



# UPCOMING WEBINAR

How Can We Make Anaphylaxis Less Scary for Patients?

December 7, 2022 - 4:00 PM ET

Dr. David Stukus

1



## New Studies on Long COVID-19: A Multi-system Disorder

COVID-19 Webinar Series

2



The mission of  
**ALLERGY & ASTHMA  
NETWORK**

Is to end the needless death and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research.

3

Meet Our Speakers



**Dr. Purvi Parikh**

- Clinical Assistant Professor of Medicine NYU Langone School of Medicine & Director, Allergy and Asthma Association, Murray Hill
- National Spokesperson, Allergy & Asthma Network



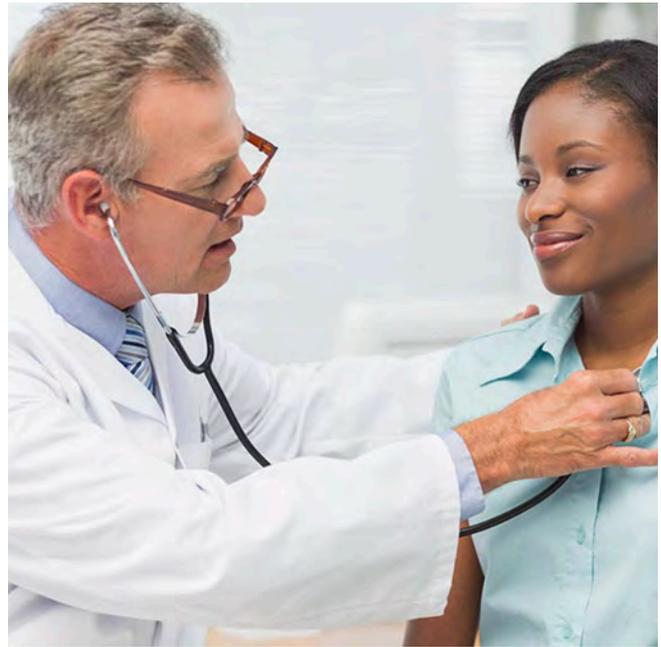
**Sally Schoessler**

- Director of Education, Allergy & Asthma Network
- Nurse, Asthma Educator

4

## Today's Program

- 01** | Current state of COVID-19
- 02** | Long COVID-19: New Studies
- 03** | Long COVID-19 in Children



5



**?**

**POLL  
QUESTION**

We'd like to know who is with us today!

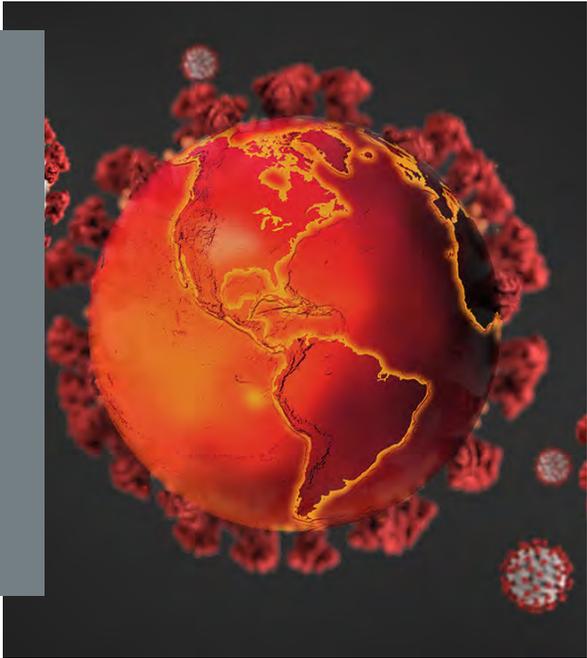
What category best describes you? (we have a limited number of answers or would offer more!)

