

**COPD FOUNDATION
COVID-19, COPD AND YOU
IMPORTANT STRATEGIES FROM LEADING MEDICAL EXPERTS ON MANAGING YOUR HEALTH**

Webinar Transcript

Moderator opens call and gives instructions for event.

Jamie Sullivan: Good evening and thank you for joining us tonight. So, to kick us off, I would first like to introduce Corinne Costa-Davis, the Chief Executive Officer of the COPD Foundation, to make some opening remarks.

Corinne Costa D...: Thank you Jamie. Hello everyone, and thanks for joining today's webinar. We are really fortunate to have our community – and I define that as our patients, caregiver physicians, researchers and all healthcare providers -- supported by the dedicated staff of the COPD Foundation and our skilled and committed physicians and research scientists. The COVID-19 pandemic presents us with a very complex and profound environment. Our collective actions are our collective commitment to our community. We care deeply for everyone's health and safety. Our relationship with you is why a webinar like this is so important to offer during ambiguous times. We're committed to serving you in ways that help make the life of COPD patients and caregivers healthy and safe. Today's webinar will provide you with medical public health updates. We welcome your questions and comments, and please continue to visit our website where we're posting important information and updates on a daily basis at COPDFoundation.org. Be well, be safe. Jamie, over to you.

Jamie Sullivan: Great. Thank you, Corinne. Once again, welcome. My name is Jamie Sullivan. I'm the VP of Public Affairs here at the COPD Foundation. I'm going to serve as your host today. To start, I'd like to just remind everyone that the information presented on this webinar should not serve as medical advice, as a substitute for medical advice, and any content discussed should not be used for medical advice, diagnosis, or treatment. Please consult with your physician before making changes to your own COPD management plan, and if you have any concerns about COVID-19 symptoms. We will be making the recording of today's webinar available no later than tomorrow at 6:00 PM Eastern Time. The information presented on today's webinar about COVID-19 was current as of today, Tuesday, March 17th, 2020. The information about the disease and the recommendations discussed today are changing rapidly, and if you're viewing the recording of this webinar, this information may no longer be accurate. So let's get started.

Jamie Sullivan: Today we'll be covering a lot of information. We'll begin by covering some basics on what we know and what we don't know about coronavirus and COVID-19, followed by information on signs and symptoms and steps to prevent the disease. We will close by discussing some tips for maintaining your emotional wellbeing during these trying times, a topic we will expand upon in a future

webinar and highlighting some the credible resources for you to stay informed and up to date. The presentations have been informed by your questions. However, we realized it is impossible to cover the entirety of information on COVID-19 in one presentation. So rest assured, if your question is not answered today, we will continue to consult with our medical and scientific experts and we'll be providing additional content online and in future webinars.

Jamie Sullivan: These topics will be covered by a panel of world-class experts. We are very grateful for their time and their dedication to informing and empowering the COPD community during a period that is also taxing on medical professionals everywhere. Our speakers today include Dr. Josh Sharfstein, the Vice Dean for Public Health Practice and Community Engagement for the Bloomberg School of Public Health. Dr. Sharfstein is also the former secretary of the Maryland Department of Health and Mental Hygiene and the host of the Public Health On Call Podcast. Next, we have Dr. Byron Thomashow. He is a practicing pulmonologist and professor of medicine at Columbia University Medical Center.

Jamie Sullivan: Dr. Thomashow is also the COPD Foundation's Chief Medical Officer and a founding board member. Next you'll hear from Dr. Robert Wise, who is also a practicing pulmonologist. Dr. Wise is a professor of medicine at Johns Hopkins University School of Medicine, and is currently the chair of the COPD Foundation's Medical and Scientific Advisory Committee. Finally, Stephanie Williams is a registered respiratory therapist and serves as the director of community programs for the COPD Foundation. As you can see, we have an incredible wealth of expertise here with us today. So without further ado, let's kick it off by hearing from Dr. Josh Sharfstein. Dr. Sharfstein, over to you.

Dr. Joshua Sharfstein Thank you so much for having me. So I'm going to start off, first of all, by thanking you for having me. I think it's such an important thing, a cause like this. This is obviously a time when people have a lot of questions and this is a great way to get a lot of information, have people be able to ask questions and start to move from just the sense of being overwhelmed into what can I do to protect myself and my family? So I'll start with some of these questions that are on the slide. First, what is COVID-19? So COVID-19 is the disease caused by a new virus. It's a type of virus called coronavirus that is different from the common cold flu or pneumonia. It's similar in some respects to SARS, if you remember that from 2003. This virus was never present in humans. It came from animals, probably originated in China in late 2019, and has now spread around the world.

Dr. Joshua Shar...: How is it spread around the world? It goes from one person to the next. It's thought to be spread like other cold viruses, other coronaviruses, through droplets, which means when you cough or sneeze then the droplets land and people touch them ... and they might touch their face and then they can get sick too. That's called droplet spread. That's thought to be the major way that this disease spreads and this virus spreads from one person to another. When can it be spread? So what happens is people are sick, and when the virus gets into their body and it causes an illness, the infection causes the virus to copy itself.

The virus takes over cells in your own body and starts to copy itself again and again and again, and then it gets coughed out or sneezed out or runs out.

