

SOUTH CAROLINA CHAPTER OF THE AMERICAN ACADEMY OF PEDIATRICS' NEWSLETTER

March Newsletter 2021

PRESIDENT'S MESSAGE – Robert Saul, MD, FAAP

It was 12 months ago that we all went into pandemic-mode. What a year! We can all reflect on the multiple challenges (personal, family, professional, corporate, and concern for the health of our patients, their families, and our fellow citizens). We worked separately and together when possible to overcome the obstacles that were thrown our way.

I just got off a phone call for the AAP Chapters around the country. I am truly amazed at the support of the AAP for its members, its advocacy for children and its leadership in good times and bad times. The AAP stood strong with continued communications and resources and fought hard for pediatricians and children with an administration that often ran counter to what we consider in the best interests of children. A prime example is the fact that the "Public Charge" rule is no more! (<https://services.aap.org/en/news-room/news-releases/aap/2021/aap-statement-on-justice-department-decision-not-to-defend-public-charge-rule/>)

The health crisis persists—children still get COVID (too many get seriously ill) and vaccinations still lag. We can take some solace in minor victories but we must continue our advocacy for children, especially as detrimental legislative actions are underway in our statehouse. Please use your voice via the SCAAP Advocacy links (kudos to Drs. Elizabeth Mack and Steph Kwon) as noted below and in newsletters to follow. We can make a difference!"

Mark Your Calendars!!

The South Carolina Chapter of the American Academy of Pediatrics' Annual Meeting is scheduled for August 5-8, 2021 at the Omni Grove Park Inn, Asheville, North Carolina. Brochures will be emailed this week. Dr. Stallworth and the Planning Committee has a fantastic lineup of speakers.

Make plans to attend!!

Virtual Residents Day at the Statehouse

Here are the draft materials we have put together for the Virtual Pediatric Residents Day at the Statehouse on April 16. I want to be sure that all SCAAP members are aware and know that they are welcome to join.

- Attached is the DRAFT AGENDA. [Draft of Virtual Residents Day Agenda at Statehouse](#)
- Here is the draft registration page. <https://www.eventbrite.com/e/south-carolina-aap-resident-lobby-day-tickets-145846995289>
- Finally, attached is a mock-up of the Save the Date.

Childhood Food Insecurity and the Role of Pediatricians

1 in 7 U.S. children live in households that experience Food Insecurity. Recent data suggests that COVID-19 has dramatically increased that number to 1 in 4 children. In January of 2021, the AAP released *Screen and Intervene: A Toolkit for Pediatricians to Address Food Insecurity* <https://frac.org/wp-content/uploads/frac-aap-toolkit.pdf>

This toolkit is an excellent resource to learn more about how food insecurity impacts the health of children and to prepare to screen and intervene for our food insecure youth.

Pediatric Provider Survey: Addressing Food Insecurity Among South Carolina's Children

Please take this brief survey which aims to understand current Pediatric provider knowledge, beliefs, screening practices, and referral capacities for SC Youth experiencing food insecurity. The goal of the survey is to gain insight to help improve the process of connecting nutritional resources to those children in need. Responses are anonymous. Data gathered will be shared with the SC AAP and used to help develop Food is Medicine programming in South Carolina including Fruit and Vegetable Prescription programs. Please address any questions or comments to Melinda O'Leary MD, FAAP mlleary1@me.com

Survey Link:

<https://www.surveymonkey.com/r/Z7WJM7P>

Thank you for your consideration.
Melinda O'Leary MD, FAAP

SCAAP Advocacy Update

Check out our updated [legislative advocacy action items](#)! This has certainly been a lively session and pediatricians and pediatric subspecialists are passionately advocating in many ways for the wellbeing of all children. As of 3-19-21, we have created 6 legislative advocacy alerts, and this has resulted in 45 contacts from our members to legislators on behalf of children. Sending a heartfelt thank you to Dr. Stephanie Kwon, MUSC pediatric hospitalist, for lady handling our legislative advocacy platform. Additionally, in March the SCAAP participated in a national AAP panel focused on the experience of chapters around the country in legislatively advocating for LGBTQIA+ youth, specifically in response to a number of anti-transgender bills introduced around the country. In partnership with state advocacy at national AAP, our chapter has proudly been able to advocate for marginalized youth.

Elizabeth Mack, MD

Covid-19 & Asthma – Frequently-asked Questions

C. Michael Bowman, PhD, MD
SCAAP Asthma Nugget series (Intended for providers, patients and families)

Why is the pandemic viral disease (“novel coronavirus”) called Covid-19?

