

# COVID-19 GUIDELINES

## STAYING WELL AND OUT OF THE HOSPITAL (7.4.20)



### COVID-19 GUIDELINES

#### MULTI-FRONT ATTACK HOW COVID-19 AFFECTS THE BODY

Symptoms	MULTI-FRONT ATTACK HOW COVID-19 AFFECTS THE BODY		
	<b>LUNGS</b> SARS-CoV-2 replicates rapidly in lungs, damaging tiny air sacs. Immune cells set off an inflammatory response against the infection, but too much inflammation can damage lung cells and blood vessels. In blood vessels, inflammation can activate proteins that form blood clots.	<b>THROAT, NOSE, EYES</b> The CDC recently added sore throat to its symptoms list. Some patients report runny noses. Reports suggest conjunctivitis is a symptom; eye-fluid samples have tested positive for viral RNA	<b>DIGESTIVE SYSTEM</b> Some patients report gastrointestinal issues, including diarrhea. Stool samples have tested positive for SARS-CoV-2
	<b>CARDIOVASCULAR SYSTEM</b> Clots in large blood vessels can lead to heart attack, stroke or pulmonary embolisms. Micro clots can make it hard for lungs to oxygenate blood; less oxygen can lead to multi-organ-system failure. Some patients suffer heart-lining inflammation, heart attacks or abnormal heart rhythms	<b>NERVOUS SYSTEM</b> Some studies have found SARS-CoV-2 in cerebrospinal fluid. Patients have lost smell and taste. Some patients experience seizures, which are caused by abnormal brain activity, and hallucinations. Even young patients have suffered strokes, caused by clots reaching the brain. Confusion, memory loss common too.	<b>MUSCULOSKELETAL SYSTEM</b> Some patients report mild muscle and joint aches; other' pain is severe. The CDC recently added muscle pain to its symptoms list.
	<b>KIDNEYS</b> Blood clots in the capillaries may prevent blood from getting to kidneys, leading to acute kidney injury, Shock or a direct attack by the virus can also	<b>COVID TOES</b> Clots/spasms are arteries to toes can cause painful, purplish swelling in the toes. If you see this, get tested asap.	
	If you have a fever with multiple symptoms described above assume you have it. You should self-isolate at home away from family members. Wear a mask if you are infected, even a home-made one to limit spread. Wash hands etc. per CDC guidelines Confirmatory Testing.		
Testing availability	<ul style="list-style-type: none"> <li>The State and Urgent Care facilities have improved testing capacity at the Pepsi center and many other locations in Denver and throughout the state and country. Visit here for latest test locations: <a href="https://search.211colorado.org/search?terms=COVID-19%20Testing&amp;page=1&amp;location=Colorado&amp;service_area=colorado">https://search.211colorado.org/search?terms=COVID-19%20Testing&amp;page=1&amp;location=Colorado&amp;service_area=colorado</a></li> <li>We continue to do the FDA approved Vibrant blood spot test. This is not to be used for acute infection, only for evidence of prior exposure. It will also pick up active infection. Turn around is 3-5 days though, cost \$150</li> </ul>		
Pro-active Testing	<ul style="list-style-type: none"> <li>This can be done on family members that have had potential exposures when social distancing was not maintained. Especially for our teen family members who want to visit grandparents. Many will be asymptomatic without fever, but can easily spread it at family or friends' gatherings. Often testing can be done for free, but if not, we offer it for a reasonable price in office and you can submit receipt to insurance for potential reimbursement.</li> </ul>		
Testing if symptomatic	<ul style="list-style-type: none"> <li>If you have a fever, cough, sore throat, flu like symptoms, gi symptoms etc it is recommended to get tested at one of the state testing centers, or urgent care facility. If positive, then others who have been in contact need to be notified and tested too, depending on level of contact. <a href="https://search.211colorado.org/search?terms=COVID-19%20Testing&amp;page=1&amp;location=Colorado&amp;service_area=colorado">https://search.211colorado.org/search?terms=COVID-19%20Testing&amp;page=1&amp;location=Colorado&amp;service_area=colorado</a></li> </ul>		
Positive Test Results	<ul style="list-style-type: none"> <li>If testing returns positive, follow CDC protocols to self-isolate in house. Protect others by wearing a mask (if possible) and following handwashing protocols etc. Avoid petting a dog/cat that can carry the virus on their fur to others Homecare Guidelines</li> </ul>		
Homecare Guidelines	<ul style="list-style-type: none"> <li>Wearing a mask in public, washing hands, and social distancing is your best prevention</li> <li>Visit CDC at: <a href="https://cdc.gov/coronavirus/2019-ncov/index.html">https://cdc.gov/coronavirus/2019-ncov/index.html</a></li> <li>Be careful at grocery stores and clean packages/food, hands when arriving home. Consider UV-C lamp to kill virus.</li> <li>See separate pdf on immune support too.</li> </ul>		
CDC and State Covid Pages	<ul style="list-style-type: none"> <li><a href="https://www.cdc.gov/coronavirus">https://www.cdc.gov/coronavirus</a></li> <li>Colorado page: <a href="https://covid19.colorado.gov/">https://covid19.colorado.gov/</a></li> </ul>		

