Disasters Strike–Are You Ready?

Developing a disaster preparedness plan when you have a chronic lung disease
**Chronic obstructive pulmonary disease (COPD)** is a term used to describe chronic lung diseases including emphysema and chronic bronchitis. This disease is characterized by breathlessness.

The COPD Foundation’s mission is to prevent COPD, improve the lives of those affected, and stop the progression of COPD.


This educational material was created by the COPD Foundation.
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Disasters Strike—Are You Ready?
Developing a disaster preparedness plan when you have a chronic lung disease

Thinking about a disaster can be scary and just “too much” for anyone, but especially for someone with trouble breathing. You may have COPD, asthma, pulmonary fibrosis, bronchiectasis, nontuberculous mycobacterial lung disease (NTM), or another chronic lung disease. This Disaster Preparedness Plan (DPP) will guide you step by step to put a plan in place before a disaster happens. Following this process will:

• Help you think through what you need before it happens.
• Give you information on where and how to get help.
• Provide tips for you to breathe as well as possible throughout the crisis.

Show this booklet to your family, friends, caregivers, neighbors, and anyone else in your personal support network. They may have more ideas for ways to help you. They may understand some technology better than you and know of other resources that can help you. This might even prompt them to work on their own disaster preparedness plan.

Along with this Disaster Preparedness Plan booklet, you received a COPD Foundation Disaster Preparedness Plan folder. You will find forms, lists, and other disaster-related papers in this folder. Keeping everything together will make it easy to find what you need when you need it. The \text{\textcolor{red}{\textdegree}} tells you to get something out of your folder that will help you as you plan.

Take the time now to do what you can to plan ahead. If you do, you will be more likely to stay safe and well during a disaster. You’ll have confidence in knowing you’re prepared.
Section 1 - Plan
Starting to plan and finding out what you need

The most important step in being prepared for a disaster, or any emergency, is planning. Have a good solid plan, ahead of time, before something happens.

What types of disasters are likely to happen where you live?

Disasters can happen anywhere, but some areas are more likely to have certain types of events. Depending on where you live, you may be likely to experience snow, ice, and freezing temperatures; heat and extreme dust conditions; hurricanes, tropical storms, tornadoes, and severe storms; wildfires; flooding; or a combination of these. Think about what types of problems are most likely to happen where you live.

Some areas are more likely to lose power while other areas may have water rationing or lose major service like mail delivery and home health. Living near busy highways, railroads, waterways, and factories may pose a threat for chemical spills or fires. Think about the risks near you and even the unlikely, but possible, dangers in your area.

Do you live in the city or country?
Are you in the city where there are a lot of people around? Are you in a rural area where help might be farther away?

What kind of home to you live in?
Do you live in a single-family home? A mobile home? Do you live in an apartment building or condo? Are you on the first floor or upstairs? Is there an elevator? What would you do if the elevator did not work? Take a tour of your building. Know the location of emergency exits.
Do you have specific medical needs?
Do you need equipment that runs on electricity? How long do battery back-ups work? Are you unable to walk or do you have limited mobility?

Chart your plan

✓ You can find a blank If...Then...Disaster Plan chart in your COPD Foundation Disaster Preparedness Plan folder.

The “If…Then…” Disaster Plan is the first step in putting together your personal disaster preparedness plan. This If…Then…plan shows you examples of possible problems and how to start thinking through them. See an example of the “If...Then...” plan on the next page. Write down possible disasters and dangers and how they might affect you. Think about how to plan for each of them.

For example, a tree can fall or blow down and cut off your electricity. It may also block your street. To prepare for this, take a tour of your neighborhood. Learn different ways to go if your street is blocked. Make a note of how you normally leave your home and how you would leave if you had to go another way. Think about all the possible things that each kind of disaster might mean for you. For example, if you live near a river that could flood, you might move to an upstairs level of your home, you might go to the home of family or friends, or you might go to a shelter outside the flood zone.
### If...Then...Disaster Plan

<table>
<thead>
<tr>
<th>Disaster/Hazard</th>
<th>Effect on me</th>
<th>What can I do now</th>
<th>What should I do if it happens?</th>
</tr>
</thead>
<tbody>
<tr>
<td>I live 1/4 mile away from a river - it floods every spring.</td>
<td>If it floods, my house might flood.</td>
<td>Buy a weather radio. Arrange for a wheelchair and help in case I need to evacuate/leave.</td>
<td>Leave/evacuate before a flood gets to my living space.</td>
</tr>
<tr>
<td>I live in an area where tornados are common.</td>
<td>A tornado could damage or destroy my home.</td>
<td>Locate the nearest underground tornado shelter - arrange for help to get there. Store spare oxygen or medications in the shelter if possible.</td>
<td>Get to the nearest shelter underground.</td>
</tr>
<tr>
<td>There is a serious disease outbreak in my area. A family member is sick so I may have been exposed.</td>
<td>I might become sick.</td>
<td>Call my doctor to see if there are things I can do now. Make sure my Go Kit is by my door in case I need to go to the hospital.</td>
<td>Stay at home and away from family members, particularly those who are sick. Monitor my COPD and other symptoms and keep in touch with my health care team.</td>
</tr>
<tr>
<td>I live where hurricanes/cyclones hit at least once a year.</td>
<td>I often lose power for several hours or days.</td>
<td>Buy a power bank portable charger for my phone (and other important electronics). Make sure I have foods that do not require the refrigerator to last me for at least seven days.</td>
<td>Follow my plan to leave, if necessary, and keep in touch with my personal support network. Keep my cell phones, basic radio, and weather radio charged and working.</td>
</tr>
</tbody>
</table>
**Things to consider as you write your If...Then... Disaster Preparedness Plan**