The name comes from **C**orona **V**irus **D**isease first detected in 20**19**. The name of the virus itself is SARS-CoV-2 as it is the 2nd virus in the Severe Acute Respiratory Syndrome coronavirus family. The first SARS virus was identified in 2003 and vaccine work on this class of viruses started at that time.

What should a patient with asthma do about a new cough?

Take temperature 2-3 times per day, take rescue medicine twice, stay hydrated, call primary caregiver if not better. If the rescue medicine helps, continue with the instructions on your Asthma Action Plan.

Who should I listen to for the best information?

We have MANY sources of information, some true, some wishful, some political, many are plain false. Listen to Dr. Fauci, the lead scientist in the government's activities and the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO) and reliable sources such as health societies, federal / state health departments and medical sources. The Johns Hopkins Univ Covid-19 center is particularly useful. Be very cautious about believing anything that starts with "I heard..."

How does Covid-19 spread?

In general, Covid-19 spreads like other respiratory viruses. However, there may be higher virus concentrations in cough secretions in Covid-19 infections. Covid-19 has a higher "infectivity" than other respiratory viruses. Some of the newly-identified "variants" are more infectious than the original strain of Covid-19. Live virus can survive and be infective for up to 3 hours in the air, 24 hours on cardboard, 48 hours on stainless steel and 72 hours on plastic. However, near the end of these time intervals, the number of live viruses will have decreased significantly. Over 80% of those infected with Covid-19 infection will not need hospitalization and will recover. Unfortunately, almost half of those infected won't have any symptoms at all. The major risk is that even if you are doing well, you could spread it to someone with a greater risk (elderly, immune suppressed, etc.) who could get much sicker or die. Peak virus levels (infectivity) may occur a day or two BEFORE symptoms start.

How can I get infected with Covid-19?

Virus particles must reach your upper - respiratory mucous membranes by being inhaled, coughed on, or touched after getting virus on your hands / fingers. We should all try to avoid touching our eyes and faces. Wearing masks are extremely helpful in this regard.

Where does Covid-19 attack?

It sticks to cells in the mucous membranes lining the nose, eyes and / or mouth. The virus reproduces and then spreads throughout the upper respiratory tract (nose, sinuses and throat). In some patients, it will spread below the voice box into the airway. From there, it can spread into the lungs to cause pneumonia. It can spread into the whole body causing more diverse and severe symptoms (such as fever, fatigue, aches, blood clots, shock and many other problems).

How can I kill or remove covid-19 (and other viruses)?

Use alcohol – based sanitizers and wipes to clean surfaces and use soap and water hand washing for at least 20 seconds (some prefer 30 seconds) FREQUENTLY.

When should I use sanitizers?

Wash your hands with soap and water (for 20 seconds, at least) frequently. Sanitize whenever you encounter a surface that could have viruses on it (public transportation and furniture, plane seating, etc.) or when someone else might have contaminated something in "your space" (phone, computer, etc.). Be especially vigilant if someone around you coughs. The virus does not just come out of thin air, although virus –

containing particles can hang in the air for a few hours after a cough or sneeze. It is now known that even talking, without a mask, can spread the virus.

Are there any risks of sanitizers?

Strong odors can trigger asthma and irritate the nose; liquid applications can dry the skin (especially for babies) and worsen eczema. Sanitizing agents should NEVER be taken internally.

When should I wear a mask?

Masks / face coverings help you to not spread your cough or nasal secretions and keep you from touching your nose; they also may filter small particles suspended in the air you breathe in. Use a face mask whenever you are around others in public settings, even if you feel well. Do not get masks with valves on the side, as they are not nearly as protective. Multi-layer masks work best.

Why do health-care personnel wear so much protective gear?

They are more likely to be coughed on directly or handle items that have infectious secretions on them. Viruses can last for a little while on clothing and then get to mucous membranes by finger touch.

How many different respiratory viruses are “out there”?

MANY – over 100 strains of rhinovirus (“common cold”) and at least 4 strains of influenza, plus many other types of respiratory infectious agents (RSV, adenovirus and others) surround us.

How many patients have cold viruses, flu and Covid-19?

Only influenza and Covid-19 are reported to state health departments; asthma is the leading cause of school absences; even before Covid-19, it was typical for a child to have at least 5 respiratory virus infections per year (that should decrease with schools being closed). In the 2019 – 2020 season in the US, as of late March, there were 38 million influenza infections and many more with the common cold. Covid-19 numbers have been increasing continually, especially after holidays when people have gathered for celebrations, often without masks or physical distancing.

What is the risk of Covid-19 to a patient with asthma?

Data is limited, but it is likely to trigger asthma attacks in addition to its own “usual” symptoms. Per the CDC, a patient with moderate or severe asthma may be at higher risk for worse outcomes. In addition, other chronic lung conditions, especially if poorly controlled, can make Covid-19 outcomes worse.