Dr. Joshua Shar...: It, through that mechanism, goes from person to person. People who are coughing out huge numbers of viral particles. Those people are the most contagious. However, it has also been shown that people who don't really feel that sick can also pass it one person to the next. They also may be shedding virus. Recently, there's evidence that that may be a more important source of spread than was originally thought. Again, it is possible to be infected from touching contaminated surfaces and then touching your eyes, nose and mouth, which is why when we get to the recommendations, we're going to talk a lot about hand washing with soap and water for 20 seconds and doing your best to minimize touching of your eyes, nose and mouth. Next slide.

Dr. Joshua Shar...: How contagious is this? It is pretty contagious. It's more contagious than the flu, it's more contagious than a lot of colds, and one of the reasons it's more contagious is that none of us are immune. It's such a new virus to humans that none of us have any built-in immunity. So for the flu, for example, there are a bunch of people who've been vaccinated, there are people who've had the flu in previous years, and that gives them some immunity. So as a result, it makes it less quickly moving ... the flu does not move across the community nearly as quickly as the novel coronavirus. Right now, we have I think over 180,000 cases around the world, or it says here on the slide, and more than 7,500 deaths in the United States, 5,200 cases and more than 90 deaths with cases in 49 of 50 states. Next slide.

Dr. Joshua Shar...: So one of the points you probably have heard about COVID-19 is that most people actually do not get serious symptoms. 80% of people the symptoms are mild. That's the initial estimate, and then they just recover. For the most part, people who are more likely to have that mild presentation are people who are younger and who do not have chronic illnesses. On the other hand, people who are older and do have chronic illnesses such as heart disease, lung disease, and diabetes, are more likely to have severe disease, to need to be hospitalized or to need to go to the intensive care unit, or to need to be ventilated with a breathing machine or even to die. So this is actually a little bit less likely than the flu. The flu is more dangerous to younger people than the current new coronavirus.

Dr. Joshua Shar...: The new coronavirus is extremely dangerous to older people and people with chronic illness, much more so than the flu. Now, why? Why are older people and people with chronic conditions more at risk for severe complications? One reason is thought ... Now, the truth is we don't know yet. This is a brand new virus. We don't know for sure, but here are some theories, some of what people think is the reason. It may have to do with the differences in the immune system over time, and those differences can relate both to the way the immune system fights viruses and the way that the immune system sometimes reacts to viruses. In addition, the infection may put a stress on the body and chronic illnesses can

cause impaired organ function that may make it harder to respond to the infection, and may make it more likely for somebody to actually get sick.

Dr. Joshua Shar...: It may be that other medications or other aspects of particular diseases affect how somebody responds. There are many theories, there's a lot of research going on to figure out what is it about people with heart disease or lung disease that makes them more susceptible to severe illness and death from COVID-19. Next slide. Will people with COPD be able to get tested? Before we do that, I just want to say that even though people who have COPD and other chronic illnesses are at much greater risk than people who are younger and do not have any chronic illnesses, have a severe course of illness, that does not mean that everybody is going to get very sick. In fact, even for people who are over 80, for example, the majority of people recover and some of them have very mild illness.

Dr. Joshua Shar...: So it is not at all the case that anything is for sure, no matter what your condition or preexisting diseases are. So there obviously are a lot of questions about testing, and testing is certainly in the news. So where things stand now is that the people who really need to get tested the most are the people who are really sick because those ... It's really important for the health care workers to know who has this infection so that they can take good care of them, so that they can try ... There are all kinds of different medications and approaches being tried, so you really need to know. So if there's a limited amount of tests in a particular area, the most important population to test are the people who are really sick. The second most important population to test are people who are moderately sick, so people who have the symptoms of this, which are fever, cough, shortness of breath and they don't have any other condition (like flu), they really should be tested if they can be.

Dr. Joshua Shar...: If they're not feeling so bad that they need to go to the hospital, they can be tested in a testing center, for example. If tests aren't available, they can still go home and stay by themselves and away from everybody else and many of them will just recover. Others, if they get sicker, will then need to go to the hospital. I think that if you're wondering whether to get tested, the thing to do, first of all, is to talk to your physician. But also don't just show up at the emergency room and say, "I think I'd like to get tested." It's a much better wherever you go if it's possible for people to be prepared for someone in order to do the testing safely. Next slide. Well, those are some initial thoughts on the novel coronavirus. It's obviously a situation where this is brand new, none of us were thinking about this a few months ago, and then all of a sudden it's been so disruptive to our lives.

Dr. Joshua Shar...: I think it's really important for people to keep in mind what they can do and not be helpless or hopeless, and I'm sure we'll be talking about those things, but really washing your hands, staying home as much as you possibly can, very important. Covering your cough and limiting your exposure to other people. Just physically, not emotionally and not through the phone or FaceTime or any of the other apps. All that is fair game. It's really important to be connected, just

not exposed physically. So for more information from Johns Hopkins University, we have a map that has all the cases if you want to see that, as well as daily reports on the spread of the virus around the world and what's happening around the world. You can sign up for those at coronavirus.jhu.edu. We also have a podcast. Every day, we interview an expert, or two sometimes, on the coronavirus.

Dr. Joshua Shar...: As an example, today we released two podcast episodes. One of them was an interview with Dr. Caitlin Rivers who's an expert in social distancing, about how to self-quarantine, what that means. All those kinds of questions, she answered. We also had a great interview with a researcher who is studying a technique to respond to the novel coronavirus using the antibodies from people who have recovered. Since 80% of the people recover, there's the idea that you could take the antibodies that they've made and maybe give them to people to prevent infection and treat infection. Johns Hopkins is actually very rapidly working to stand up a study, and you might say, "Right, that seems like a strange idea," but this physician, Dr. Arturo Casadevall got the idea from studies that were published over 100 years ago and that actually worked for measles and other infections before the antibiotic era and before some of the vaccines were developed.