**Helpful services**
Contact your local government to find out about the types of disasters and/or hazards most likely in your area. Ask about warning systems like sirens, bus, taxi, subway, van services, evacuation routes, and medical care sites. See if there are social services that can help you. Start to gather phone numbers for these services. We will talk about making a contact list in Section 2. To learn more about wireless emergency alerts, go to: https://www.ready.gov/alerts.

**Radio and television**
One of the best ways to stay informed about a disaster near you is to listen to your local radio or TV stations. Radio stations will broadcast official updates during a disaster. You can use a battery-operated AM/FM radio for updates—they do not have to cost much, even if the power is out. A small radio and/or TV that runs on batteries or is hand crank is another option.

*Keep several flashlights with fresh batteries in each room, if possible. These flashlights are usually easy to find in most stores.*

**Weather radios and applications (apps)**
A weather alert radio can give you the weather forecast and alert you if bad weather is coming. Most areas of the U.S. are within range of a national weather service radio station which provides emergency alerts. Weather alert radios can also warn you of other types of events such as a chemical spill, riots, and AMBER or Silver Alerts. These radios are available online. Weather radios may be operated by battery, solar power, or crank.
Weather-related cell phone apps are available, as well. Most of them are free to download to your smartphone or tablet. They provide a great deal of news about activity in your area.

**Generators**
If the power goes out, generators make their own electrical power using gasoline or solar power. They can be a great help but must be used safely! Generators must be used outdoors and away from doors and windows. They should NEVER be used indoors or inside a garage! Doing this is extremely dangerous and can result in death.

Be careful when putting the fuel into generators because there are fire hazards when working with gasoline. Make sure you read and follow all instructions that come with a generator. If you are unable to start your generator yourself, arrange for someone who lives nearby to help you. Start thinking about this now before you would need it.

*If your power is out, open your refrigerator only if you have to. Keeping it closed will keep food colder, longer. Try to stay in one room with the doors closed to maintain heat or cooler air.*

**Small portable generators**
A small portable generator can power one or two circuits. It can run for up to four hours on one gallon of gasoline. This type of generator can power an oxygen concentrator, a small electric heater, refrigerator, or a light (not all at the same time).

Larger portable generators can power more devices and offer an electric start. A larger portable generator uses more gasoline. A 2000-watt generator can be purchased for $300–450.
If using a small portable unit, be sure to store five gallons of gasoline or more in a place that is safe but easy to get to for an emergency or disaster.

**Whole house generators**
A whole house generator has even more power, but costs more and requires more gasoline or natural gas that you will need to keep up to date. It can power most or all essential electrical needs in your home. Have a licensed electrician connect your whole house generator to the electrical system in your home. Do not attempt to do this yourself. For more information, check with your local home builders’ association.

*The cost of generators, if used to run life support equipment, may be tax deductible.*

**Alternate heat sources**
An alternate heat source such as a gas log fireplace or a natural gas wall heater can keep one room warm if you close the doors to other areas of your home. But remember that many gas log fireplaces have an electric starter that will not work if the electricity is off. Call a local heating/cooling company that you trust. Tell them about your medical needs and ask how to use these heaters safely and how your gas fireplace starts. Avoid using a kerosene heater. These heaters can produce fumes which may cause trouble for people with chronic lung disease.

*If you are on oxygen, don’t depend on candles! The open flame can be dangerous when using oxygen.*
Planning for staying well

My COPD Action Plan
The My COPD Action Plan helps you manage your COPD. It allows you to plan ahead with your health care professional so you can manage your COPD every day in normal times, and every day during a disaster. The My COPD Action Plan can be made just for you using your unique triggers and warning signs. It will help you prepare for flare-ups so you can take action before they happen or get worse. The interactive My COPD Action Plan is also in the COPD Pocket Consultant Guide (PCG) mobile app. You can see an image of this in Section 6.