Covid-19 vs influenza – it DOES make a difference to know which it is!

Covid-19 currently has no specific treatment while influenza does, but “routine” cold viruses don’t. For it to make a difference, treatment for influenza must start within 48 hours of the start of symptoms. The test kits used in Emergency Departments to check for respiratory viruses now look for influenza and Covid-19, as well as several other common germs that cause respiratory problems.

How are viruses spread to others (direct vs indirect)

Respiratory viruses come from people who are infected directly (droplets with virus get to nose, eyes or mouth), or through touch with a surface someone has coughed or

sneezed on (indirect); there is some evidence that some patients can harbor Covid-19 in the gi tract, so bathroom hand-washing is also important.

Is there any risk for using a nebulizer for my medicines?

It is recommended that patients should use metered – dose inhalers rather than nebulizer machines for their inhaled medicines whenever possible. This is based on possible increased spread of virus by the nebulizer if the person has Covid-19 (or influenza or other virus) along with their asthma flare. Studies have shown that for emergency care of asthma, metered – dose inhalers with spacers can work just as well as nebulizers. There is disagreement as to whether nebulizers pose significant infectious risk.

What underlying conditions are particularly dangerous for catching Covid-19?

There is a marked variation in Covid-19 - related pneumonia and death risk with age – elderly more at risk; other conditions such as diabetes, severe obesity, chronic lung and heart disease also make risks of serious disease worse. It appears that moderate and severe asthma, especially if poorly controlled, is a specific risk factor as is cigarette smoking.

Does asthma make you more susceptible to Covid-19?

It's not known that it does, but it certainly complicates the assessment of a sick patient because it adds another major possible cause of cough and shortness of breath.

How do patients with Covid-19 die?

The vast majority of patients with Covid-19 recover very well, and many never show any symptoms (although they can spread the virus). However, when the virus spreads into the lungs to cause pneumonia, that can rapidly progress to respiratory failure as the lungs fill up with fluid. Severe shortness of breath, fever and chest pain are particularly worrisome symptoms. Low oxygen levels worsen when that happens. Covid-19 may also affect the heart and blood vessels, causing the heart to fail. Underlying significant heart disease makes this worse. Infection also may cause blood clots.

How is Covid-19 diagnosed?

A sample of nasal secretions (snot) or throat mucus is taken with a small swab (like a long Q-tip). It is then checked to see if the virus is present. Different tests from different manufacturers take differing times to report the result and some now swab the cheek rather than nose.

What is the age and sex distribution of Covid-19 infections?

Because testing has been somewhat limited (particularly to those with symptoms) we are still learning a lot more about who can be infected with only mild symptoms. The elderly, especially those living in nursing homes, were the “tip of the iceberg” for infections in the US at first. Men seem to be more likely than women to show symptoms. The initial idea that “young people” were “safe” is definitely not true. Further, those with underlying immune compromise are at significant risk for bad outcomes.

What should we take for fever and body aches?

Take whatever works for you / your child. There was initial concern that patients should not use the class of medicines called NSAIDs (non-steroidal anti-inflammatory drugs) such as Advil, Motrin or Aleve because the medicine might make Covid-19 infection worse. However, this is only a theoretical risk and has not yet been demonstrated as a risk. Instead, you could take acetaminophen (Tylenol). Do NOT take aspirin, as that

has been associated with development of a very serious condition called Reyes Syndrome when influenza is present. It is currently recommended to not take NSAIDs for the side effects related to the vaccines, either before or after receiving the shots.

What is the age distribution of death for Covid-19 patients?

Older patients have much worse outcomes than do younger patients with Covid-19 and in each age group, the mortality from Covid-19 is much worse than that from influenza (5 – 20 X worse). However, antibody testing now suggests that this virus has been “around and unrecognized” in the US, so the true death risk is not clearly known. As more people have been hospitalized with Covid-19, doctors have learned how best to treat them so that the death rates are falling, but it is still a very dangerous disease.

What does fever mean for an ill patient with asthma?

Asthma flares frequently occur without fever, as do common colds, while influenza and Covid-19 are more likely to have fever (>100.4°, not the “old” 98.6°). If symptoms develop, check your temperature at least 3 times a day. If you or your child has fever and it lasts while symptoms are there, call your Primary Care Provider (PCP).

What is the time course of Covid-19 infection?

