air-quality-is-important

Cleaning Your Hands With Soap Vs. Hand Sanitizer: What Is Best to Protect Yourself From COVID-19 and Other Illnesses? – community.aafa.org/blog/cleaning-your-hands-with-soap-vs-hand-sanitizer-what-is-best-to-protect-yourself-from-covid-19-and-other-illnesses

RESOURCES FOR SCHOOL NURSES

Asthma Management Education Online, an asthma education course for nurses and respiratory therapists – aafa.org/ameo

National Association of School Nurses – nasn.org

Hand Sanitizers: Keep Children Safe from Poisoning Risk – healthychildren.org/English/safety-prevention/at-home/Pages/Keep-Hand-Sanitizer-Out-of-Childrens-Reach.aspx

FDA Updates on Hand Sanitizers Consumers Should Not Use – fda.gov/drugs/drug-safety-and-availability/fda-updates-hand-sanitizers-consumers-should-not-use

Contact Tracing (CDC) – cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing/index.html

VIDEOS, INFOGRAPHICS, POSTERS AND RESOURCES ON HOW TO WEAR A MASK

World Health Organization Coronavirus disease (COVID-19) advice for the public: When and how to use masks – who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks?gclid=Cj0KCQjwudb3BRC9ARIsAEa-vUtBbAUlyoGWmAb4h2pqeXEXJPk3w2RJVPFfT_qJBiJVHij4i-MH3sUaAjNcEALw_wcB

How to Wear Cloth Face Masks (CDC) – cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html

How to Safely Wear and Take Off a Mask (CDC) – cdc.gov/coronavirus/2019-ncov/downloads/cloth-face-covering.pdf

COVID-19 AND REOPENING GUIDANCE FOR SCHOOLS

Schools and Child Care Programs - Plan, Prepare, and Respond (CDC) – cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html

COVID-19 Planning Considerations: Guidance for School Re-entry (American Academy of Pediatrics) – services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools

COVID-19 FAQs for Administrators, Teachers, and Parents – cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools-faq.html

Implementing COVID-19 Temperature Checks (The National Law Review) – natlawreview.com/article/implementing-covid-19-temperature-checks-light-cdc-s-and-osha-s-silence-what

COVID-19 Resources (National School Board's Association) – community.nsba.org/covid-19

School Reopening Checklist (CDC) – cdc.gov/coronavirus/2019-ncov/community/schools-childcare/Schools-Decision-Tree.pdf

COVID-19 Recovery: Reopening Guidance (Missouri School Board Association) – ams.embr.mobi/Documents/DocumentAttachment.aspx?C=ZfON&DID=GJGDM

Guidelines for Reopening Schools from the AASA COVID-19 Recovery Task Force (The School Superintendents Association – AASA) – aasacentral.org/guidelines-for-reopening-schools

Return to School Roadmap (Opportunity Labs) – returntoschoolroadmap.org/

A Blueprint for Back to School (American Enterprise Institute) – aei.org/research-products/report/a-blueprint-for-back-to-school

Guidelines for Re-entry into the School Setting During the Pandemic: Managing the Social-Emotional and Traumatic Impact (North American Center for Threat Assessment & Trauma Response – NACTATR) – nactatr.com/news/guidere-entry.html

Seven Steps to Sending Elementary Kids Back to School and Parents Back to Work (The School Superintendents Association – AASA) – aasa.org/policy-blogs.aspx?id=44725&blogid=84002

RESOURCES FOR SCHOOL SUPPORT STAFF

Guidance for School Bus Drivers (American Federation of Teachers) – aft.org/sites/default/files/covid19_info_buscleaning.pdf

Guidance for School Custodians (American Federation of Teachers) – aft.org/sites/default/files/covid19-tips-custodians032320.pdf

Guidance for School Support Staff (American Federation of Teachers) – aft.org/sites/default/files/covid19-essential-supportstaff.pdf

Guidance for Environmental Services (American Federation of Teachers) – aft.org/sites/default/files/covid19_evs_cleaningchecklist.pdf

Coronavirus (COVID-19) tips (Nemours Children's Health System) – kidshealth.org/en/parents/coronavirus-teachers.html

Guidance for School Custodians (New York Department of Education) – uft.org/sites/default/files/attachments/coronavirus-updated-cleaning.pdf

Guidance for School Custodians (United Federation of Teachers) – uft.org/news/updated-coronavirus-cleaning-protocol-custodial-engineers

INDOOR AIR QUALITY (IAQ) RESOURCES

Information and Referral Clearinghouse (Healthy School Network) – healthyschools.org/Clearinghouse

IAQ Problem Solving Tool (EPA) – epa.gov/iaq-schools/indoor-air-quality-problem-solving-tool

Integrated Pest Management Resources (EPA) – epa.gov/managing-pests-schools/pest-control-school-environment

Air Cleaners and Air Filters in the Home (EPA) – epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home