You can find the My COPD Action Plan in your Disaster Preparedness Plan folder. Take it to your next doctor’s office visit to make sure you have all the right medicines and numbers to call. Information on the PCG mobile app is on the Resources page at the end of this booklet.
Medicines
Work with your health care professional and pharmacist to make sure you have at least a one-week supply of medicines with you. If the event will last longer, for example an epidemic or pandemic, you will need supplies to last longer. If you get your medicine from a local pharmacy, ask if they will deliver to your home.

The COPD Pocket Consultant Guide (PCG) mobile app
The PCG mobile app features a track for patients and caregivers in addition to a track for health care professionals. This free app is designed to improve COPD management and communication between you and your health care team. See Section 6 for another image of the PCG action plan.

Some features of the PCG mobile app are:

- Interactive My COPD Action Plan and tracking calendar
- Inhaler and exercise videos
- Activity tracking
- Wallet card to track important information, such as medicines and immunizations
- “For My Next Visit” prompts and reminders
- Instructional inhaler and nebulizer videos
- Exercise videos
- Educational materials
You have now completed Section #1 on Planning!

You’re off to a good start by finding out what types of disasters and hazards are likely in your area and how they might affect you. You have written steps on what to do, now and later. And you have begun to think about contact information for your personal support network, community agencies, power, utilities, and emergency services.

Keep going and you’ll be well on your way to having a safe and effective way to respond in case of a disaster.
Section 2 - Communicate
Putting together your emergency contact list and personal support network

Knowing who to talk with and how to reach them is important any time, but especially in an emergency or disaster. It’s important to know how to contact emergency services, family, friends, neighbors, health care professionals, and others. It is just as important to let people know how to reach you and tell you where you might go if there is a disaster.

Make a contact list
✓ You can find the Disaster Preparedness Plan Contact list in your Disaster Preparedness Plan folder.

As you read this section, you can fill in your list. When your list is complete, make two more copies. Keep one in your folder, one by your phone, or in a central place like on the refrigerator or bedside table, and the other one in your Go Kit (section 3).

First-line emergency phone numbers
In the United States, the emergency number you’re most likely to use is 911, but it may be another number where you live. In addition to this number, have the phone numbers (emergency and non-emergency) for each of the following:

- Emergency medical service (ambulance)
- Fire department
- Police department
- Health care professional/clinic
- Hospital
- Red Cross or similar support organizations
Ask the Red Cross, Salvation Army, or other groups about shelter locations. Find out if there are “special needs” shelters in your area to help people with medical needs and/or pets. In the case of a disease outbreak, check if there are shelters especially for people with special needs, including those who have tested positive for the disease.

Tell your local emergency services about your limited mobility ahead of time. You may have to go to a shelter or safe area earlier than your neighbors, but you will get the help you need sooner.

Second-line contacts
The next section in your contact list includes power and other utilities, local government, public health department, durable medical equipment groups, and medical alert services. Some services have programs to help their customers who have medical needs. Make them aware that you have special medical needs with these three steps:

1. Call
2. Tell
3. Ask

1. Call these services. Ask to be connected with the department that works with customers who have special medical needs.

- Electric utility
- Natural gas utility, propane, or other heating fuel provider
- Water and sewer, or septic, service provider(s)
- Local government for your city, town, borough, village, or county
- Community emergency response team (CERT) if there is one in your area
- Oxygen supplier
• Visiting nurse
• Public health department
• Medical alert services
• Oxygen/medical equipment provider

2. Tell them about your special needs. Here are some examples that often use electricity:

• Home medical equipment, such as an oxygen concentrator, CPAP, BiPAP, or ventilator that requires electricity
• Daily or timed medications that must be refrigerated
• If you are unable to move around your home without a motorized chair or scooter
• Extra oxygen supply in case of emergency (be sure to tell them your liter flow)
• Electric bed with or without a special air mattress
• IV pump
• Daily help with suction or mobilizing mucus
• Other medical devices that require electricity
• Pets or service animals that will require care
3. Ask questions about services that might help you with your medical needs

- What help is available to me in case of a disaster?
- I have a *Physician/Clinician Certification of Serious Illness or Need for Life Support* signed by my health care provider. I can send that to you, or is there a form that you require?
- What’s the best way for me to contact you in an emergency?
- Are there special needs shelters available in this area?
- Is there a local or regional plan to make oxygen available if my local provider is unable to deliver oxygen?
- What oxygen systems are available for back up if my electricity goes out? How long do they last?
- Is there a battery back-up available for my nebulizer, CPAP, BiPAP, ventilator, or scooter?
- Can my service animal go with me to shelters or the hospital?

You can find the Physician/Clinician Certification of Serious Illness or Need for Life Support in your Disaster Preparedness Plan folder.

**Methods of communication**

It seems that every day we rely more on a smartphone, tablet, computer, or some other electronic device for communication. In a disaster, some of this technology might not work. Electricity and internet services may not be working or working well, so you will need a backup for communication.
What are the different types of communication?