From the time of infection with Covid-19, the patient is likely to become symptomatic in several days and can shed the virus for up to 12 days (longer if more critically ill). It's not precisely known how quickly virus shedding can start after infection because no one gets the same number of virus particles when they are infected. It is known that an infected person can shed virus to others for even days before they develop symptoms and some who are infected (and can spread the virus) never have symptoms (nearly 40% of all folks who get infected). Some patients who have recovered from their symptoms can still shed live virus for days after recovery, although isolation recommendations are generally 3 days after symptoms disappear.

What's the difference between “exposure” and “infection”?

Exposure means that a person has been close to someone who is infected with the virus (usually closer than 6' for longer than 15 minutes). Infection means that they have “caught” the virus (whether they know if or not). Being near someone remotely (eg, sitting behind them on a plane, standing back to back or side to side, being across the room) is not very likely to lead to infection. However, touching or being coughed (or sneezed) on by an infected person is more likely to lead to infection. Covid-19 appears to be very aggressive in actually infecting a person without too much contact and some of the newly identified variants are even more aggressive in this regard. This is why wearing masks all the time, especially away from home, keeping the 6' of personal space and sanitizing hands before and after contact are so important.

Why does “self quarantine” have to last so long?

Covid-19 can take 12 days or more to clear from a person's system (longer if more severely ill), so it is necessary to be away from others for at least a week from your exposure or diagnosis to avoid passing the virus on to others. Currently, there are not enough virus test kits to keep checking a person every day or two to know when they no longer carry the virus. After you have had Covid-19 infection, it is not recommended that you get another test to see if you are negative because damaged viruses that cannot cause infection can linger in your nose and show up as a positive test.

When do I or a family member need a Covid-19 test?

Ask your primary care provider (PCP) for their recommendation – usually it is done when symptoms occur, although exposure to someone with known infection may trigger testing, especially for those around others who are at high risk. Availability of testing and personal protective equipment in one locality or another will influence who may get a Covid-19 test.

If I need to go to an urgent care facility, how should I do it?

It is strongly recommended that BEFORE going to a testing or evaluation site you should call your PCP for instructions and to let him / her know that you are coming and why.

What is the danger of going to urgent care for a patient with asthma?

Urgent care facilities (as compared to drive-through testing sites) have numerous people with other illnesses needing to be evaluated. Although facilities try to isolate patients and sanitize the areas the best they can, there is still a small risk that a person coming in can “catch” something else from someone there or give their illness to someone. Facilities may also be overloaded with patients so one should go ONLY if they have significant symptoms and their PCP says to come. An asthma flare is not contagious but its trigger (a virus infection, not necessarily Covid-19) could be. Follow your action plan and try to avoid going to urgent care.

Who does Covid-19 affect the most?

People who are older and who have severe underlying problems such as obesity, diabetes, heart disease or chronic lung disease have more problems once infected. Importantly, those who are around a lot of people, especially those who are sick, are more likely to be exposed to Covid-19. To see the impact of this disease, it is important to realize that it was recently found that life expectancy in the US actually DROPPED in the first half of 2020, by a full year. Unfortunately, among Black folks that drop was 2.8 years and among Hispanics 1.7 years. That dramatically shows the racial inequity of this virus.

What's different if I get / my child gets infected?

In many ways, very little may change for a patient with asthma who gets infected with Covid-19 since there is no specific treatment currently available for the Covid-19 virus (but there is for influenza). Isolation, symptomatic and chronic treatments, hydration and sanitization are likely to be what steps are needed along with using ALL of the medicines prescribed by your PCP, exactly as prescribed. However, more patients with Covid-19, compared to other respiratory viruses, may need to be hospitalized, so careful monitoring for worsening of symptoms will be necessary for up to 2 weeks. Overall, about 20% of those infected with Covid-19 will need to be hospitalized.

What does “self-isolate” mean? How does it differ from “quarantine”?

Staying away from others is the key and it usually results from having symptoms, active Covid-19 infection or known exposure. Isolation generally lasts 1-2 weeks. Self-isolate means that you think you might have Covid-19 or have been exposed, so you do not go out of your residence for other than very necessary activities (health and pharmacies, food / groceries, etc). Quarantine means that it is known through testing and contact tracing that you either have Covid-19 or have been in close contact with someone who has it, whether you have symptoms or not. You should stay away from others for almost 2 weeks. Quarantine means that everyone, no matter how they feel, must avoid being out and around others. Always wear masks.

Why do many businesses measure a person's temperature to let them enter?

Fever can be a significant sign of Covid-19 infection. Thus, it is wise to exclude anyone with a fever from coming into a building with other people around. However, fever is actually just the “tip of the iceberg” in terms of symptoms, so over half of people with Covid-19 are afebrile.

Why are groups limited to such small numbers during this time?

