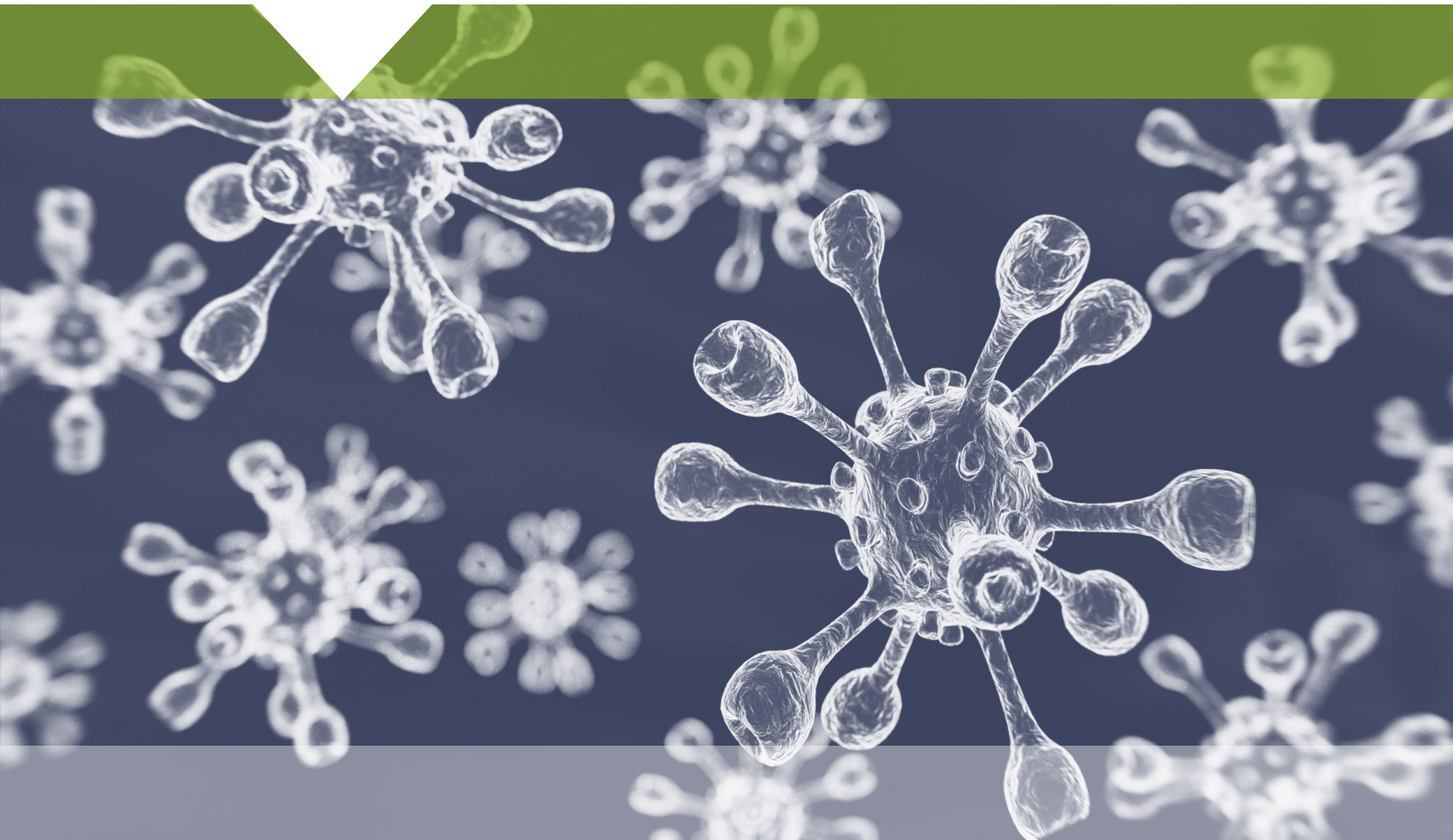




AN INFECTION CONTROL MODULE: UNDERSTANDING CORONAVIRUS



...Developing top-notch caregivers, one inservice at a time.