Landline phone
The old-fashioned landline telephone is a time-tested tool. Even when the power goes out, landline phones may still be working. There is often no substitute for landline phones during an emergency or disaster. However, sometimes phone lines are also down during a disaster so plan more than one backup if possible.

Cordless system
There is a big difference between a regular landline phone and a cordless telephone system in your home. A cordless telephone that runs off one base station in your home uses electricity as well as the traditional phone line. If you lose power, that phone will not work when the battery runs out.

Cell or internet phone
Many people give up their standard telephone service in favor of cell phones or internet phones. These are lightweight, portable, and easy to use. Cell phones can be used to send text messages. Often a text message will get through when voice call doesn’t.

However, cell phones have some drawbacks. They are battery operated and need to stay charged. Cell phones rely on digital towers so some areas may not have reliable cell phone service. If a cell tower is damaged or loses power, or too many people are trying to make calls at the same time, the cell phone may not work.

Check into getting a power bank portable charger for your computer. This can also charge a cell phone or tablet. You can find these units at stores that sell electronics or appliances. Make sure to keep them charged at all times if they are charged by being plugged in.
On the other hand, important information and quick help may be available via cell phone through social media such as Twitter and Facebook. If you don’t know how to use social media or some newer technology, talk with your personal support network – your family, friends, neighbors, and caregivers – to find someone who does. Ask that person if they will help keep you informed in a disaster and teach you how to do it on your own.

**Paper, pen, and pencil**

Don’t forget that you can use good old paper, pen, marker, and adhesive tape. Use them to write instructions, draw a map, or leave a note for your neighbors. A sign in your window or on the outside of your door can alert someone that there is a person with medical needs inside.
Your personal support network

We’ve talked about different ways to reach people and services, but this is about more than devices and technology. It’s about having people or groups you can rely on if a disaster occurs. If you haven’t done so already, now is the time to build your personal support network. In addition to family, friends, and caregivers, your personal support network includes your neighbors. Your neighbors are often closest when disaster strikes.

Talk with your family, friends, caregivers, and neighbors about their own disaster preparedness plans. Work with them to develop your plan and think about ways you might work together. For example, you might have a neighbor with a tornado shelter who is willing to help you get there and shelter you. If you don’t know how to use all the helpful apps on your phone, someone you know probably does.

Get to know your neighbors. Ask for the first and last names and phone numbers of those you trust. Add them to your list. Tell them about your special needs and your limitations. Ask them if
they are able to check in on you regularly and when a disaster is coming. Offer to do the same for them if you can.

**Talk with the people you live with and decide where to meet if you become separated.**

If you don’t have family in your town, make sure a trusted neighbor has the name and number of your nearest family member. In a disaster it may be easier to get a message to someone in another town or state than to contact someone locally.

**You have now completed Section #2 on Communication!**

You’re now on your way to developing a network of services, personal support, and methods of communication you can rely on in an emergency. Doing this will give you the best possible chance of getting the help you need during an emergency or disaster.

**You’re making good progress on learning how to develop your Disaster Preparedness Plan!**
Section 3 - Prepare

Building emergency supply kits

Another important part of preparing for a disaster is putting together an emergency supply kit. This kit should have enough supplies to last at least three days – but one week is better. Of course, some of the emergency supplies you use at home would be different than those you’d use if you had to leave your home – if you were asked to leave or evacuated. In this section we’ll talk about building two emergency kits: one to use if you stay in your home through the disaster, and one to take with you if you have to leave your home.

You will find the Go and Stay Kit lists in your Disaster Preparedness Plan folder. As you read this section, look at your lists and make notes if you need to.

The Go Kit

Your home may be the safest place for you during or after a disaster. However, it might be necessary to leave your home due to damage, flooding, or something else that might make it unsafe to stay. You may also need to leave your home to seek medical care. The Go Kit can be taken with you to the hospital or clinic.

The Go Kit should hold things for your basic needs for at least three days—a week is better. Since the Go Kit will be going with you, it must be smaller than your Stay Kit, and should be kept in its own tote or case. Choose items that are lightweight and small. Save larger, heavier items, such as canned goods, for your Stay Kit. Be certain to write your first and last name and contact information on the Go Kit tote or case. If you are going
If you get your medicines from a pharmacy (drug store) that is part of a national chain, you may get them easily from any of their stores anywhere in the country. It is likely they will ask for the name of the medicine, the person who ordered them, and the number on the bottle or inhaler.

to a shelter, there may be limits on space for personal supplies. Remember your own physical limitations when it comes to carrying your Go Kit. Your Go Kit can be part of your Stay Kit, so there is no need to have the same things in both kits; however, you may want larger sizes of some things in your Stay Kit.

Liquid oxygen cannot be stored in your portable device because it will evaporate. See your owner’s manual to find out how long liquid oxygen will last in your portable device. If you have oxygen in tanks, in the form of gas, store them lying down and secure them to prevent rolling around.