It is assumed that anyone with symptoms would stay away from others. It is currently felt that in a group of 3-5 or fewer people, all without symptoms, it is not very likely that there would be one infected person to spread virus to the others. It's not impossible, but not very likely. Remember that infected persons can shed virus for a few days before they develop their own symptoms, if they have symptoms at all (which many will not). With influenza and cold viruses, shedding the virus matches fairly well the presence and severity of symptoms.

Are there racial differences in susceptibility to Covid-19 infection?

There are significant disparities among various ethnic groups in their susceptibility to serious or fatal Covid-19, with percentages for Blacks and Hispanics who die or require admission being higher than their percentage of the population. The cause of this is not fully understood but may represent an interaction among socioeconomic resources (and the ability to self – isolate), density of living situations, socialization in large groups, difficulties in obtaining care early in the disease, employment in front – line occupations, and the presence of significant underlying conditions.

Why is isolation / “keeping your distance” so important?

Since you catch Covid-19 and other respiratory viruses from secretions from someone else, we want all those virus - containing droplets to land on dry surfaces where the virus will die or be removed with sanitizers. Virus in small droplets in the air can stay alive for some hours. Staying at least 6 feet away from anyone else makes that the best chance. Covid-19 is NOT Superman (able to leap tall buildings in a single bound), but it CAN survive on some surfaces for up to 3 days (but at a tiny fraction of live virus particles). 72 hr survival on plastic surfaces has been reported, as well as 48 hrs on stainless steel and 24 hrs on plastic.

What is meant by “social distancing” (please call it “physical distancing”)?

As mentioned above, we want to really cut the chance that you will catch the virus from someone else. The distance away from others can decrease that so it is recommended that we all stay at least 6' away from each other at all times. That has been called “social distancing”. However, the pandemic has shown how terribly isolated we have become from others, with depression and sadness making us want more rather than less contact. As a result, we now say “keep your distance” or “maintain physical distancing” to mean, stay 6' or more away from others, even when masked. However, try to maintain as much social contact and interaction as possible with friends and loved ones, even at a distance.

Can I catch Covid-19 from someone who isn't sick?

YES! You can only catch Covid-19 from someone who is infected, but such a person can shed the virus for several days before they develop their own symptoms or after the symptoms have gone away (and they may never have ANY symptoms). A major feature of this pandemic is the fact that you do not have to be “sick” in order to share your virus.

Why is Covid-19 different in making us isolate?

This virus seems to be very infectious and the new “variants” are even more contagious. The virus can be very severe and can be shared before symptoms show up. Since it is a novel (new) virus, it is expected that, unlike cold and flu viruses, no one has any pre-existing immunity to it. In the US, influenza this season has a death rate of 0.015%, while Covid-19 currently has a death rate of about 1.8% (compared to 2.2% worldwide). **This makes Covid-19 120 times more lethal than influenza.** Senior citizens have Covid-19 death rates near 10%!

What’s the best asthma care now?

The best asthma care is doing exactly what your PCP has prescribed. However, be even more certain to get in every dose of medicine that has been prescribed. A dose twice a day means 14 per week, not just 4 when you think of it. It is also most important to remember that every year there is a major flare of asthma when kids go back to school. It is likely to be worse when kids go back to in-person school, so make sure that children keep taking their asthma medicines and see their doctor / nurse before school starts.

What should I do if my child with asthma gets sick?

The first step is to follow your asthma action plan, using your rescue inhaler as instructed. If that doesn’t work or if fever (temp >100.4°) is present, call your PCP right away! Don’t wait to “see if she’s better in the morning”. Take the patient’s temperature at least 3 times a day and write them down. Repeat the rescue medicine as often as needed and try not to go to the urgent care setting without letting them know you are coming and what the problems are. Keep the child away from grandparents and anyone with major health issues or problems with their immunity. The symptoms of Covid-19 can be different from those of other viruses because many patients lose their sense of taste and/or smell.

Should I take / give extra rescue medicine?

There is no evidence that taking extra rescue medicine without symptoms (cough, wheeze or shortness of breath) being present will help in any way during this pandemic. However, be sure that you have rescue medicines (and spacers if needed) available in every place the child is likely to spend time. Check the device dose counters to be sure that you have at least 40 doses remaining. If not, order another refill (for all meds that are running low).

Should a person wear a mask all the time?

With case numbers (with many having no symptoms) still high, it is recommended that everyone wear masks whenever they are around people not in their household. This is even true with case numbers going down and vaccines being given, A person with symptoms (regardless of whether Covid-19 infection has been diagnosed) should stay home and wear a mask whenever they have to leave home.

What are the risks for my child with asthma to play outside?