Dr. Joshua Shar...: They gave antibodies from people who had survived an infection to prevent serious infection in other people. That is going to be tested. It's good for me to end on that point because I think this is obviously can be a very troubling time with all the headlines, all the disruptions. But there is an enormous effort here to fight back and it's something everyone can participate in and it's certainly something that at Johns Hopkins and other places ... at Columbia, there's just an enormous commitment to finding all kinds of ways to help people do well. Thank you.

Jamie Sullivan: Thank you Dr. Sharfstein for sharing this valuable public health information, and for all of the work that's gone into your really valuable podcasts and the other work that Johns Hopkins is undertaking. So now we are going to turn to Dr. Byron Thomashow for information on the signs and symptoms of COVID-19 and what you should do if you're concerned. Byron, take it away.

Dr. Byron Thomashow Thank you, Jamie. Now, obviously this is scary. Not just for COPD patients and their families, but for everyone, and we all need to follow the recommendations aimed at establishing better control by limiting contact. We understand that people with COPD and other comorbidities are at greater risk if they get infected. But if we follow recommendations, we can hopefully limit the number infected, and it's worth repeatedly stressing as you [inaudible 00:18:53] the most infected have relatively mild disease, and that if someone with COPD gets infected, that does not mean that they will need to be hospitalized or end up in an ICU. Even if someone with COPD gets hospitalized, that does not mean they will not get better. So let's take a quick look at some of the questions that we've been getting.

Dr. Byron Thoma...: I want to stress, as Jamie started at the beginning, that this is not to [take the place of] medical advice from your doctor. You need to talk to your providers, get their impression, they know you, they know your disease state. We're just able to give you some general ideas. So one question that we've gotten repeatedly is how do you know the difference between a typical flare-up, a typical exacerbation if you will, of your COPD and symptoms of COVID-19? The answer is that it's not so simple, because the two classic symptoms of a flare-up are cough and shortness of breath, can obviously be part of the symptoms of a COVID-19 infection. But there are some clues that you can look at. Particularly, I would suggest the presence of fever. Fever is generally not a typical component of a normal COPD exacerbation, but it's very common, very, very common in the COVID-19 symptoms.

Dr. Byron Thoma...: Now, how much fever is fever? I would generally suggest that anything over 100 to 101 is something that you should call your doctor about if you've got other symptoms to go with it. But in an older person or a person who may be taking some of the nonsteroidals or anti-inflammatory drugs, even a low grade fever in the 99 to a 100 degree range is probably worth the phone call. Are there any others clues that you could gauge? Well, the classic upper respiratory symptoms, the runny nose, the sore throat, they can occur in COVID-19, but they're relatively rare. That's not something that have generally been reported, so that might be a clue. Likewise, GI symptoms are not a very ... are relatively rare symptom in a COPD exacerbation, and they're not particularly common in COVID-19, but they can occur.

Dr. Byron Thoma...: So the combination of some of these things, the combination of a cough, fever and some GI symptoms might push you more one way than the other. The most important thing I would stress is to know what your normal exacerbation is like, because we've all lived through those so you know what the symptoms generally are. If that has changed, if it's different than normal, then that's something that you should be aware of. The amount or the type of cough, or the degree of shortness of breath, potentially the use of monitoring your oxygen level and seeing what your oxygen level at rest is going down, the increased use of a rescue inhaler, all of those are potential clues that this is different and that you need to reach out and get advice. Those are the sorts of things I would talk about. The cough itself may be a little different. Most people with exacerbations and COPD have more of a productive cough. Often in COVID-19, the cough is a dry cough. So there were combination of things.

Dr. Byron Thoma...: I know that we have some people on the line who have bronchiectasis, either with COPD or on its own. What would I say in that situation? There, it's a little bit more complicated because people with bronchiectasis tend to be a little more prone to having pneumonia, and pneumonia can obviously have a fever associated with it, which has nothing to do with the COVID-19 state. So in that particular situation, it's even more important to know what your usual exacerbation is like, and if you have changes which are outside that, you really need to reach out. Jamie, next slide. Okay, what should I do if I'm concerned about having symptoms of an exacerbation or COVID-19? Well, all of us should

have an action plan, a COPD action plan that you've worked out with your provider, with your physician, with your caregivers so you know what to do. Many of us have worked with our patients to develop a care plan that would include potentially giving a short course of steroids, potentially adding an antibiotic.

Dr. Byron Thoma...: What do we do in this situation? Well, I have to stress with you, we don't know for sure yet. This is all a learning situation. This is a new disease that we're learning from. One of the things that the Foundation has done in recent days is reach out to our Medical and Scientific Advisory Council that Dr. Wise chairs to see if these experts in the field have any specific advice that they can give. I guess what I would summarize it by saying is that most of the experts surveyed felt that a steroid course still has a place in a routine COPD exacerbation even in the world of COVID-19 that we're presently living in. But if it's accompanied by a fever, certainly a significant fever, you really need to reach out to your physician and talk to them about it before we move on. That's what I would probably say. The action plan is important. We need to work our way through that. But together we can make a difference. Next slide, Jamie.