6



# Current State of COVID-19

Sally Schoessler



7

**COVID-19 Dashboard** by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

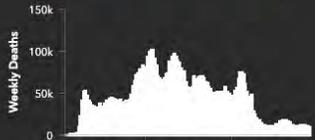
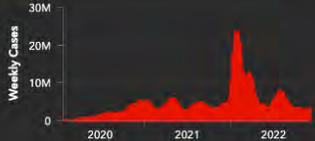
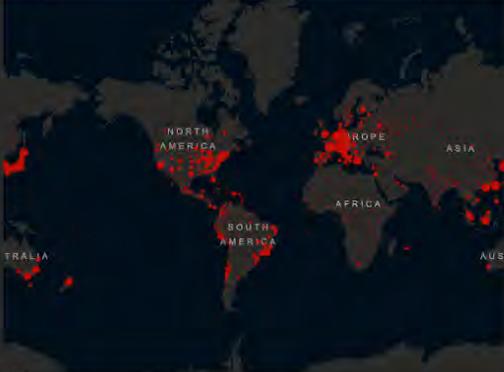
Last Updated at (M/D/YYYY)  
12/1/2022, 11:21 AM

Total Cases	Total Deaths	Total Vaccine Doses Administered
643,543,009	6,635,806	13,047,183,523

28-Day Cases	28-Day Deaths	28-Day Vaccine Doses Administered
11,563,415	38,256	169,376,648

**Cases | Deaths by Country/Region/Sovereignty**

Country/Region	28-Day	Totals
Japan	2,355,040   2,765	24,923,509   49,834
Korea, South	1,438,536   1,288	27,208,800   30,621
US	1,159,873   8,618	98,796,415   1,080,457
France	977,707   1,806	38,046,448   159,990
Germany	771,323   3,848	32,499,499   157,942