The risks of infection by any virus, especially Covid-19, are primarily related to close contact with someone who is infected. In addition to face – to – face or hand – to – hand contact, virus can be spread “remotely” by coughing or sneezing on a surface, then having someone else touch that area and then touch their eyes, nose or mouth. Playground equipment, generally being metal, plastic or wood, can pass along

live virus, even after that infected child has left. Sanitizers may help. The American Academy of Pediatrics has recommended against play dates and use of playgrounds.

Should I / my child keep taking my / their steroid controller medicine?

YES! The surest protection a patient with asthma can have to stay healthy is to use all of their medicines exactly as prescribed. If it can possibly be avoided, we don't want any winter flares to sneak in, regardless of the trigger, and lead to need to seek urgent care or for steroids (prednisone) by mouth. There is no evidence currently that inhaled steroid medicines cause any risk of worse or more likely infection with coronavirus. Some experts even feel these medicines may be somewhat protective.

How can I avoid prednisone?

Controlling the asthma is crucial. Follow the asthma action plan prescribed by your doctor or nurse.

What's the risk of prednisone nowadays?

Prednisone and its cousin steroids can, over time, reduce one's ability to fight infection. The typical 5 -day course needed for an asthma flare is not likely to cause any risk, but longer treatments (10 days or more) may make it harder to fight off a viral infection. We want our patients with asthma to stay as symptom – free as possible. In general, the longer prednisone is used and the higher the dose, the greater the risks will be. Getting more than 2 courses of oral steroids in a year is concerning.

What are the key differences in symptoms among respiratory infections, allergies and asthma?

There is a lot of overlap in the symptoms they cause and they may occur together. Asthma and allergies will cause the symptoms they have triggered in the past – cough, wheeze and shortness of breath for asthma and nasal congestion, sneezing and cough for allergies. Covid-19 has cough, fever (>100.4°), body aches and respiratory distress along with some folks losing their sense of taste or smell. Influenza has prominent symptoms of fever, headache, cough and malaise (total – body ache and feeling like you've been run over by a truck). Cough related to Covid-19 is suggested to be more of a dry cough without much phlegm.

Does Covid-19 cause wheezing?

Wheezing is not generally listed among the prominent symptoms seen in patients with Covid-19 infection. However, a patient with underlying asthma might well wheeze at least part of the time when symptomatic. Use your rescue medication for possible help.

Does Covid-19 cause a runny nose?

The symptoms listed for Covid-19 generally include fever, cough and shortness of breath, but a runny nose is not as common. During allergy season, a patient with allergies might well have nasal congestion along with other symptoms coming from the virus.

If I / my child is sick, do I need to pay attention to new symptoms?

During the springtime, many people are used to having mild respiratory symptoms of cough, sneezing and runny nose. These are not particularly worrisome, but a patient or parent should really pay attention if anything changes – a new or different cough, onset of fever (>100.4°), fatigue or shortness of breath. If that happens, contact your PCP right away. Don't worry so much about your "usual" ones.

What risks do we need to avoid?

Not only is it crucial to avoid contact with others, but also it is important to avoid any triggers that affect the specific patient with asthma. General airway irritants, such as exhaust pollution, cigarette smoke, paint fumes and chemicals, should be avoided. In addition, any personal triggers such as pet dander, pollens, grasses, *etc.*, should be avoided or minimized.

How can we protect our grandparent who cares for our kids?

Those who are elderly have greater risk than others from a Covid-19 infection and men do worse than women. Thus, those who are older should try to avoid ANY exposure to someone who even MIGHT be infected. Kids and grandparents will never observe “6’ physical distancing”, so protection of older caregivers means not letting them be around anyone even possibly exposed to Covid-19. Also, children generally are unable to control their coughs and sneezes and remove their secretions.

Should kids with asthma still play?

Vigorous exercise is recommended for everyone (especially after being “cooped up”). However, exercise often triggers cough, so it could lead to viral exposure if the coughing playmate were infected. Playing games that leave kids separated would be better than those with close contact, but those game characteristics are impossible to control outdoors. Playing video games at opposite ends of the couch would carry less exposure risk and (for now only) be a better socialization setting. Isolation is still a safer choice. There is less viral spread when folks are outside rather than indoors.

What dietary changes should we make?

There are no specific dietary recommendations during this pandemic. It is, however, crucial to avoid even a bit of airway drying / dehydration. Thus, drink lots. (If you breathe fast and through your mouth, you can dry out the mucus in your airways.) Dry mucus plugs can cause worse symptoms, regardless of the cause (virus or asthma). A normal balanced diet should be fine. Be sure to make up for any meals lost for children who are out of school and seniors not going to senior centers.

How can we get our medicines?