Dr. Byron Thoma...: What happens if I get COVID-19? Are there medicines? Will I have to go to the hospital? Everybody is asking those questions, not just people with COPD. I want to stress with if you have not already heard, there are no approved treatments specific for COVID-19. That does not mean that they're not being developed. There are clinical trials on the way to develop a vaccine, there are clinical trials and tests on the way evaluating existing drugs, potentially new drugs, anti-viral agents, and immuno-stimulating agents. There are a whole bunch of things that we're going to look at here. There is a degree of energy that exists in the healthcare field that can allow us to beat these issues. If you get COVID-19, ask your doctor, "Should I keep using my nebulized medications? That too is a somewhat complicated issue. The simple answer is that if you need your nebulized medicines, you should be using your nebulized medicines.

Dr. Byron Thoma...: But talk to your doctor because there is at least some suggestion that using a nebulizer in a setting of a viral illness might stimulate further spread of that viral illness. So it's something that you should discuss with your doctor. Don't stop what you're doing, talk to your doctor. Should I keep using my dose inhaler? The answer to that is yes. If I'm on a steroid, should I stop taking them and how should I stop them? Well, I've already mentioned that the experts that we've talked to do believe that if you need steroids for an exacerbation, you probably should use them. That's certainly in the outpatient setting. If you end up in a hospital, the doctors taking care of you will weigh the relative risks and benefits before making a decision where the steroids should be used. In an exacerbation in the outpatient setting, it probably is still worth doing, although we're learning.

Dr. Byron Thoma...: What about patients who are on steroids chronically? Well, as you all probably know, chronic steroids really don't have a role in COPD, and COPD steroids should be used for a short course during an exacerbation. But if you're on

chronic steroids, either as part of a COPD regimen or for another disease state, as you all know, you can't simply just stop taking that drug. There are problems potentially in stopping the drug. You should talk to your doctor, what you need your steroid medication, whether it should be tapered and how to go about tapering it. That's something your physician can talk to you about. What over-the-counter medicines are safe to relieve symptoms? Again, we don't really know the answer to that, but there is some evidence, some reports coming out of France that some of the nonsteroidals or the NSAIDs that we were using, the ibuprofen, the Advil type of drugs are potentially worrisome in this setting. Why that is is not clear, and I have not seen enough data to really convince me one way or the other.

Dr. Byron Thoma...: It may not be per se about the infection itself. It may be that these medicines have other side effects, including potentially affecting kidney function, which could be very important in somebody who is very sick. I would suggest, at this point in time, using medicines like Tylenol, for example, would perhaps be a simpler way to relieve some symptoms. But again, you need talk to your doctors because we don't know. When should I go to the emergency room? The answer, as you guys have all heard, is our medical status is already being overwhelmed and we cannot allow that to happen. We also don't want to infect others, and the point of that, we don't want to infect you. So you should go to the emergency room if you are clearly getting worse beyond what a normal exacerbation would be. Those are fevers, worsening shortness of breath, decreasing oxygen saturations, and before you go, reach out to a physician, make sure they know that you're coming, make sure they give you advice as to whether that's the best step or not.

Dr. Byron Thoma...: In general, most of these things can be handled at home and it's safer for you and everyone else. Will COVID-19 make my symptoms worse in the long-term? The honest answer is there is not enough evidence specific to COVID-19 to predict how it will affect your long-term function. There's some early data from China suggesting that it can cause some short term changes in lung function. It is not clear whether that would be further damage for you or not. Most people, I suspect, who get this, who survive this, will end up with pretty much back to where they were before. But as all of you know, even with a regular COPD exacerbation without pneumonia, without COVID-19, the exacerbations can cause further progression of the disease. It is again why it is so important to try to prevent you from getting the infection in the first place, and that's why following the recommendations you've already heard and that Dr. Wise is going to talk to you about more, is really important. Together we can get through this. I understand how scary it is for everyone, with COPD or not. Thank you Jamie.

Jamie Sullivan: Great. Thanks so much Dr. Thomashow. Seems you were able to answer many of the most common questions we've received from patients and families before this webinar. So let's hear now from Dr. Wise, who will tackle some of the important questions related to preventing COVID-19.

Dr. Bob Wise: Thank you very much, Jamie. I really want to emphasize that this condition, although it's frightening, there's a lot that we can do to prevent it and to prevent its spread, and these are questions we're going to answer over the next few slides. Next slide. So what is social distancing? We've all heard about that, and what it really means is that it's a variety of strategies that people use in order to minimize the contact that they have with other people. It's very simple arithmetic. If there's no social distancing, as was the case in China and Italy where they have severe outbreaks of this, it turns out that one person on average infects and transmits the virus to about two to three-and-a-half other people. However, with strict social distancing operations put into place, this can be reduced to one 10th, and this can break the chain of transmission of this virus, so it does not spread throughout the community.

Dr. Bob Wise: Now, social distancing, something like settling in place or isolation or quarantine is a frightening prospect. But I want everyone to think about this not as something that's a punishment, but really something that you can do, not only to prevent your own exposure to this disease, but also to prevent the transmission to your neighbors, your community, and actually to all of humanity since this is a global condition. So what do we ask people to do? First of all, you should stay at home as much as possible. Many, many companies and other institutions are having people work at home. If you can't work at home and you're concerned, take a leave of absence. Now there are certain things that you need to do if you're going to stay at home. First of all, you're going to have to acquaint yourself with a lot of services in your community that can help out. You need to have a pharmacy that can deliver medication or a mail order pharmacy. There are many grocery delivery services that can bring food and household products to your house.