The Stay Kit

Your Stay Kit will include your Go Kit plus some other items. This kit should have enough supplies to last one week or more. Items should be kept in plastic containers or totes and stored where you can get to them easily. You don’t have to buy all the items at once. Get them as you can until your kits are complete.

In addition to the items suggested in your lists, there may be other things you want to have in your Stay Kit. Talk it over with your family, friends, and neighbors. Remember, items in your Stay Kit are in addition to your Go Kit. You may want extra supplies or larger, more durable items in the Stay Kit.
Just as important as putting your supplies together is taking care of them so they are safe to use when needed. Here are some tips to keep your supplies in good condition and ready to use:

- Keep all emergency supplies – especially canned or packaged foods or drinks that do not need to be in the refrigerator – in a cool, dry place.

- Store boxed food in tightly closed plastic or metal containers to protect them from pests and make them last longer.

- Inspect and change stored food, water, and medicine supplies every six months or as needed. Use a new packing list each time. Keep your packing lists inside the container or taped to the lid. Check expiration dates on all items.

- Store medicines in waterproof bags or containers. Label medicine containers with expiration dates.

- Throw out canned goods that are swollen, dented, damaged, or out of date.

- Update your kit as needs change.

There may be more items you wish to include in your kit. See the Resources page at the end of this booklet. The more information you have, the better prepared you will be.
Good for you! You’ve made your way through Section #3 on building your emergency supply kits!

You now know how to put together two emergency kits: one to use if you stay in your home through the disaster, and one to take with you if you have to leave your home.

In Section #4 you will learn about things to consider when deciding to stay in your home or go to another place.
Section 4 - Decide
A guide to deciding if you should stay in your home or go to another place

The decision to stay or go (evacuate) is one of the hardest decisions to make in a disaster. Nobody wants to leave their home, especially with little warning.

When deciding to stay or go, always listen to your local emergency authorities like police, fire, and public officials. They have the most up-to-date information from experts. To decide what’s best for you, look at your where you live and your needs along with updates from the radio, texts, or calls. Always remember: safety first. Your answer to the question, “Should I stay or should I go?” should be based on this: “Am I safer at home or somewhere else?”

All disasters are different. The best choices can depend on many things that affect your safety: what kind of event it is, how much warning time you have, how large of an area is affected, and how long the disaster might last. It depends upon you, your specific needs, your ability to travel, your medicines, equipment, and your need for oxygen or electricity.

A situation can change rapidly, and the plan may change as the event unfolds. Your decision may have been to stay, but the storm was worse than expected. In this case you would ask yourself, “Is my home damaged or likely to become damaged?” If so, you may have to leave.

Disasters with warning

Hurricanes and blizzards are examples of natural disasters that can be predicted with some accuracy. It is rare nowadays to be surprised by large storms such as these although we often do not
know how bad it will be or how long things may be not working. It is the same with heat waves and periods of extreme cold. There is usually advanced notice, giving you time to go over your disaster preparedness plan and decide on your safest option.

*If you will be driving to your Go Place and have time, get help putting backup oxygen in your car ahead of time.*

If your decision is to go, the best time to do it is before the disaster strikes. The roads will be safe. The weather will be less of a problem. Usually, shelters are set up ahead of a storm’s arrival. If you require the help of a personal caregiver, bring that person with you. However, if you don’t have a caregiver, you may need assistance provided by a medical shelter. Is the nearest medical shelter location part of your plan? (See Section 2 for finding out about shelter options).

**Things to ask yourself if you have to leave your home**

- Do I have a car or other ways to get to the shelter such as friends or mobility van?
- If I or someone is driving my car, is the gas tank full?
- Are the roads passable?
- Do I have a pet or service animal? A service animal would most likely stay with you, but a pet might have to go to an animal shelter.
- If I must walk, can I or do I have someone to carry my oxygen or other equipment?
Things to do if you have to leave your home

- Shut off water, gas, and electricity if you have enough time.
- Take your pets or service animals and Go Kit.
- Lock your home.
- Use travel routes suggested by experts. Don’t use shortcuts.
- When you get to a shelter, make sure it can meet your medical needs.
- Tell those in your personal support network where you are.

Disasters with no warning

Some events occur with little to no warning. While weather forecasting has improved greatly over the past several years, tornados are still unpredictable and can occur with only a few minutes warning. Earthquakes can cause massive destruction with no warning at all. Flash floods can occur quickly, miles away from the nearest rainstorm. An industrial explosion or fire can happen in an instant.

In these “no notice” events, you might have to leave quickly in order to save your own life. It is likely in this type of disaster that your local police or fire department would order you to leave/evacuate your home or neighborhood. Ask for help with getting out of your home if you need help and take your Go Kit. It is best to have the Go Kit in the car or in a place close to the door through which you will leave. In some cases, there may be unsafe conditions outside and the safest action might be to stay where you are. The police or fire department can help you make those decisions.
Congratulations! You just completed Section #4 – Deciding if you should stay or go.