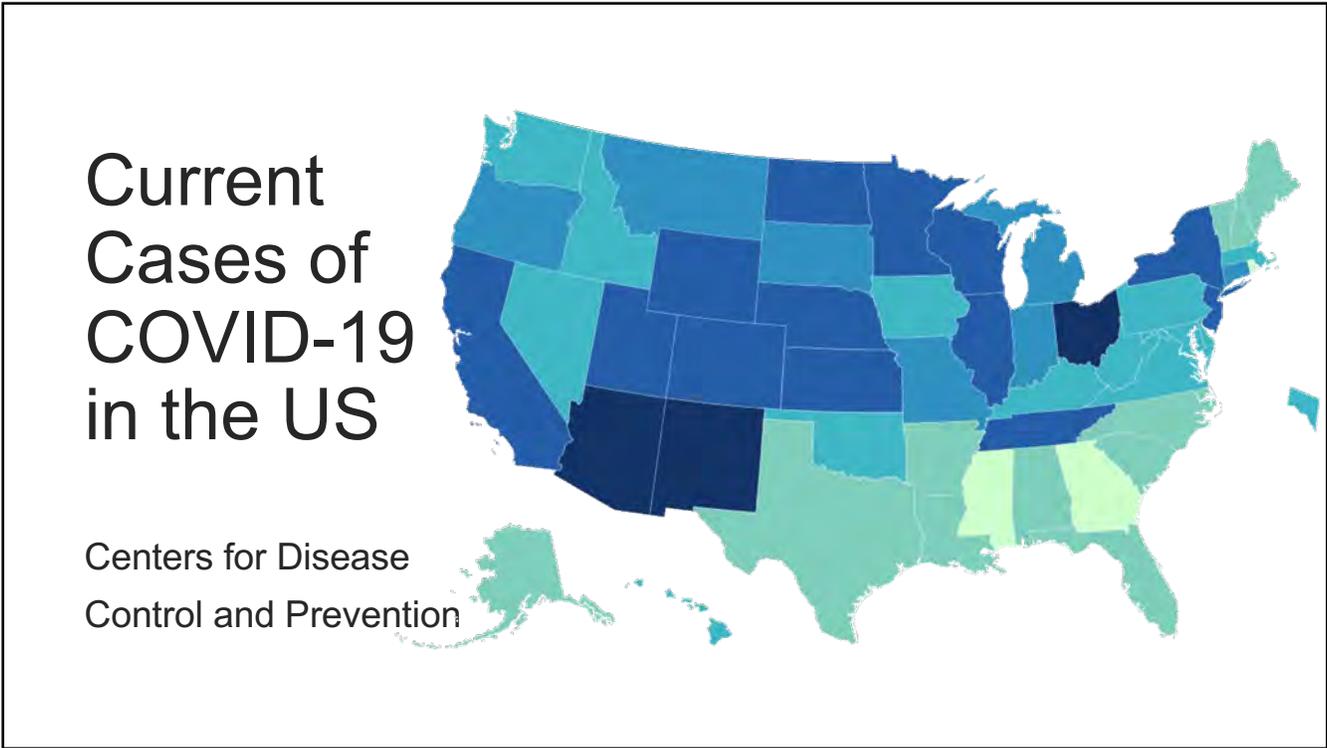


Esri, FAO, NOAA, USGS | Powered by Esri

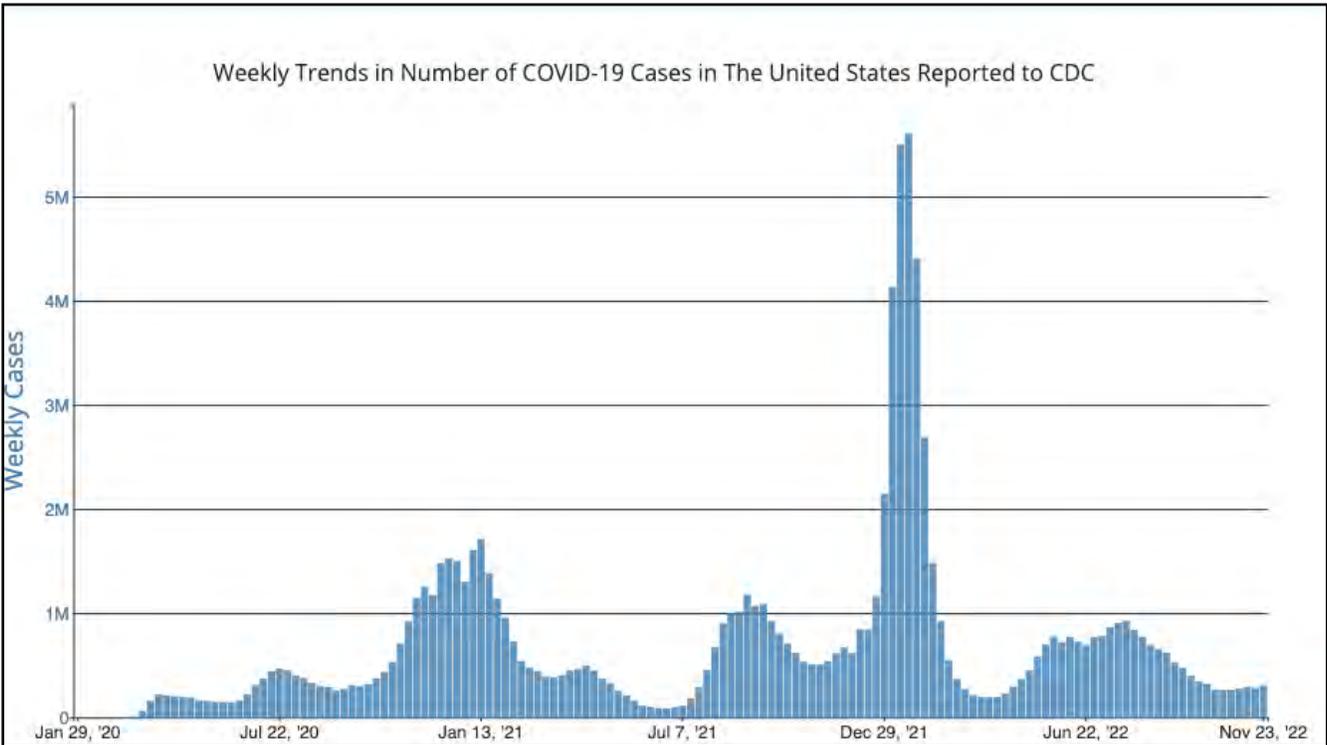
## JOHNS HOPKINS GLOBAL MAP

December 1, 2022 11:21 AM

8

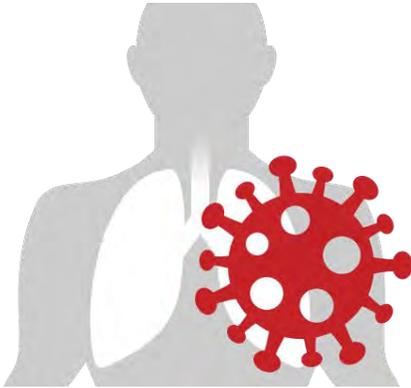


9



10

## IN THE NEWS



### **2 New Subvariants of Omicron take over**

- The original Omicron is BA.5
- Now we're seeing BQ.1.1 and BQ.1
- The two together make up around 44% of new Covid infections, whereas BA.5 makes up just 30%.
- Preliminary data suggests they are better at evading immunity from Covid vaccines, including the new bivalent boosters, or a previous Covid infection than past versions of omicron. That may give these subvariants higher transmissibility, which could fuel a rise in cases this winter.