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An Infection Control Module:
UNDERSTANDING CORONAVIRUS

We hope you enjoy this inservice, prepared by registered nurses especially for caregivers like you!

Instructions for the Learner

If you are studying the inservice on your own, please do the following:

- Read through **all** the material. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.
- If you have questions about anything you read, please ask your supervisor.
- Take the quiz. Think about each statement and pick the best answer.
- Check with your supervisor for the right answers. You need **6 correct** to pass!
- Print your name, write in the date, and then sign your name.
- Email In the Know at feedback@knowingmore.com with your comments and/or suggestions for improving this inservice.

THANK YOU!

After finishing this inservice, you will be able to:

Describe the new coronavirus (COVID-19) and discuss where it came from.



List the signs and symptoms of COVID-19.



Describe the infection control precautions that should be followed to prevent the spread of COVID-19.



List the steps to take if you or one of your clients begins to show symptoms of coronavirus.



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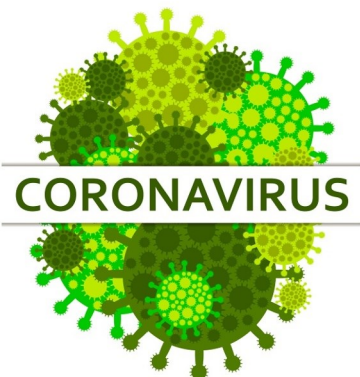
In accordance with industry standards, this inservice material expires on December 31, 2022. After that date, you may purchase a current copy of the materials by calling 877-809-5515.



An Infection Control Module: Understanding Coronavirus

WHAT'S HAPPENING?

- **Worldwide (as of March 27, 2020) more than 500,000 people have become infected by a new strain of coronavirus, known as COVID-19.**
- **More than 23,000 have died.**
- **Schools, colleges, and places of worship around the world have closed in an effort to contain the virus.**
- **Tourism is discouraged to certain countries and tourist hotspots sit eerily quiet.**
- **Entire countries in Europe are on lockdown.**
- **The virus has now infected nearly 75,000 Americans in all 50 states. Over 1,100 Americans have died.**
- **Nursing homes across the US have now shut their doors to visitors.**
- **Hundreds of flights have been cancelled and travel between the US and parts of Europe has been banned.**
- **Events that attract large gatherings of people are postponed or canceled.**
- **Hospitals are preparing to be overrun by the surge in new cases to come.**



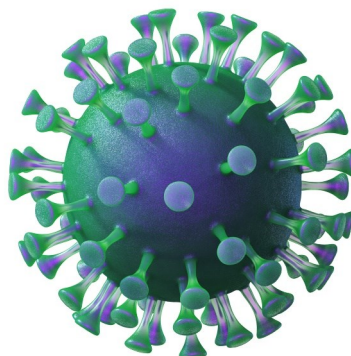
And unfortunately, it's probably going to get much worse before it gets better.

PLEASE NOTE: The guidance in this course is based upon limited information and is subject to change as more information becomes available. We will continue to update the course until COVID-19 is no longer a threat.

WHAT EXACTLY ARE CORONAVIRUSES?

Coronaviruses are a family of viruses that can infect both humans and animals. The first human coronavirus popped up in the mid-1960s. To date, there are seven (7) coronaviruses that can infect people.

The newest (2019) coronavirus (**aka COVID-19**) was first detected in China in late December, 2019.



You may also hear the virus referred to as “Novel Coronavirus” because:

- NOVEL = NEW (never seen before).
- CORONA = CROWN (named for the crown-like spikes on the virus).

Other coronaviruses you may have heard of include:

- SARS (Severe Acute Respiratory Syndrome), and
- MERS (Middle East Respiratory Syndrome)

Where did COVID-19 come from?