The decision to stay or go is one of the most difficult decisions to make in a disaster. In this section you learned about many of the things you should take into account when deciding to stay or go. Knowing this will help you do what’s best for you and your family in the case of a disaster.

Up to now, we’ve talked about disasters such as storms, extreme weather, and other hazardous conditions. In Section #5 we will talk about a different kind of disaster – outbreak of disease.
Section 5 - Disease Outbreaks

When we think of disasters, we usually think of storms, floods, and earthquakes. But outbreaks of disease or infections can also cause a major crisis. Here are two categories of disease outbreaks:

- An epidemic involves a large number of people catching the disease or infection during a specific window of time.
- A pandemic is an even bigger outbreak of disease or infection that affects multiple countries.

**COVID-19**

The COVID-19 outbreak is a global pandemic caused by a type of coronavirus. It is different than the common cold, flu (influenza), or pneumonia. In 2020, it became a pandemic – affecting millions of people on every continent except Antarctica.

**Symptoms**

COVID-19 symptoms are the same symptoms you may get with a common lung infection, such as fever, cough, and shortness of breath. But COVID-19 symptoms may also include severe muscle pain, heart problems, loss of taste or smell, nausea, vomiting, diarrhea, and extreme tiredness that lasts for days.

**Spreading**

COVID-19 is highly contagious and is spread mostly by person-to-person contact through tiny droplets from the sneeze or cough or vigorous breathing out (like singing or shouting) of an infected person. People who don’t have symptoms can spread the virus for up to three days before having any signs or symptoms and for 10 or more days beyond that. People are contagious (able to spread the virus) for at least 10 days after signs or symptoms first appear. For people with severe infections, the time they can spread the virus may be even longer.
Flu symptoms usually appear about 1-4 days after exposure. COVID-19 symptoms usually appear 2-14 days after exposure. Because of this, individuals infected with COVID-19 can come in contact with many more people and pass the virus to them.

**Treatment**
COVID-19 is a new virus and, like all viruses, is not treatable with antibiotics. Researchers and scientists are working to find new treatments for the virus and the symptoms and problems it causes. This virus is so new, there is a lot that doctors do not yet know. Find out when and where you can get a COVID-19 vaccine that works in people your age with your health concerns.

People with COPD and other chronic lung diseases are at risk for critical, possibly life-threatening illness from COVID-19. Having a cold, pneumonia, or the flu does not mean you cannot get COVID-19, as well.

COPD exacerbations can be caused by a virus or by bacteria. Bacterial infections can be effectively treated with antibiotics. Common flu viruses are well known and may be treated by antiviral medicines—especially the flu or influenza virus.

**Death rate**
COVID-19 has a higher death rate than the flu or influenza and that is why it is so important to keep yourself safe.

**Avoiding exposure**
Here are some guidelines for trying to keep away from the virus that causes COVID-19. You can also learn how to keep yourself from getting other lung infections like influenza/flu and pneumonia and by visiting the Centers for Disease Control (CDC) or COPD Foundation websites (see Section 7 - Resources).
The best way to keep from getting sick with COVID-19 is to avoid being exposed to the virus that causes the disease. Follow these guidelines:

- Limit being with people outside your household as much as possible.
- If you must leave your home, keep a distance of at least six feet from others.
- If possible, run your errands at a time when fewer people are out and about - this may be early and late in the day. Contact local stores to see if they have special shopping hours for those with who are at higher risk. Ask if they have curbside pickup or low-cost delivery.
- Wipe your shopping cart, basket, freezer door handles, gasoline pump, and keypad with disinfectant wipes. Use hand sanitizer immediately after that.
- Use hand sanitizer right away if you handle money, a credit or reward card, keypad, or touchscreen stylus pen.
- When you get home after being out, wash your hands right away with soap and warm water for at least 20 seconds.
- When soap and water are not available, use an alcohol-based hand sanitizer (at least 60 percent alcohol).
- If someone outside your everyday circle of family must come into your home (such as a plumber or repair person), wear a mask or face covering and make sure they also wear a mask. Keep at least six feet of distance when possible. Disinfect surfaces after they touch them.
- Do not touch your face except to wash it.
If you or someone in your household becomes sick, decide on a room in your home that can be used to separate sick household members from healthy ones. If you have to share a bathroom, wipe it down after the sick person has used it. Wash dishes with soap and hot water or in the dishwasher. Consider using paper plates that you can throw away after using.

**Face masks and coverings**

Talk with your health care professional and check in the resources section to find out which face mask or face covering is best for you.