### **Another New Subvariant Just This Week**

U.S. health officials are tracking a new COVID variant that's a combination of two earlier Omicron subvariants. Known as XBB, this latest subvariant now represents 3.1% of new COVID cases throughout the U.S. and 5% of cases in the Northeast. Based on preliminary estimates from the CDC, cases of XBB may be doubling every 12 days. However, the variant shouldn't pose the same threat that the emergence of Omicron posed a year ago (less severe).

11

## IN THE NEWS



### **Monoclonal antibodies not effective with new variants**

- The new wave of omicron subvariants that are the best yet at evading the immune system's current defenses have taken over in the U.S. They're expected to knock out bebtelovimab, the last monoclonal antibody treatment standing against the coronavirus.



### **Masks once again recommended in Los Angeles County**

- Public health strongly recommending wearing a mask in indoor public spaces
- Jump in number of newly reported cases
- Not a mandate

12



**POLL  
QUESTION**

Do you know someone who has Long COVID-19?

13



**Long COVID-19:  
New Studies**

Dr. Purvi Parikh

14

## Long COVID-19 pr Post-COVID Conditions

### DEFINITION

#### Post-COVID Conditions

Some people who have been infected with the virus that causes COVID-19 can experience long-term effects from their infection, known as post-COVID conditions (PCC) or long COVID.

People call post-COVID conditions by many names, including: long COVID, long-haul COVID, post-acute COVID-19, post-acute sequelae of SARS CoV-2 infection (PASC), long-term effects of COVID, and chronic COVID.

15

## What You Need to Know

Centers for Disease Control and Prevention



Post-COVID conditions can include a wide range of ongoing health problems; these conditions can last weeks, months, or longer.



Post-COVID conditions are found more often in people who had severe COVID-19 illness, but anyone who has been infected with the virus that causes COVID-19 can experience post-COVID conditions, even people who had mild illness or no symptoms from COVID-19.



People who are not vaccinated against COVID-19 and become infected might also be at higher risk of developing post-COVID conditions compared to people who were vaccinated and had breakthrough infections.



16

## What You Need to Know

Centers for Disease Control and Prevention



While most people with post-COVID conditions have evidence of infection or COVID-19 illness, in some cases, a person with post-COVID conditions may not have tested positive for the virus or known they were infected.



CDC and partners are working to understand more about who experiences post-COVID conditions and why, including whether groups disproportionately impacted by COVID-19 are at higher risk.



17

## Case Study – A.J.

A.J. is a 55-year-old woman with a history of food allergies, environmental allergies and difficult to control severe asthma. Contracted COVID-19 in May 2022.



When first infected – fever, chills, body aches, severe cough, tight chest, shallow breathing, congestion, extreme fatigue. Headache, sore throat, had to sleep with head elevated. Cough was so bad, unable to eat or drink.



Went to see primary care provider – did a virtual visit. PO<sub>2</sub> level > 90  
Prescribed Paxlovid, oral corticosteroids.  
Nebulizer treatments every 4 hours around the clock for 1 month.  
Went from Dulera 200 to Trelegy 200



Acute phase lasted 1 month, with respiratory symptoms continuing beyond that

18

## Notes on Long COVID

Between 7 and 23 million American are suffering from the long-term effects of the virus

- Numbers are expected to rise as COVID becomes endemic

Long COVID symptoms vary from person to person

- Symptoms and severity vary

Symptoms were worst among people who were sick enough to be hospitalized

Risk of long COVID greatest among women, older people & those who live in disadvantaged communities

- People who already suffered from physical and mental health problems, such as respiratory disease and depression, were also more prone to long covid.

19

## Long COVID-19

Scottish Study - October 2022



### Scottish Study

A new long-COVID study based on the experiences of nearly 100,000 participants provides powerful evidence that many people do not fully recover months after being infected with the coronavirus.

Between six and 18 months after infection, 1 in 20 people had not recovered and 42 percent reported partial recovery.



### Reassurance

There were some reassuring aspects to the results: People with asymptomatic infections are unlikely to suffer long-term effects, and vaccination appears to offer some protection from long COVID.