Indoor Air Quality Tools for Schools: Preventive Maintenance Guidance Documents (EPA) – epa.gov/iaq-schools/indoor-air-quality-tools-schools-preventive-maintenance-guidance-documents

ASHRAE Issues Statements on Relationship Between COVID-19 and HVAC in Buildings – ashrae.org/about/news/2020/ashrae-issues-statements-on-relationship-between-covid-19-and-hvac-in-buildings

Initiating Change: Creating an Asthma-Friendly School (CDC) – cdc.gov/healthyschools/asthma/creatingafs/index.htm

Importance of Ventilation in Schools (UC Davis Energy) – youtu.be/F9hB9BgonHs

Ventilation in Schools and Childcare Programs - How to Use CDC Building Recommendations in Your Setting (CDC) - cdc.gov/coronavirus/2019-ncov/community/schools-childcare/ventilation.html

ASTHMA DEVICES, FACE MASKS, AND PERSONAL PROTECTION EQUIPMENT (PPE)

Model Policy for School Districts: Stock Bronchodilators – disposable spacers or disposable mouthpieces (American Lung Association) – lung.org/getmedia/92bd8d3f-c5ca-46c0-9063-9d5719ec690b/model-policy-for-school.pdf

Using Personal Protective Equipment (PPE) (CDC) – cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

World Health Organization Coronavirus disease (COVID-19) advice for the public: When and how to use masks (WHO) – who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

Cloth Face Coverings for Children During COVID-19 (American Academy of Pediatrics) – healthychildren.org/English/health-issues/conditions/chest-lungs/Pages/Cloth-Face-Coverings-for-Children-During-COVID-19.aspx

Cleaning Your Respirator (American Federation of Teachers) – aft.org/sites/default/files/covid19_decontamination-filters.pdf

Use of Face Shields (American Federation of Teachers) – aft.org/sites/default/files/covid19_faceshields.pdf Face Shields

Cloth Face Coverings (American Federation of Teachers) – aft.org/sites/default/files/covid19_clothfacecoverings.pdf

What to Do About Respirator Shortages (American Federation of Teachers) – aft.org/sites/default/files/covid19_action-respirators.pdf

Emergency Management, School Safety & Crisis Planning (The School Superintendents Association – AASA) – connect.aasa.org/communities/community-home?CommunityKey=77b6b3e9-aa56-43d2-bbe3-df27ff284713

Where to Find Asthma Spacers and Chambers (AAFA does not endorse these products.)

macgill.com/products/respiratory/peak-flow-meters-spacers/liteaire-dual-valved-holding-chamber.html

schoolnursesupplyinc.com/Disposable-Spacer-25Pkg_p_6603.html

mms.mckesson.com/product/1030598/Alliance-Tech-Medical-1357050

CLEANING

Disinfectants for Use Against SARS-CoV-2 (COVID-19) (EPA) – epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19

Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes (CDC) – cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html

Green Cleaning and Healthy Products (Healthy Schools Network) - healthyschools.org/Cleaning-For-Healthy-Schools

COVID-19 Hygiene & Cleaning Procedures (New York Department of Health) – uft.org/sites/default/files/attachments/coronavirus-cleaning-guidelines.pdf

What Cleaning Supplies Will Help Combat COVID-19? (University of California San Diego) – youtube.com/watch?v=tW-Gj4c35yk

Safer Choice Labeled Products in Action: Cleaning a School Desk (EPA) – youtube.com/watch?v=X0O5B4gMOrI

Using Chlorine Bleach Safely in the School Environment (American Chemistry Council) – youtube.com/watch?v=maTvXz0ayUc

Mayo Clinic Q&A Podcast: How to Clean During COVID-19 (Mayo Clinic) – newsnetwork.mayoclinic.org/discussion/mayo-clinic-qa-podcast-how-to-clean-during-covid-19

AMERICAN RESCUE PLAN FUNDING FOR SCHOOLS

The American Rescue Plan provided $122.8 billion in the Elementary and Secondary School Emergency Relief Fund for all Title 1 schools. This funding can be used for:

1. School facility repairs and improvements
2. Inspection, testing, maintenance, repair, and upgrade projects (including HVAC and ventilation)
3. Developing strategies and implementing public health protocols (CDC reopening guidance to effectively open and maintain health and safety of students, educators, and staff) and must be spent by Sept. 30, 2023.

See a listing of how much money each state is getting: https://www.democrats.senate.gov/imo/media/doc/Revised%20CD%20memo_ESSER_EANS_HEERF_Senate%20passed%20sub%20to%20HR1319_3-9-21.pdf

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[12] CDC's Who Should and Should NOT Get a Flu Vaccine https://www.cdc.gov/flu/prevent/whoshouldvax.htm?deliveryName=USCDC_7_3-DM31737

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For more detailed information and a list of resources, please visit **aafa.org**.

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