**N-95 receptor mask**

This mask should be used by doctors, health care workers, police officers, and first responders. These masks come in different sizes and must be fit-tested by professionals to make sure they work as well as possible. Avoid face masks with one-way valves or vents that allow you to breathe air and small droplets out through holes in the material. This type of mask does not keep you from transmitting COVID-19 to others. Source: CDC

**Surgical masks**

A surgical mask does not filter the air but keeps you from touching your face and lessens the chance of exposure to contagious diseases.
Surgical masks are for one-time use only.

**Cloth masks and face coverings**
These options may help prevent people who have COVID-19 from spreading the virus to others. Masks should not be worn by children under the age of two or anyone who is unconscious or unable to remove the mask without help. Some people with lung conditions feel that masks make them even more short of breath. If this happens, try different kinds of masks and see if you can slowly get used to one. Do not get a waiver for not wearing a face mask and then go out into public places. **Avoid going out**

**Medicines**
Seniors and adults who routinely take medicines should make sure they have at least a 30-day supply of those medicines on hand. Doing this will help cut down on the number of trips out in public, especially if cases of COVID-19 are spiking in your area. It’s also important to stock up on over-the-counter medicines to treat fever, cough, and other symptoms. Ask your health care professional which over-the-counter medicines are safe for you to take. Stock up also on tissues and common medical supplies. Check with your pharmacy and ask if they will deliver to your home.

Major health insurers (including Medicare Advantage and Part D) have said they will allow people to get more refills during the pandemic than they usually allow. This is true for those medicines you take everyday. Check with your pharmacy or health care clinic.
The CDC advises that if you have trouble stocking up on your medicines at the pharmacy, consider refilling them with a mail order service. You can ask your doctor to switch from a 30-day supply to a 90-day supply by mail order to make sure you have enough medicine to get through a longer period of time.

If you must go out for things you really need, the CDC has info on how to do so safely. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/essential_goods_services.html

**Home delivery**
Home delivery of groceries, personal care items, household, and other products is becoming more common. Check with your local stores and delivery apps to see what stores deliver in your area. You will want to check the cost of delivery before ordering.

**Help in your community**
The American Association of Retired Persons (AARP) has a list of organizations that may be able to provide help to you in your community. Make sure to read the AARP’s suggestions on safety and use your best judgment when interacting with community members you do not know.

*Good for you! You have now completed Section #5 – Disease Outbreaks.*

There’s a lot to learn, especially when a disease is new and unknown. Following guidelines from solid sources can help you stay as well as possible and avoid becoming infected.

*You’re almost there! One more chapter to go in your Disaster Preparedness Plan!*
Section 6 - Stay Well
Getting through a disaster physically and emotionally

*Mobility (ability to move around)*

Many people with lung disease have trouble moving about. Some may be able to walk a short way while others are unable to walk at all. If you walk with the help of a walker or cane, remember to keep it nearby throughout the emergency. If your home becomes damaged or hard to get through, you may be unable to reach your walker or cane where you left it. If you have a motorized wheelchair or scooter, make sure it is fully charged when not in use. This will keep it ready in case of a storm or another emergency.

Do you have spare batteries or a backup method to charge your batteries? A non-motorized wheelchair is a good backup. Often when disaster strikes, roads and sidewalks are covered in debris and become impassable. A standard wheelchair may be able go over obstacles more easily than a motorized scooter.

If you have caregivers in your home, make sure they know about this disaster plan, and where you would go if you had to leave your home. Be sure they know how to charge or change batteries in your motorized chair, scooter, or other medical equipment. For more information on preparing for a disaster with limited mobility, see Section 7 on Resources.
**Staying healthy - physically**

**Exercise**
Keep moving, even if it’s just to get up and stretch your legs or take a short walk around the room. Sitting still for too long can lead to blood clots in the legs, which can be dangerous. Even if you can’t get up out of your chair, march in place or pump your ankles. Rock your feet from heel to toe, heel to toe.

**Drink enough liquid (hydrate)**
Unless your health care professional has advised you to limit your water intake, drink plenty of water. Even if you are less active than usual, your body always needs water. Avoid caffeine drinks, like sports drinks, and many types of soda or pop. Stick with water.

*If you have chest pain, more shortness of breath than usual, or other warning signs, call 911. Until help arrives, take your usual medications and stay calm.*

**Other health conditions**
Most people with COPD or another chronic lung disease have other medical disorders. These are called comorbid conditions or comorbidities. It’s important to manage these other medical conditions along with your lung disease.

Here is a list of some common comorbidities for people with COPD with tips on managing them every day and during a disaster. Remember to follow your My COPD Action Plan, and if you have an action plan or guidelines from your health care professional for your comorbidities, follow those too.

**Angina** – Take any medicines you have for angina and if this does not go away quickly or is worse than usual—call 911.
**Congestive heart failure** – If you have edema (swelling due to excess fluid) in your legs or feet, put your feet up when sitting or lying down. Take your usual prescription medicines. Limit salty foods, drinks, and snacks. Check your weight every day and call your health care clinic if you also have much more shortness of breath or keep gaining weight over 3 or 4 days. Be careful of salty foods if you are not eating your usual diet or have to use your Stay Kit foods.