20

## Notes on Long COVID

Scottish Study - October 2022



Long haul symptoms include:

- Breathlessness
- Palpitation
- Chest pain
- “Brain fog” (reduced mental acuity)



Recent studies show that vaccination reduces the chance of developing long covid, but not as much as previously thought.

21

## Long COVID-19

*Outcomes among confirmed cases and a matched comparison group in the Long-COVID in Scotland study – published October 12, 2022*



### Persistent Symptoms

People with previous symptomatic Covid infections reported certain persistent symptoms, such as breathlessness, palpitations and confusion or difficulty concentrating, at a rate roughly three times as high as uninfected people.



### Additional Symptoms

Those patients also experienced elevated risks of more than 20 other symptoms relating to the heart, respiratory health, muscle aches, mental health and the sensory system.



### Asymptomatic infection

The study did not identify greater risks of long-term problems in people with asymptomatic coronavirus infections.

22

## Long COVID-19

Outcomes among confirmed cases and a matched comparison group in the Long-COVID in Scotland study – published October 12, 2022

- 
  - People with severe initial Covid cases were at higher risk of long-term problems, the study found
- 
  - Tracks with the broader idea that long Covid is truly a multisystem disorder
  - One that resides not only in the brain, not only in the heart — it's "all of the above"
- 
  - The findings reinforced the importance of long Covid patients being offered support that extends beyond health care and also addresses needs related to jobs, education, poverty and disability.
- 
  - The study told us that Covid can appear differently in different individuals, and it can have more than one impact on your life

23

## Case Study – A.J. - Continued

A.J. is a 55-year-old woman with a history of food allergies and difficult to control asthma.



Long COVID symptoms: Fatigue, tight chest, coughing up phlegm, PO<sub>2</sub> level continues to be below 90, Nebulizer only as needed, using inhaler as needed now – up until October, used inhaler twice a day



Accommodations needed: Used inspiratory spirometer, required daily naps through October (5 months), OTC medications, followed up with pulmonologist – frequent follow-ups with primary care provider



Anticipated Course of Long COVID: Continuing to medicate for severe asthma, environmental allergies

24





## Long COVID-19 in Children

Dr. Purvi Parikh

25

## Long COVID-19 in children

### Recently recognized in children

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While recently recognized in children, it has not yet been defined.

The first large study of children with long COVID, which includes a comparison group, is a Denmark nationwide cohort study in 2021.

The children had not yet been vaccinated because the vaccine was not widely available to children at that time.

26

## Long COVID-19 in Children

01

With COVID-19 infection, Pre-school children in the COVID-19 group experienced statistically more fatigue, loss of smell and taste, and muscle weakness

02

School-aged children's most predominant symptoms were loss of smell and taste, fatigue, respiratory problems, dizziness, muscle weakness, and chest pain.

03

Children in the control group experienced significantly more concentration difficulties, headache, muscle and joint pain, cough, nausea, diarrhea, and fever. The investigators postulate that concentration difficulties (such as headache), muscle and joint pain, and nausea the control group may reflect the negative social consequences of the pandemic on children.

04

Long COVID symptoms resolved in one to five months for 54% to 75% of children.

*How Common is Long COVID in Children and Adolescents?*  
<https://pubmed.ncbi.nlm.nih.gov/34870392/>

27

## How Common is Long COVID-19 in Children? It's hard to tell.



### Geography

Different studies have shown different results - depends what part of the country or world you're looking at.



### Lack of a clear definition

Called several things, what symptoms are being used to define Long COVID?



### Health care

Only a small number of children seek health care for COVID.



### Communication

Small children can't communicate their symptoms – fatigue can manifest itself as hyperactivity.

28

## Symptoms of COVID-19 in Children



01

The AAP reports that children and adolescents have experienced chest pain, cough, exercise-induced dyspnea (or labored breathing), as well as changes to smell or taste (although this is more common in adolescents).

02

Affected children and teens have reported fatigue, brain fog, anxiety, joint pain, headache, and sore throat, among other symptoms—all varying in intensity and duration, in some cases lasting for months.

03

Some children experience subtle symptoms but, when diagnostic testing is done, no abnormalities are found. Some reports of joint and bone pain.

04

A very small percentage of children even develop serious complications, since COVID-19 can affect organs including the brain, heart, kidneys, and liver—and any of those organs can be damaged if the child doesn't receive proper care.