Experts believe the newest coronavirus probably began in an animal in China. Both MERS and SARs originated in bats. Many of the first people to become sick from COVID-19 in China either worked or shopped at a live-animal market. So, while the exact source is still unknown, researchers are fairly certain the virus was spread from animals to humans. The virus was then able to transmit from person to person, without animal contact.

Who is at risk for infection?

Older adults who have other medical conditions, such as obesity, heart disease, diabetes, or lung disease continue to be at the highest risk of serious illness from an infection with COVID-19. But no one is immune.

The CDC just released a new estimate that **38% of cases that require hospitalization are 20 to 44 years old.**



The Facts!

- The number of active COVID-19 cases grows each day, and it's likely going to get worse before it gets better.
- One reason for the increase in cases being diagnosed is the increase in testing. Before the test was widely available, it's likely people had the infection without even knowing it.
- There is currently no vaccine or cure for COVID-19, but researchers are working hard to make these available ASAP.
- About 81% of people who become infected will have a mild case and fully recover without complications.



WHAT'S NEW?

Grab your favorite highlighter!

As you read this inservice, **highlight five things** you learn that you didn't know before. Share this new information with your co-workers!



Should you wear a mask?

You **SHOULD** wear a mask if . . .

- You are a healthcare worker providing close, personal care to clients.
- You have symptoms of COVID-19.

You **SHOULD NOT** wear a mask to . . .

- Protect yourself from COVID-19 in public places.

The general public is not advised to use face masks for protection against coronavirus.

WHAT ARE THE SYMPTOMS OF COVID-19?

COVID-19 causes a range of symptoms in those infected. The following symptoms may appear 2-14 days after exposure:

SEVERITY	SIGNS & SYMPTOMS
Asymptomatic	No symptoms at all.
Mild	Mild cold-like symptoms, such as stuffy or runny nose, cough, sore throat, or achiness. Some people have also reported mild diarrhea.
Severe	Fever, cough, shortness of breath, breathing difficulties; may progress to pneumonia.
Critical	Respiratory failure, septic shock, multiple organ dysfunction or failure, and even death.

What should you do if your client shows symptoms?

Contact a doctor right away if you notice any of the symptoms listed above, especially if your client has recently travelled or has been in contact with someone who is known to have the virus.

What should you do if YOU show symptoms?

- Caregivers who have signs and symptoms of any respiratory infection should not report to work.

If you develop signs and symptoms while on-the-job:

- Immediately stop work, put on a face mask, and plan to self-isolate at home;
- Contact your supervisor so arrangements can be made to cover the client as necessary;
- Inform your supervisor of all individuals, equipment, and locations you came in contact with; and
- Contact and follow your local health department recommendations for next steps.

CARING FOR A CLIENT WITH CONFIRMED COVID-19

As the number of COVID-19 cases grows, home care and assisted living facilities will begin to see more clients who are confirmed to have the virus. In addition, you may be asked to care for someone who is showing symptoms, but not confirmed by testing. How will you care for these people?

HERE ARE A FEW TIPS:

Provide symptom treatment:

- Encourage plenty of **fluids** to stay hydrated.
- Urge the client to get plenty of **rest**.
- Some **over-the-counter medicines** may help with symptoms. Be sure to check with the client's medical provider before recommending any medications.
- For most people, symptoms last a few days and get better after a week.

Monitor for emergency warning signs:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

For medical emergencies, call 911 and notify the dispatch personnel that they have or are suspected to have COVID-19.

FOLLOW ISOLATION PRECAUTIONS

Try to keep the person isolated in one room and away from other people as much as possible. If facemasks are available, have the client wear a facemask when other people, including you, are in the room.

FOLLOW BOTH CONTACT AND DROPLET PRECAUTIONS

FOR CONTACT PRECAUTIONS:

- Wear gloves and gown for all contact with the client and the client's environment.