Dr. Bob Wise: Also, as restaurants and cafés and bars are closing, a lot of very good restaurants are now providing delivery services or takeout, and you ought to explore this while you're sheltering in place in your home. But the key thing is to minimize contact with other people, physical contact. Now as Dr. Sharfstein emphasized, this does not mean that you need to eliminate all contact, because in this time of stress, it's very important that we stay in contact with our loved ones and use of the telephone, computers, iPads and so on, are all things that we will have to learn and make use of. Next slide. So what should you do now? I'll bet a lot of you have done this already, but first of all, you need to stock up on food. We recommend that people keep about two weeks of food in their home as well as certain types of food that they might need if they do become ill. You should make sure you have at least a month of medication on hand, and better, a three-month supply of medication.

Dr. Bob Wise: Make sure that your oxygen company is going to be in business and ensuring that they make regular deliveries, if that's important for you. For people who are on oxygen, a pulse oximeter is very important for communicating with your physician should you get sick. Also, a fever thermometer, something a lot of people don't have. We recommend that you get one. We understand that the stores have had these out of stock recently. But we've learned that a lot of

people keep two or three of them around. So if you have any neighbors who might have fever thermometers, ask them if you can borrow theirs. Make sure you disinfect it with alcohol before you use it, of course. The one thing that people don't often think about, but which is important, is to have a plan for yourself and for the people with whom you live should you or one of your family members get sick. Make sure that you know what services and caregivers are around, and what their responsibilities might look like.

Dr. Bob Wise: It's better to have this discussion ahead of time rather than waiting until things get difficult. Finally, because we talk about sheltering in place or social distancing, we don't mean that you have to stay indoors all the time. It's perfectly fine to leave the house, go for a walk. The sunshine and fresh breezes are some of the safest places to be when there's virus around. Just make sure you avoid crowds and stay at least six feet away from other people. Next slide. So a few questions have come up. First of all, people want to know whether they should cancel their routine medical appointments. From what we are seeing happening, most medical institutions are actually requesting that people cancel routine appointments so that they don't overwhelm the outpatient department, and that they can have telephone or telehealth visits instead. Should you continue to go to pulmonary rehab?

Dr. Bob Wise: The answer is no. You should not continue to go to pulmonary rehab because these are places where people can exchange viruses, and many pulmonary rehab programs are closing down because of this. But there are actually several pulmonary rehab programs that can be entertained over the internet. What about home health services? This is a harder question, and it's best to discuss with your doctor and your caregiver whether or not you need to continue to have these services in your home. Next. If you go out of the house, what kind of things do you need to take care of? Well, I think you've all heard about keeping six feet of distance between you and other people, that's because the average droplet from a sneeze or a cough goes about three feet so we add about three feet just to be secure. Wash your hands often, use hand sanitizer. Probably you should avoid using inhaled medications when you're out of the house because they could transmit a virus.

Dr. Bob Wise: Then for those people who use oxygen, we just want to make sure that you pay special attention to keeping your tubing and nasal cannula clean, and we recommend wiping them down with alcohol between each use and at least every day. We don't recommend surgical masks. They're only helpful if you get sick and you're coughing. It can prevent the transmission to other people in your home environment. Make sure that if you are going into a healthcare system for an appointment, have a plan. Some people even wait in their cars in the parking lot to go in so they don't have to sit in a busy, crowded waiting room. Next. Next slide. Our next speaker is going to be Stephanie Williams who will talk to you about your emotional wellbeing. Jamie, back to you.

- Jamie Sullivan: Thanks so much Dr. Wise for this really valuable information and all of the practical tips for reducing the likelihood that our community members will be affected. So we're now going to turn to Stephanie Williams.
- Stephanie Willi...: Hi. Thank you. There has been a lot of really good information shared and I know that everybody really appreciates the time all of these medical professionals have spent with us answering some of these questions from our community. We want to spend a little bit of time talking about maintaining your emotional well-being. It really can be challenging to find moments of peace when things like this are swirling around in the news, but we think it's important to talk about things you can do to maintain your emotional health. So when you see this slide, I think for a lot of people living with chronic conditions like COPD, you may see this and think, "Yeah, I'm always a little anxious," and that may be a true statement. Now, with the added introduction of all this stressful news about COVID-19, you may be feeling even more anxiety than usual.
- Stephanie Willi...: As we all know, anxiety can have an impact on your breathing. So let's talk for a few minutes about understanding your anxiety. There can be different factors that cause anxiety for you. It might be that you're feeling generally anxious about your COPD symptoms or about the unknowns of COVID-19. I hope that hearing from these medical experts this evening will really help to relieve some of that anxiety, but the uncertainty can still cause you to be anxious. Or you could be nervous about the impact that COVID-19 may have on your health or that of your loved ones. It may be that there is some uncertainty for you around your supply of medications, as we've heard about with these other speakers, supplies of medications or personal resources, even about controlling your own COPD symptoms or exacerbations or how to handle doctors and other types of appointments.
- Stephanie Willi...: You may be feeling anxious about the idea of being isolated and alone for a period of time, while others may be nervous about what forced togetherness might be like if they live with other people. So all of these things are reasons that might cause a person to feel an increase in anxiety during a time like this. So what do you do? Next slide, please.
- Stephanie Willi...: Coping with stress. Okay, so one thing you can do to cope with stress is to be informed. Now, there's a difference between being informed and being over-informed, and I think we may be getting to that point now in our world that we may be hitting that over-informed mark. But it is really not in your best interest to sit and watch the news updates and breaking news coverage about the COVID-19 virus. Doing so really causes a couple of problems, and one of those is that your focus is really only on all of the negative things that are happening, which can increase your anxiety.
- Stephanie Willi...: Another problem is that your view of the world is reduced to what the media is telling you. You forget to look around and see that winter is thawing in a lot of places and springtime is still happening all around us and people are still trying to help each other, and there are many hours in a day that you can actually fill