It is CRUCIAL that patients with asthma, even during a “shelter in place” order, keep taking their prescribed asthma medicine. DON’T run out (check the device’s dose counter) and be sure to have rescue medicines and spacers (if needed) in every place the person may be staying for even a few hours. Call the pharmacist to make sure they have your medicine ready and tell him / her when you plan to be there to pick it / them up.

Can Covid-19 make asthma worse – now and long-term?

There is very little information about the effect of Covid-19 on a patient with asthma. Some would wonder if it could convert someone with intermittent asthma into a case of persistent asthma. That isn’t known, so the key is to achieve control, and then maintain it, even if stronger medicines are required. A patient who suffers viral pneumonia would seem to be more likely to have a long – term deterioration.

What should a patient with asthma do for shortness of breath?

Shortness of breath (along with rather severe and dry cough) seem to be the key marker of the Covid-19 infection progressing to pneumonia, which carries a much worse risk. It

is definitely a reason to contact one's PCP right away. An asthma flare leads to breathlessness, but those flares usually respond at least briefly to bronchodilator inhalation "rescue treatments" and may not be a "new, worse" symptom compared to what the patient has suffered with previous attacks.

Is the course of improvement for Covid-19 symptoms smooth and continual?

Respiratory viruses generally cause symptoms that get worse, hit their peak and then get better (unless an asthma flare comes along). A major difference with Covid-19 is that in the face of improving symptoms, some patients can rather suddenly get worse again, even making the "mending" patient critically ill. Also, viral concentrations in the nose may peak ahead of the worst symptoms occurring. In addition, in a small group of patients in China, about half of them had virus still detected after their symptoms went away (for up to a week or more).

Is there any treatment if you get Covid-19?

Not yet outside the hospital. The only licensed virus – specific, treatment currently available for Covid-19 is a medicine called Remdesivir as well as dexamethasone, a cousin of prednisone. Remdesivir can only be given by intravenous infusion. A variety of "supportive" measures can be given – rest, hydration, nutrition, oxygen and mechanical ventilation. If a flare of asthma is triggered, then bronchodilators are needed and probably prednisone in short bursts. Many anti – viral drugs are being tested for their effect on the Covid-19 virus.

Are our pets a risk related to Covid-19?

While it is thought that Covid-19 originated and came to humans through bats, it is currently viewed as not very infectious to domestic animals / pets. However, very few, if any, pets have been tested for asymptomatic carriage of the virus. A zoo animal and a few pets have been positive for Covid-19.

Do viruses hide in dust? What's our risk? (outside, inside)

Virus particles can land anywhere, so, if "fresh", they should be able to infect from any source, including dust. However, dust, by itself, should not trigger or worsen a Covid-19 infection. Only a fraction of persons with asthma have dust as a trigger, usually as a sensitivity to dust mite protein exposure. Follow the teaching you have been given before about the best methods to control dust.

Can Covid-19 make my asthma come back?

We do not know whether asthma that has been inactive and not requiring treatment for years can be reactivated by Covid-19 infection. However, it is known that a very strong / noxious exposure can bring on asthma symptoms, so it is conceivable that Covid-19 infection might be able to reactivate dormant asthma. Only time will tell whether this happens and, if so, how often. It appears that Covid-19 pneumonia may cause long – term damage to the lungs, but how much occurs in airways is not yet known.

What's up with the new vaccines?

There are several Covid-19 vaccines under development, with 3 approved and 3 more coming along. It seems that they have come to market remarkably quickly; all of the safety and efficacy testing is being evaluated carefully. The first two to be approved require two shots, the initial one and a booster 3-4 weeks later. The first two are called mRNA vaccines because they inject mRNA (a small piece of viral genetic material) into cells to make them produce the "spike protein" of Covid-19 which is the protein that

helps the virus attach to and infect the patient's airway cells. The Pfizer vaccine requires being kept at "super-cold" temperatures to stay stable and effective. With each vaccine, many thousands of volunteers have been tested, with 9 out of 10 being protected from Covid-19 infection. None of the vaccines have yet been tested in children. Each has been tested in multiple age ranges and in individuals of diverse racial backgrounds. Each manufacturer will report their product's safety and efficacy in each subgroup of patients according to age and racial background. It's important to realize that the Jansen vaccine (#3) came along late enough that it was being tested when some of the first highly infectious variants were in circulation (especially in South Africa), while the Pfizer and Moderna vaccines were not tested against these variants. For anyone concerned about taking the vaccine, you should talk to your PCP, your state health department or see the CDC.gov website for accurate information. DO NOT just depend on what you see on social media. There is A LOT of disinformation "out there" about the vaccines. Remember that the best vaccines cannot protect anyone if people do not get vaccinated. Covid-19 vaccines are expected to be free. They are available in limited supplies for a while and health professionals and others at high risk have been the first to be able to get the vaccines. Each state has developed its own policies for who to vaccinate, how and where to do it, and how to assure that booster shots are given when needed. There is no current information about whether people will need to be re-immunized in future years like what is done with influenza vaccine every year. Almost all research studies of any kind do not study children first (unless the condition being studied occurs ONLY in children). Thus, for a while, children will not be able to get Covid-19 vaccines because they haven't been studied in children. Therefore, the very best way to protect children from Covid-19 is to get all of the adults around the child fully vaccinated as soon as possible.