FOR DROPLET PRECAUTIONS:

- A mask must be worn for all contact within three feet of the client.
- If available, use an N95 mask. If no N95 mask is available, use a surgical mask. If a surgical mask is not available, as a last resort, you can use a bandana, scarf, or homemade mask.



• **N95 Mask**

Surgical Mask •



• **Homemade Masks**

HOW TO PREVENT SPREADING THE VIRUS

There are two ways to prevent the spread of infection:

- Prevent *yourself* from getting sick, and
- Prevent *others* from catching the virus from you.

To prevent yourself from getting sick:

- Wash your hands often with soap and water (preferred), or use an alcohol-based hand sanitizer.
- Avoid touching your eyes, nose, and mouth if your hands aren't clean.
- Avoid close contact (within 6 ft) with anyone who is sick.
- Avoid crowded places such as sporting events, concerts, or religious gatherings.
- To keep your immune system strong, get enough rest, eat a balanced diet, and perform some type of exercise each day.

To prevent others from catching the virus from you.

- Stay home from work, school, and public areas if you're sick, except for medical visits.
- If you must leave the house for a medical visit, call the doctor in advance and wear a face mask to protect others with whom you may come in contact.
- Separate yourself from other people and animals in the home as much as possible. In other words, try to stay in a separate room with the door closed.
- Cover your mouth and nose with your elbow or tissue when you cough or sneeze. Or use a clean tissue, then throw it away and wash your hands.
- Clean and disinfect surfaces you touch frequently.
- Avoid sharing dishes, glasses, bedding, and other household items if you're sick.



HOW DOES IT SPREAD?

There are two ways COVID-19 is spread:

- **Person-to-person:** The virus is thought to spread mainly from person-to-person between people who are in close contact with one another. Droplets produced when an infected person coughs or sneezes can travel **up to 6 feet away**. These droplets can land in the mouths or noses (or become inhaled into the lungs) of people who are nearby.
- **Contact with infected surfaces:** Droplets from an infected person can also land on surfaces or objects. When an uninfected person touches the surface or object that has the virus on it, then touches their own mouth, nose, or eyes, the virus enters the uninfected person.

A study published February 6, 2020 in [The Journal of Hospital Infection](#) found that coronaviruses can stay on surfaces such as metal, glass or plastic for as long as nine days.

WHAT DOES SOCIAL DISTANCING REALLY MEAN?

Social distancing, self-quarantine, isolation, and shelter-in-place are all terms commonly used these days. You'll hear them from politicians, newscasters, and maybe even your own family. But, what do they mean? How are they different? Here's a breakdown of what these terms mean to you:

Social distancing — Social distancing is when we purposely increase the space between people. Staying **at least six feet away** from other people can decrease your chances of catching COVID-19. Why six feet? Because that is how far the coronavirus droplets can travel when someone near you coughs or sneezes.

Social distancing will not stop the spread of coronavirus, but it can **slow it down** so that fewer people get sick all at once.

How do you maintain social distance during personal care with clients?

That's the tricky part. If you provide personal care for clients, you must get closer than 6 feet to interact with them.

Here are a few suggestions:

- Wash your hands and put on gloves *before* coming in contact with the client.
- Wear a mask for close contact with clients, even if you don't have symptoms. You can still carry and pass the virus to others even if you don't feel sick.
- If the client has symptoms, put a mask on the client.
- Limit talking while in close contact with clients.
- Turn your head or walk away (if it's safe to do so) to cough or sneeze.
- Perform personal care quickly and efficiently to minimize the time you are in close contact.
- Wash your hands after removing gloves.
- Encourage clients to wash their hands frequently throughout the day.

MORE TERMS TO KNOW

- **Self-Quarantine** — This is when you voluntarily stay in your own home to stay away from others for a period of time (such as two weeks) during the outbreak of a contagious disease.