with good, healthy things. The second thing is to have a plan. I wrote specifically here about My COPD Action Plan, but not just action plans about your COPD. Have other plans too. Having plans in place in the event you need more medication or groceries, you have a plan in place if you or your loved one develops other symptoms other than COPD that you need to see a doctor for. What do you do in those circumstances? It really takes a lot of stress and anxiety out of the situation if you have done some of the preparation beforehand.

Stephanie Willi...: Are you ever going to be prepared for everything? No, but you will have some idea of what you need to do and how to get those things done. I have a saying that I used to share with my pulmonary rehab patients, luck is not a strategy, and I think this really applies in this situation. I think everyone could really benefit from making plans and having made preparations, and it's a great way to reduce stress. The third way to effectively cope with stress is by having communication with family and friends, and we will discuss more about this in just a minute, but don't forget that we are social creatures and we need interaction with other people. So talk to your family and friends and tell them what you're going to do to be prepared, ask them for help when you need it, and give help where you can too.

Stephanie Willi...: One thing for me personally is I've noticed that if I'm reaching out to people and helping others, even if it's in some really tiny or small way, it really helps me too. But there are other things that we can do to be proactive about our emotional wellbeing. Next slide, please. The first thing is maintain a routine. Some people have a hard time with this, but it really is important. Setting normal sleep wake patterns promotes emotional health, so get up in the morning, do some morning exercises, you get your shower, you make your coffee, make breakfast. Try to do the same things every day to give you a sense of control and stability in your day. Second, keep moving. Even if you can't go to pulmonary rehab or to the gym right now, there is something you can do to keep moving. There are lots of exercise ideas online. I mean YouTube is just full of those types of exercises.

Stephanie Willi...: But just doing things like making weights, out of things you already have at home, that's a good start. I used to encourage my pulmonary rehab patients to practice their pursed lip breathing or small exercises during TV commercial breaks. Many of them, they used to love to watch the morning talk shows or even soap operas throughout the day, and I would tell them to get some canned veggies or canned soups to use as weights and do arm exercises with them, or even to see how many times they could stand up and sit down during a commercial break to really exercise the lower body. Number three, it can actually be a time to enjoy hobbies or learn new things. So many apps on your phones and iPads for craft or learning languages or even playing games. One of my favorites is Words With Friends. It's an online Scrabble game that you play with people all over the world. Then you need to remember to get plenty of sleep and eat right to keep your body working like it should.

Stephanie Willi...: Then this is a tough one for me, you have to remember to drink water, lots and lots of water. I know that some of you are supposed to limit your fluid intake. So I made a note here that you should drink water as it is appropriate for you, and this is coming from a girl that loves Diet Cokes and coffee. So I'm trying to make sure I get my water intake like it's supposed to be, and I would love for you to do that too. Then I'm just going to mention these next two and then discuss them more in a moment. But does anybody remember that old Dr. Seuss book, Oh, the Places You'll Go? Well, you'll be surprised where you can virtually go these days and see lots of things, but we'll talk about that more in just a second. The next thing is to find something to smile and laugh about. Right? Those things are still out there. There is still beauty all around us, there are still things that are funny and people still say funny things.

Stephanie Willi...: Look for those things. There'll be there. My brothers and I used to play a game on long road trips where we would each have a different make and model of a car that we were supposed to look for, and then at the end of the trip, whoever had seen the most of their kind of car was the winner and didn't have to sit in the middle seat on the way home. But the idea is that whatever you're looking for, it will be there. So look for the things that bring you peace and joy and happiness. Then finally, take a break from the news. Just turn it off. If something really earth shattering happens, someone will let you know, I'm sure, but just please just take a break from it. Then the next slide. Okay. As we've heard so many times, we need to be practicing social distancing, but be careful that you don't end up practicing social isolation instead. Like I said a minute ago, we are social creatures and we very much need each other.

Stephanie Willi...: We may have to work a little harder than we usually do to keep our world expanded and open, but we can do it. There are so many ways to connect with people now. We can do it through phone or email or text, even FaceTime, Facebook, COPD360social or even a good old fashioned letter, but the point is that we need to stay connected. It's a good idea to set a certain time of day to connect and make that part of your routine too. You might even be the one that organizes a family or community check-in where you ask people to text you or check in with Facebook and let everybody know that they're okay. You can have fun with this. Be creative. Think outside the box. Make it fun or silly like sharing a daily joke for checking in, or playing a word game with everyone. You can have a lot of fun, and it can be something that you really look forward to. Then the next slide.

Stephanie Willi...: Okay. To finish up this section, I really wanted to share some ideas for resources that are available online that you might be interested in. We have one here, the NTM Info and Research Blog, Keeping Busy in the Time of Coronavirus. That's a really good link to check out. The next one is a link to a page with a dozen different museums that have put their collections online and had created virtual tours of their exhibits, and this one is really a lot of fun. I think this would be an interesting way to spend some time and see things you might not be able to otherwise. The next one is a link to some meditation and mindfulness exercises that you might try. Focusing on breathing and relaxation can be really beneficial

practices and we should probably all do more of that. Here's some links to some online book clubs. So this is for all your readers out there. If you're looking for some good books and discussion forums to share ideas and insights, this page is for you.