29

## Treatment for Long COVID-19 in Children

Typically, after a full evaluation, patients are referred to one or more subspecialists with expertise in a particular area. Long COVID can affect different organs and parts of the body, so in addition to pediatric infectious diseases specialists, the team can include cardiologists, neurologists, pulmonologists, rheumatologists, psychologists, and others.

Treatment tends to be most effective when it addresses each symptom individually.

- A child with chest pain and decreasing physical conditioning will be referred for a cardiac evaluation, for instance.
- A child with cognitive challenges will be seen by a neurologist.
- With behavioral health needs, psychotherapy and medications may be needed.

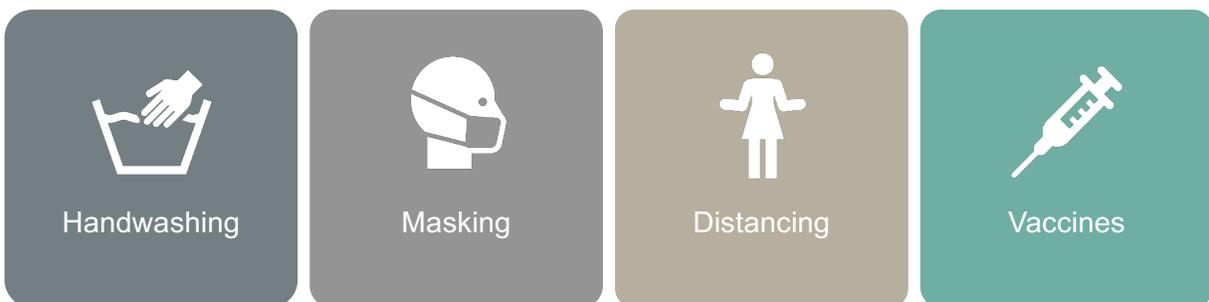
30

*“Sometimes the expectation from a parent is that their pediatrician will know everything about this... But, this is a new disease, and doctors are still learning.”*

— Carlos Oliveira, MD, a pediatric infectious diseases specialist

31

## Reminders on COVID-19 Prevention



Don't forget to practice what works!

Be sure vaccines are up to date 2 weeks before family gatherings.

32

## A Few Notes on COVID-19:

### COVID-19 Treatments

Monoclonal Antibody Treatment	VS	COVID Antiviral Pill
Uses COVID-19 antibodies to help a person's body fight off the infection	➔	Limits the ability of the virus to replicate
Given IV or a single-dose injection	➔	Can be taken at home
Antibodies reduce the 'viral load' - amount of virus in a person's body	➔	Reduces risk of hospitalization and death

**Neither treatment is a replacement for the COVID-19 vaccine.**



Allergy & Asthma NETWORK  
AllergyAsthmaNetwork.org

33

## Reminder for School Care:



### Asthma Care at School Post COVID-19 Outbreak

A student presents at the school Health Office with report of respiratory symptoms  
**Could it be viral?**

**Maybe?** Important to note student's anxiety level  
School Nurse should wear appropriate Personal Protective Equipment (PPE)

**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/itch on hands & feet

**Yes**

**Assess for asthma issues & treat as needed.**

- Isolate student
- Call parent
- Dismiss; refer to healthcare provider, (where possible, provide student with mask)

**If confirmed COVID-19:**

- Assess risk
- Consult local health officials
- Consider 2-5 day building Dismissal to clean, disinfect & contact trace (CDC guidance as of 5/20)

**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

**No**

**Follow Asthma Action Plan**

- Green – Follow plan, observe
- Yellow – Administer medication as directed, notify parent
- Red – Administer medication as directed

Call parent as needed  
Call 911 if symptoms are or become severe

**Observe**  
Return to class as appropriate

Please see Page 2 for Asthma Care Notes

34



**POLL  
QUESTION**

Do you know a child who may have Long COVID-19?

35



**QUESTIONS**

Record your questions in the question box  
We'll get to as many as we can!

36

## Next Webinar

Join us for our upcoming webinar

### How Can We Make Anaphylaxis Less Scary for Patients?

Wednesday, December 7, 2022  
4:00 PM ET



37

## Breathe Better Together



[allergyasthmanetwork.org](http://allergyasthmanetwork.org)



Please remain online for 2 – 3 minutes to complete an evaluation survey! **Thank you!**

38