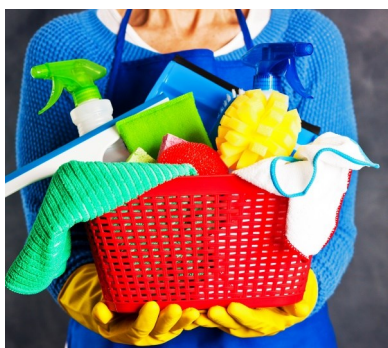
If you feel the need to self-quarantine, let your supervisor know. Ask if there are other tasks you may be able to do from home, such as make phone calls to clients or pack supplies for other caregivers.

- **Isolation** — Isolation is required for anyone confirmed to have COVID-19. It's the only way to keep people who are infected with the virus away from those who are not infected. People can be isolated at home if their symptoms are mild. Hospitals have special "isolation rooms" for people who need more care.

If you are asked to care for a client in isolation, be sure you understand how to use **standard and transmission based precautions**. Click [HERE](https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf) for instructions on putting on and taking off PPE in isolation situations. (<https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf>)

- **Shelter-in-Place** — Several cities across the US have issued "shelter-in-place" or "stay at home" orders. This means residents in those areas must remain at home unless they have an essential reason for going out. Essential reasons to go out include getting food or medicine and going to work.

In the cities where this order is in place, all travel is prohibited. Residents cannot walk, bike, drive, or use public transportation unless their travel is considered "essential."



HOW TO DISINFECT SURFACES

In homes, the CDC recommends, "routine cleaning of frequently touched surfaces (tables, doorknobs, light switches, handles, desks, toilets, faucets, sinks)."

Other recommendations from the CDC include:

- Wear disposable gloves while cleaning and discard after each use.
- Prepare a bleach solution to use on hard surfaces by mixing 4 teaspoons bleach per quart of water.

LEARN MORE!

See section called "Frequently Asked Questions about Cleaning During the COVID-19 Crisis" later in this lesson for more information.

HOW IS COVID-19 TREATED?

There is currently no specific treatment for COVID-19 infection. Supportive measures are recommended depending on the type and severity of the symptoms. Guidelines are as follows:

SEVERITY	SUPPORTIVE MEASURES
Asymptomatic	<ul style="list-style-type: none"> • Contact a doctor (and follow the doctor's orders). • Follow isolation precautions. • Monitor for symptoms.
Mild	<ul style="list-style-type: none"> • Contact a doctor (and follow the doctor's orders). • Follow isolation precautions. • Monitor for worsening symptoms. The CDC reports, "some observations suggest that <u>respiratory symptoms may worsen in the second week of illness.</u>" • Get plenty of rest and fluids. • Tylenol or Motrin can ease discomfort associated with mild, cold-like symptoms.
Severe	<ul style="list-style-type: none"> • Get emergency help for difficulty breathing. • Hospitalization is likely required. • Follow isolation precautions.
Critical	<ul style="list-style-type: none"> • Life-saving measures are required at this stage. • Isolation precautions remain.

FAQS ABOUT CLEANING DURING THE COVID-19 CRISIS

Q: Can coronavirus droplets survive on clothing?

- The World Health Organization remains uncertain about how long the coronavirus lives on surfaces, but initial testing indicates that it may survive on surfaces for a few hours or up to a few days.
- However, scientists at Harvard found that the virus is more likely to survive on hard services, like plastic and steel, than on softer ones like clothing fabric. Still, experts suggest that you remove your shoes and change out of your work clothes to prevent outside germs from coming into your home.

Q: To combat the virus, what's the best practice for doing laundry?