Stephanie Willi...: There are lots of these, I just had to choose one to put on the slide, but really check those out. Then the last one, online courses. Did you know that you could take classes from eight different Ivy League schools for free? You can check this link out. So many things to learn. The possibilities seem limitless. So I just wanted to close with the thought that there's a lot that we can do to maintain our emotional well-being, and I hope this part of the discussion has been helpful, and at this time, I will turn it back over to Jamie.

Jamie Sullivan: Great. Thank you, Stephanie, for shining a light on the importance of self-care and sharing these really proactive tips and resources that I know we all need. So to close out today's webinar, I'm now going to share a few resources you might find helpful to stay informed and up to date on the latest COVID-19 information, even though Stephanie just reminded us sometimes we have to turn off that news. So just briefly, for those who are new to our community, the COPD Foundation is a nonprofit, a patient-driven organization. We're dedicated to preventing COPD, to improving the lives of people with COPD and to finding cures. Our activities, if you haven't been involved in the past, they focus on patient-centered research, education and support in the community and online and awareness and advocacy. For more information on COPD, on the Foundation's resources and our team of staff and advisors, you can visit our website at www.copdfoundation.org.

Jamie Sullivan: What are some really valuable COVID-19 resources? First we know that you're facing information overload, and in the age of social media, it's really not easy sometimes to break through the noise to identify what sources are relevant, timely, and most importantly credible. So with that said, we would encourage you to regularly visit the sites for the Centers for Disease Control and Prevention and the World Health Organization, along with the resources shown earlier for Johns Hopkins University. These sites we know they're continually evolving and they're providing new information on the disease outbreak, and also all of the time adding practical action-oriented advice that apply to the general public. So our goal at the Foundation is to inform you of important changes in the CDC and WHO recommendations.

Jamie Sullivan: We're also adding the context and the additional information that's directly relevant to the COPD community. First, you can find our updates to our COVID-19 page at this link that you see here, or directly from our homepage by clicking at the top of the page. We will continue to post regular updates on our blog as well, including answers to the questions that you submit daily. We're getting new questions, and we will do our best to post those in a timely way. We will post updates on the national response to coronavirus and any other important issues that we think are relevant to the COPD community. So finally, please know you're not alone. As Stephanie reminded us, social distancing does not

have to equate to social isolation. Our team is really committed to helping you remain informed and engaged using a variety of different strategies that will grow and evolve over the coming weeks.

Jamie Sullivan: We hope you'll consider checking in with us and others in the COPD community on COPD360social, or sharing how you're getting by and offering support to others. We'll roll out some additional webinar content next week and you can expect to hear from our team on platforms like COPD360social or other video chat tools like Facebook Live, for example. We hope that you've taken away some practical tips today that will help you navigate the days ahead, and we urge you to remain calm but to prepare and to take the precautions that we've discussed here today to protect your family and you to the greatest extent possible. So we thank you again for joining us, and at this time, I think we're ready to take a few questions.

Moderator: Great. Just as a reminder, you can type your questions into the questions box there in your control panel. We're going to answer a couple of questions that we have time for, and any questions that don't get answered, those will be responded to and posted on the blog.

Jamie Sullivan: Great. Thank you.

Stephanie Willi...: I think I'm going to ask Dr. Wise to answer this first question because he alluded to it in his presentation. The first question would be, please explain why you stated to not use your inhaled medication outside of the home.

Dr. Bob Wise: Yeah. What we want to make sure is that if individuals have their medication and it becomes contaminated, that they make sure that it's wiped down and clean, particularly for handheld nebulizers.

Stephanie Willi...: Okay. Thank you so much. Dr. Wise, I'm just going to keep your line open so that I don't accidentally forget to unmute you at some point. Then another question would be, should we worry about eating fresh produce since someone, possibly an infected person, maybe picked and handled it recently?

Dr. Bob Wise: No. There's really no problem if you wash fresh produce the way you would handle it normally. Same thing goes for packages and food you bring back from the grocery store. After you handle things like that, just wash your hands. That's all we ask you to do.

Stephanie Willi...: Thank you so much. Dr. Thomashow, I'm going to ask this one of you. It's actually two questions that I'm going to roll into one. A person who has COPD because of Alpha-1 Antitrypsin Deficiency, does it make the person more at risk? Then the second part of that is, are Alpha-1 carriers as vulnerable for COVID-19 as ZZ Alphas?

Dr. Byron Thoma...: Those are good questions. I don't think that we know enough to answer them completely. I would suggest that people with Alpha-1 are at no greater risks than people with COPD of similar severity. But more information is necessary. What's the second part of the question? That happens when you get two part questions.

Stephanie Willi...: The first one is, are Alpha basically more susceptible [crosstalk 00:56:08] and then the second one was, are carriers more as susceptible as ZZ Alpha-1 patients, for example?

Dr. Byron Thoma...: Again, there is no data, but I would suspect that the answer to that is no.

Stephanie Willi...: Okay. Because we do have a number of healthcare providers on the line here, this question is, shouldn't all healthcare providers be tested so that patients don't get exposed as they seek testing or care? Let's let Dr. Thomashow answer that one too.