**Diabetes** – Take your usual diabetes medicines. Keep a protein snack (such as peanut butter, nuts, or cheese) on hand. Follow usual diet recommendations and keep active.

*Stand up and walk every hour if possible. If not possible, march in place while sitting. Lift legs and point and flex toes for five minutes every hour.*

**Heartburn (gastro-esophageal reflux disease or GERD)** – Talk to your health care professional before starting new heartburn medicines. Take your usual medicines. Follow usual diet recommendations. Sleep in a propped up or sitting position if you get heartburn.

**High blood pressure (hypertension)** – Take your usual medicines. Follow your usual diet and watch out for extra salt if you are using your Stay Kit foods or eating out. Do usual exercise and activity (see above), if possible.
Have a lung disease action plan

In Section 1 on Planning, we talked about the My COPD Action Plan on paper. The Pocket Consultant Guide (PCG) mobile app features an interactive My COPD Action Plan and many other tools to help you manage your COPD. This image shows a small part of the My COPD Action Plan in the PCG mobile app.

Staying healthy - emotionally

Living with COPD or another chronic lung disease can be stressful on the best of days. Finding yourself in a disaster, or even just thinking about it, can be scary and overwhelming. If you panic, rapid, shallow breathing can make you lose control of your breathing and send you into trouble. Here are some tips to help you cope. Practice them now, before disaster strikes.

Knowing that you have a plan is a great stress relief. Simple coping techniques can help. Stay calm and breathe. You can make it through!
**Pursed-lips breathing**

Fast, shallow breathing can make you lose control of your breathing. This breathing technique helps you focus, slow your breathing down, and stay calm. If you don’t already know about this technique, learn it now. Use it when you are active and when you feel stressed. It even works for people without COPD!

1. Breathe in through your nose (as if you are smelling something) for about 2 seconds.

2. Pucker your lips like you’re getting ready to blow out candles on a birthday cake.

3. Breathe out very slowly through pursed lips, two to three times longer than you breathed in.

4. Repeat.

**Visualization**

Picture yourself in your favorite place, feeling happy and relaxed. Do your best to keep this image in your mind and push stressful thoughts away. Focus on your pursed-lips breathing, taking in clean air and slowly exhaling any trapped air.
Faith and focus
No matter what your spiritual beliefs are, the power of positive, peaceful thoughts or prayer can be comforting and calming. Combined with pursed-lips breathing, you can help maintain inner strength and focus.

Self-talk
Is there a phrase or mantra that calms you, encourages you, or inspires you? It may be a verse based on faith or something you were taught by a wise person. Repeat it slowly and out loud.

You did it! You have made your way through the Disaster Preparedness Plan!

As a person with COPD or another chronic lung disease, you have a lot to think about when facing the possibility of a disaster. This Disaster Preparedness Plan has helped you begin that process. It has given you the tools to consider what might happen, and ideas on how you can work through it. You have learned who to call and what to ask for so help will be there when you need it. You have a list of suggested items for your Go and Stay Kits and things to think about when deciding to stay or go.

Work with your family, neighbors, and local agencies to make your own disaster plan as good as it can be. Doing this will give you the confidence and peace of mind that you can weather the storm.
Section 7 - Resources
This page provides contact information for both telephone and online resources. Ask for “disaster preparedness information for people with medical needs.”

American Association of Persons with Disabilities
Emergency Preparedness and People with Disabilities: Guidelines, Plans, and Bibliography Resources.
1-800-840-8844
https://www.aapd.com/?s=emergency+preparedness

AARP – American Association of Retired Persons
Community Connections – Mutual Aid Groups
1-888-281-0145
https://aarpcommunityconnections.org/find-group/

American Lung Association
1-800-LUNGUSA

American Red Cross
1-800-733-2767 1-800-RED CROSS
http://www.redcross.org
Tips for Seniors and People with Disabilities
http://www.redcross.org/services/disaster/beprepared/mobileprogs.html

Centers for Disease Control (CDC)
1-800-232-4636
COPD Foundation
1-866-316-COPD (2673)
info@copdfoundation.org
www.copdfoundation.org

The free Pocket Consultant Guide (PCG) app is available for download.
iOS: https://tinyurl.com/y5fahsqg
Android: https://tinyurl.com/y47do5qm

Disaster preparedness information for your State
Phone: See the first few pages of your local phonebook for your local, state, and federal government agencies.
Online: Search your state and “disaster preparedness plan.” For example, if you live in Ohio, type: “Ohio disaster preparedness plan” into your browser. This will give you information on preparing for a disaster in your own state.

FEMA - Federal Emergency Management Agency
Phone: 1-800-621-3362
www.ready.gov/
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