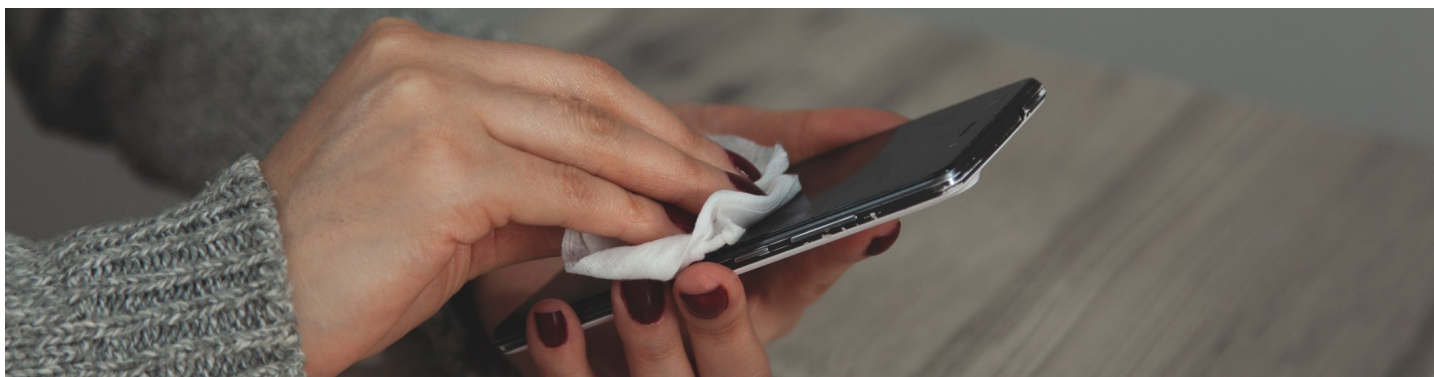
- The CDC recommends washing your own clothes using the warmest appropriate water setting, making sure to dry them completely. They also suggest cleaning and disinfecting clothes hampers. Better yet, if possible, use a disposable bag to line the hamper.
- When you are on the job, follow standard precautions for handling your client's laundry. Wear disposable gloves. To reduce the chances of spreading the virus through the air, never shake dirty laundry. Be sure to remove your gloves properly (to avoid exposure to germs) and throw them out after each use. Then wash your hands.

Q: Does it matter what type of soap I use to wash my hands?

- Fortunately, no, the type of soap does not matter. And, remember, since COVID-19 is a virus, there is no advantage to using antibacterial hand soap. The most important thing is to wash your hands for at least 20 seconds so that the combination of the soap and the friction of your hands rubbing together disrupts the germs.

Q: I always have my cell phone with me when I care for clients. Do I need to clean it?

- Yes, experts recommend that you clean your cell phone regularly. Since you can't use soap and water on a phone, they recommend something like a Clorox or ethanol wipe—something with at least 70% alcohol. Be sure to clean the back and sides as well...but avoid the ports.
- However, DO NOT use a wipe that contains bleach as it may ruin the surface of your phone. If you are unable to find wipes, try filling a spray bottle with rubbing alcohol. Spray the phone carefully, avoiding getting any liquid in the ports. Whatever cleaner you use, just make sure it has time to sit and work its magic before you wipe it off with a single use cloth.
- **NOTE:** Your best bet to protect your phone from harsh cleaners may be to first put a screen protector on your screen.



MORE FAQs ABOUT CLEANING DURING THE COVID-19 CRISIS

Q: Is there a difference between cleaning and disinfecting?

- Yes! Cleaning *removes* germs, dirt, and impurities from surfaces, lessening the risk of spreading infection by reducing the number of germs. However, cleaning does not kill germs.

Disinfecting involves using chemicals to *kill* germs on surfaces.

Your best bet to lower infection spread is to first clean a surface and then follow up by disinfecting it.

For clients who are isolating at home (and in your own home), the CDC suggests cleaning and disinfecting high-touch surfaces daily in household common areas. These items include counters, tables, hard-backed chairs, doorknobs, light switches, remotes, handles (such as the refrigerator and microwave handles), desks, toilets, and sinks.



Q: What products can I use to disinfect surfaces in my clients' homes (or my own home)?

- First, remember your standard precautions. Wear gloves while cleaning and disinfecting client areas. When you are finished, remove them properly, dispose of them, and wash your hands. NOTE: At home, if you don't have gloves, be sure to wash your hands before *and* after you clean.