Dr. Byron Thoma...: All right. I think that right now there is still a limited amount of testing that's available. I think that as the testing becomes more available, we will be using it in many different situations including with healthcare providers, including with dentists, people who are up front with contact of people all the time. But we're not at that step yet. The first step is getting the testing available, make sure that it's necessary for those people who are at greater risk or greater concerns. There will come a time when it will be available everywhere, but we're just not there yet.

Stephanie Willi...: Okay. Another question is, do we think that the COVID-19 virus will abate some when the warm weather comes?

Dr. Byron Thoma...: Well, we can see what my colleagues say, but that has been the case with influenza for years. It was the case in the big 1918 flu epidemic. The problem with that is that we need to recognize the fact that getting better in the warm weather, which we all hope would be the case, doesn't mean that it's going away for good. Certainly in other flu epidemics, including the one in 1918, there was ... it did come back with a real virulence later that fall. On the other hand, and again I'm not a virologist, but on the other hand, I don't believe that we've had a recurrence of the SARS. So we don't honestly know the answer. We can certainly hope that it gets better in the summer and it doesn't come back, but it is better to move ahead and be prepared.

Dr. Byron Thoma...: I think one of the answers here is that we need to do a better job to be prepared. SARS was a different type of coronavirus, but clearly we're at risk of having this develop time and time again. We need to have a better approach. We need to do a better job developing vaccines, we need to do a better job having antiviral medications available, we need to push forward on those things, and now there's no excuse for saying, "Okay, it got better in the summer. It hasn't come back. We'll be okay." We together need to make this go forward.

Stephanie Willi...: Thank you so much. Then I have a question, and I'll direct this one to Dr. Wise. The comments that we've heard here today, are these also applicable to people suffering from asthma?

Dr. Bob Wise: For the most part, yes. I think that much of what we have said today would apply to asthma, as well as people who don't have any lung problems.

Dr. Byron Thoma...: Bob, if I could-

Dr. Bob Wise: Sure.

Dr. Byron Thoma...: ... [crosstalk 00:59:41] touch on that for just for a second, because we didn't talk much about inhaled corticosteroids, where the role in asthma is very clear. The role in COPD, perhaps a little less so. While I don't think we should rush and make any changes at the moment, perhaps you could comment upon that [inaudible 00:59:59]

Dr. Bob Wise: Well, in COPD, we believe that inhaled corticosteroids are mainly useful in people who have had a history of exacerbations requiring prednisone or antibiotics. If you haven't had exacerbations, then you wouldn't necessarily need inhaled corticosteroids. In asthma, inhaled corticosteroids are the basis of treatment of persistent disease.

Stephanie Willi...: Thank you. I have two more questions that we have time for here. The first one, and I'm going to direct this one again to Dr. Wise. With COPD, many of us have a wet or phlegmy cough as opposed to the dry cough that accompanies the COVID-19 virus. Is this true, and do you expect the cough to change any] in the COPD patient?

Dr. Bob Wise: Well, the best evidence I can cite for that is what happens in influenza, which has a very similar kind of infection to coronavirus. What happens is it actually infects the cells that align the airway, and these become damaged, very irritated and therefore it's a very hacking, uncomfortable cough. Over time, what happens is the lining of the airway actually more or less becomes shedded, and in the later phases, people are bringing up a very ugly looking sputum looks different than the mucoid sputum that a typical exacerbation has. The sputum is really a necrotic debris from the lining of the lung. So there's definitely seems to be, in influenza, a different kind of cough, but it's subtle and it's not diagnostic.

Stephanie Willi...: Okay. The last question I have will be for Dr. Thomashow and it's one that is addressing building immunity for the body. Do you advise people to take vitamins such as vitamin C? Would that be something that you would advise our patients to do?

Dr. Byron Thoma...: Well, people ask me that question all the time and there really just isn't a lot of data. Vitamins in higher doses can have their own side effects, for example. So when you're taking thousands and thousands of vitamins, they [inaudible]

01:03:06] potentially can cause damage. I think small amounts of vitamin C are okay. There's a lot of questions out there about using vitamin C, using zinc, using other things [inaudible 01:03:16] we just don't know. I'm not a big fan of taking extra things if you don't have to. I would suggest, and I think Dr. Wise brought it up, that it's really critically important to continue to exercise. I understand that the pulmonary rehab centers are not going to be there, that you'll not be able to go to your gym, but you can still do your regular exercise and that's really important.

Dr. Byron Thoma...: You should plan on doing 30 to 40 minutes of exercise every day, and since now many of us are not at work all the time, those are things that we need to do. That's what I would suggest. I would suggest if you eat well, you drink your fluids, you exercise, that's the most important thing. We will get through this. This is not simple and we all understand that, and it's scary for all of us. But not only can we get through this, we will get through this.

Jamie Sullivan: Thanks so much Dr. Thomashow and Dr. Wise for answering these really fabulous questions. We know that we have a ton more questions, are all very important to get to. However, we're a little bit over time, and so out of time today on the webinar, but as we've said in the past, we will make sure that we get you answers. We will download all of these questions and work with our team of medical experts to post answers in the coming days on our blog. You will receive a notification when the recording to this webinar is posted on our website within 24 hours. So I just wanted to reiterate our thanks to our speakers, and of course all of you for joining today. Like Dr. Thomashow said, we will get through this together, and we again urge you to please stay well and stay engaged, and with that I will close the webinar. Thank you again.