Are the Covid-19 vaccines safe? They were developed in a great big hurry, it seems.

YES, the vaccines are safe. While it seems like they have been developed in less than a year, in fact, work on vaccines for these types of viruses started around 2004 or so. As a result, the science behind these vaccines has been going on for much longer than the year that Covid-19 has been circulating. In terms of risks, people can have generalized symptoms like aches, pains, fever, headache or fatigue, as well as local pain at the injection site for the vaccine.

If I have / my child has had Covid-19, should we still get the vaccine?

YES! It is currently recommended that those with previous infection should still get vaccinated. The vaccine builds on the body's own immunity to protect the person even more. Currently, both the primary vaccine and the booster are recommended, although some new data suggests that previously - infected individuals may only need one vaccine shot and can skip the booster a month later. Stay tuned...

Can you get Covid-19 infection from the vaccine?

NO! None of the Covid-19 vaccines uses weakened whole Covid-19 viruses. Thus, it is not possible for the vaccine dose to cause a Covid-19 infection.

Can the Covid-19 vaccine affect my future fertility?

There is absolutely no information from the Covid-19 vaccines or any other vaccines to suggest that they can damage a woman's ability to have children. There are many other "rumors of risk" out there about the Covid-19 vaccines. They are all overblown and untrue as best we can tell. Go to CDC.gov to check out any specific concerns you may have.

Many minority groups are reluctant to get the vaccine. What should I do?

We STRONGLY recommend that everyone, whether in an ethnic minority group or not, should get the Covid-19 vaccine as soon as it is available. Not only have the vaccines been tested in thousands of minority volunteers and found to be safe, but also now millions of Americans have safely received the vaccines, dramatically extending the number of people who have been followed for safety issues. The vaccines have excellent safety records. Furthermore, the CDC now reports that the life expectancy of Americans actually decreased by a year in the last year, almost certainly due to Covid-19. However, among Blacks, that drop in life expectancy was nearly 3 times worse – 2.8 years! Thus, as the condition is especially dangerous in Black individuals, they should most definitely accept vaccination.

I / my child has already had Covid-19 – can we get it again? How long are we “safe”?

Being infected with Covid-19 appears to provide immunity to future infections, but it is not known how long that protection will last, and if the protection is different for a patient who did or did not have symptoms. There are a very few reports of people being infected a second time, several months after their first infection. These infections are so uncommon that we know few details that would hold true for the general population. It does, however, mean that even after being infected, one should wear a mask and use physical distancing / sanitizer practices to protect themselves / their children from additional infections. It is not known which of the variant viruses can infect people who previously got a “standard” Covid-19 infection.

What about all of the “variants” we are hearing about?

Covid-19 variants are new virus cousins that are slightly different from the viruses we have seen before (think of brothers or sisters who look different from each other or are of different size or athletic ability). Virus variants may be very similar or only slightly different. The media focuses on those which are more infectious in causing disease. Our same protection strategies will work to keep us safe. The different vaccines may have differing effectiveness in protecting against these variants and vaccines will be “adjusted” over time as different variants become dominant. That story is unfolding daily! The reason we hear so much about the variants now is because until recently the US really didn’t go looking in detail to find such genetic differences. In late 2020, the US was only 47th in the world in our Covid-19 genetic surveillance program. Again, stay tuned, but get vaccinated as soon as you can.

Why is it taking so long for me to get vaccinated?

Even though the vaccine makers have prepared millions of vaccine doses, remember that there are 330 million people in the US and that not only do the vaccines need to be prepared perfectly, but local health providers have to develop new huge vaccination programs to reach out to the communities (both wealthy and underserved). Each state has prioritized who should be the first to get protected, and all have targeted health care workers (great need to stay healthy) and then seniors (much higher risk of severe disease and death) to be at the head of the line. After that, it is usually a list of “essential workers”. The groups extend out from there as the supply of vaccine doses allow. In mid-2020, fewer than 50% of the population who were asked that they would be willing to get the vaccine. That acceptance rate has now increased to closer to 70%, showing that many more people have developed enough confidence to get the vaccine themselves.