If surfaces are dirty, CLEAN them first by scrubbing with soap/detergent and water. Then, if possible, DISINFECT. You can use a diluted bleach solution, an alcohol solution with at least 70% alcohol or one of these CDC-approved disinfectants: www.americanchemistry.com/Novel-Coronavirus-Fighting-Products-List.pdf (In general, look for sprays or wipes that promise to kill 99.9 percent of germs.) Be sure to follow the manufacturer's instructions on the container.

You can prepare a bleach solution by mixing 4 teaspoons of bleach to one quart of water. However, please remember to:

- Check the expiration date on the bottle of bleach. If it has expired, it will not be effective against the coronavirus.
- Ask your client or a family member if any household surface will be harmed by bleach. For example, some laminate countertops will discolor if cleaned with bleach.
- Never mix household bleach with ammonia or any other cleanser, including vinegar. It may create a poisonous gas.
- Be sure to label the bleach solution container and keep it away from children and adults with dementia or Alzheimer's disease.

MANAGING ANXIETY AND FEAR OVER COVID-19

The COVID-19 scare has many people on edge. And all of its effects on society, such as schools closing, the stock market crash, and declared states of emergency can cause extreme anxiety.

Non-stop coverage in the media, misinformation on social media, and the general uncertainty of where all this is going can make matters worse.

- **Experts advise that anxiety is a normal, protective human response.** It's when your brain scans your body and the environment for potential threats so that you can get prepared to react, if necessary.

The problem is that stress and anxiety can easily spiral into panic. Panic is NOT productive.

- ***For people who already suffer from anxiety, the loudest message coming through is that everyone is powerless to an invisible threat that has the potential to devastate individuals, families, and even entire communities.*** This fear can lead to irrational behaviors such as fixating on handwashing or wearing a mask when it's not necessary to do so.
- ***On the other side of the spectrum, there are those who refuse to see the virus as a threat at all.*** They may block it out completely, downplay the risk, and even ignore basic advice to wash hands and avoid public gatherings.
- **Both of these are stress-related responses. And neither is productive.** Problems can arise when stress spirals out of control and leaves a person to obsess over protective measures—or ignore them altogether.

The healthiest response lies somewhere in the middle of these two extremes!



If you, or someone you know seems to suffer from one of these stress responses, here are five easy steps that can help keep stress and anxiety at a healthy level:

1. **Try to stay “in the moment.”** Anxiety can spiral out of control when your mind begins to predict catastrophic future events. Just know that all you can do is take measure to protect yourself from what is happening right now. You can't predict the future.
2. **Stay informed but know when to turn off the news (and log out of social media).** It's important to stay up-to-date and know the facts. You should tune in for that. But there's a point at which news and social media stop being helpful. You could spend hours listening to headlines or scrolling tweets for alerts, but none of that makes you any safer.
3. **Get prepared.** Don't feel silly, weak, or embarrassed to follow reasonable safety advice from trusted sources. In fact, feeling prepared can give you a sense of control, which can also decrease anxiety.
4. **Practice self-care.** Get a good night's sleep. Eat a balanced diet. And get a little bit of exercise each day. These things help boost your immune system and can help decrease anxiety as well.
5. **Reach out for help if you need it.** There is no shame in reaching out to a friend, family member, your doctor, or even a mental health expert if you feel your anxiety spiraling out of control. **Help is available. You are not alone.**



Research shows that most of us touch our faces at least 16 times a day.

WHY IS THAT A PROBLEM?

Under normal circumstances, it wouldn't be that big of a deal to touch your face 16 times a day. But we are NOT living under normal circumstances right now!

Think of your face as the onramp to your body. The mucous membranes on your face (eyes, nose, and mouth) are super-highways to your respiratory system. So, if the virus is on your hand when you touch your eyes, nose, or mouth (even once), it will surely hitch a ride to your lungs and make you sick. It's that simple.

IT'S A HARD HABIT TO BREAK.

Most of us touch our faces throughout the day without even realizing it. We rub our tired eyes, itch our tickly noses, and bite off ragged fingernails without much thought at all. So, how do you break a habit that you are hardly aware you even do?

Here are a few tips you can use:

- **Wash your hands with soap and water often throughout the day.** But keep in mind, this is not the ONLY solution. It's nearly impossible to keep your hands completely germ-free. As soon as you wash your hands, you will likely re-contaminate them by touching surfaces such as doorknobs, countertops, or light switches that may hold the virus.
- **Pay close attention to your urge to touch your face.** Becoming more aware of the habit can help you catch yourself before you do it.
- **Use pleasant scents to remind you.** Rub a pleasant smelling lotion on your hands after washing them. When you bring your hand to your face, the scent will bring your awareness to what you are about to do.
- **Tie a string around your finger.** Remember the old trick of tying a string around your finger to help you remember something? It can help you break your face touching habit too. It doesn't have to be a string. You could put a rubber band on your wrist, wear a different ring, or even draw a heart on the back of your hand to remind you! Do whatever works for you.
- **Use a clean tissue.** If you just can't fight the urge to scratch your itchy nose, grab a tissue to use as a barrier.
- **Take extreme measures!** If you find yourself touching your face while sitting at your desk, turn on the "[Do Not Touch Your Face Webcam](#)." The site will alert you when you are about to touch your face!

MYTHS & FACTS SURROUNDING COVID-19

MYTH: You should stay away from people of Asian descent because they are more likely to have the virus.

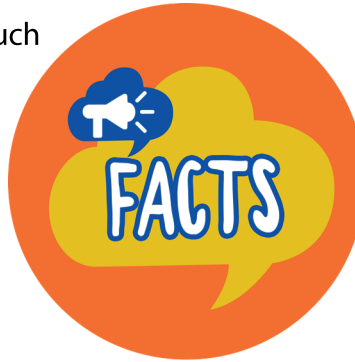
⇒ **FACT:** Anyone, no matter their ethnicity, can become infected by COVID-19.

MYTH: Products shipped from China may contain the virus.

⇒ **FACT:** It's not likely that the virus could survive that long on a package, especially after it goes through the extreme temperature changes that occur during an international flight.

MYTH: A face mask will protect you from COVID-19.

⇒ **FACT:** Professional, tight-fitting respirators (such as the N95 mask) can protect health care workers as they care for infected patients. In the general public, a lightweight disposable surgical mask will not protect you from the virus. They don't fit tightly and may allow tiny infected droplets to get into the nose, mouth or eyes.



MYTH: A coronavirus test costs \$3,000 in the United States.

⇒ **FACT:** The U.S. Food and Drug Administration has authorized the use of two tests – one from the Centers for Disease Control and Prevention and one from the New York State Department of Public Health – and neither agency charges patients for the test.

MYTH: Spraying alcohol or chlorine on your body can kill the new coronavirus.

⇒ **FACT:** Spraying alcohol or chlorine on your body cannot kill viruses that have entered your body. These chemicals can also be harmful to clothes, skin, or mucous membranes such as eyes or mouth.

MYTH: Vaccines against the flu and pneumonia can protect you against the new coronavirus.

⇒ **FACT:** Neither the yearly vaccine against the flu nor the pneumococcal vaccine against pneumonia provide protection against the new coronavirus.

PLEASE RETURN TO THE MAIN PAGE AND CLICK

Click to Complete Quiz!



HELPFUL RESOURCES

Trusted sources of information include:

The CDC at
www.cdc.gov

The World Health Organization at
www.who.int

Locate your local Health Department
at www.naccho.org/membership/lhd-directory

Dial 211
for referrals or to be connected to agencies and community organizations.

Dial 911
for emergencies only.

Call Your Doctor
if you think you have symptoms of COVID-19