When to Go to the Hospital	<ul style="list-style-type: none"> <li>If your oxygen stats drop below 86% via home pulse ox testing it is time to get checked out at hospital. Most of us will run between 92-96 in Denver. Confusion, severe shortness of breath, and chest pains warrant that as well. Call your healthcare provider Immediately to get specific instructions</li> </ul>
 <b>HOME TREATMENT RECOMMENDATIONS</b>	
Alert Your Healthcare Provider	<ul style="list-style-type: none"> <li>Notify your healthcare provider if a friend/family member develops COVID-19 symptoms (e.g., fever, cough, shortness of breath) to alert them to possible future ramifications and risks related to your health condition that may come in to play. I most cases homecare is the best choice. You will need to take vitals on your family member with an automated bp cuff, pulse ox, and thermometer. Get these now if you don't have them in the home.</li> </ul>
Fever	<ul style="list-style-type: none"> <li>Treat with Tylenol every four hours as needed. Advil/Aleve may be risky, so avoid them for now.</li> </ul>
Congestion	<ul style="list-style-type: none"> <li>Do saline washes of nose a few times a day. If feeling blocked use Afrin for no more than 3 days or use Flonase longer term</li> <li>Hydrate well, run humidifier in isolation room.</li> </ul>
Vitals Monitoring	<ul style="list-style-type: none"> <li>Monitor with <b>pulse ox</b> and <b>vitals</b> at home if possible. A pulse ox can be purchased for \$20, and good quality automatic arm cuff for \$50-100</li> <li>Normal pulse oxygen is 90 plus level. If less than 86 notify us or your personal physician if concerning levels.</li> <li>Check urine output - light yellow to clear. If not, encourage increased fluid intake (Water, coconut water, electrolyte drinks)</li> </ul>
Watch Blood Pressure	<ul style="list-style-type: none"> <li>If you have high blood pressure, monitor your home bp's closely. If blood pressure exceeds 150/90 or drops below 90/60 talk to your doctor. If pulse exceeds 100 without a fever, or is less than 55 discuss with your doctor.</li> </ul>
Medication Supply and Covid-19 meds	<ul style="list-style-type: none"> <li>Keep a 90-day supply of all meds whenever possible</li> <li>Antibiotics cause more harm than good unless you are 2-3 weeks out and develop symptoms of a secondary bacterial infection, such as pneumonia or sinusitis. Tamiflu won't help either unless you test positive for flu. Antivirals must be reserved for hospitalized ICU patients, and hydroxychloroquine has not shown significant benefits in recent trials. Neutralizing antibodies, and donated plasma with antibodies from Covid 19 survivors show promise. Vaccines are best bet if/when available in the next year.</li> <li>Sinus congestion and pain, sore throat, cough is all part of a viral upper respiratory infection whether Covid-19, Flu, RSV, or other common colds. Some patients may not have a sore throat. Some may have simply loss of smell and taste in milder cases.</li> <li>Please wait at least 2 weeks before considering the possibility of a secondary bacterial infection. If needed, a treating physician will order a chest x ray and treat pneumonia if present or sinusitis if worsening sinus pressure and pain.</li> </ul>
Rest and nutrition	<ul style="list-style-type: none"> <li><b>Hydration</b> - maintain good <b>hydration</b> with water and or electrolytes (coconut water or otc electrolyte sport drinks). If your urine is turning medium-yellow and it's not related to a recent b vitamin intake, increase your hydration. Should be clear to slightly yellow</li> <li><b>Nutrition</b> - maintain adequate caloric intake, bland foods if needed when nauseated. Maintain adequate protein intake and plenty of fruits and veggies to increase vitamin c levels and antioxidant levels. At least 1500 calories/day. Supplement with 5000 IU Vit D, Vitamin C 4 grams/day, Consider Immunotonix, Host Defense immune support too. See our immune support pdf.</li> <li><b>Food Supply</b> - keep a minimum of 2 weeks + food supply etc. as advised in my <a href="#">earlier newsletter</a> for practical pandemic preparedness. Have others shop for you who are not in the infected household and leave at front door if needed.</li> <li><b>Meditate</b> – Enjoy guided meditations or other forms, listen to relaxing music to reduce stress, minimize watching the news.</li> <li><b>Isolate</b> - As recommended by your City or State guidelines to protect others.</li> </ul>
Sleep	<ul style="list-style-type: none"> <li>Sleep 10 hours nightly when possible.</li> <li>Do deep breathing to promote healthy lung function. Breath work meditation is perfect for this. Stress impairs your immune system via elevated cortisol levels.</li> </ul>
Exercise	<ul style="list-style-type: none"> <li>Light activity and exercise as tolerated will help prevent pneumonia. Get up in chair frequently and minimize bed during day.</li> <li>If you don't have the energy to do some light exercise, rest and take deep breaths periodically.</li> </ul>
 <b>CARETAKER PROTECTION RECOMMENDATIONS</b>	
Single Patient Caretaker	<ul style="list-style-type: none"> <li>One caretaker should take responsibility for patient care to limit exposure to others.</li> </ul>
How to Protect others from illness	<ul style="list-style-type: none"> <li>Sleep in another room and use a separate bathroom</li> <li>Prohibit visitors who do not have an essential need to be in the home.</li> <li>Avoid touching your eyes, nose, and mouth with unwashed hands</li> <li>Wipe down surfaces regularly with anti-viral wipes, bleach, alcohol, or other effective means.</li> <li>Clean all "high-touch" surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, and toilets.</li> </ul>

	<ul style="list-style-type: none"> <li>• Soft Surfaces exposure – carpets, furniture and clothing – Wipe down with soap and water or in the washing machine.</li> <li>• Electronics – phone, tablets, remote controls and computer – use a disinfecting wipe or 70% alcohol wipes</li> <li>• Wash your hands regularly and thoroughly, do not share the same hand towel.</li> <li>• Use paper towels.</li> <li>• Cough into Kleenex and then wash hands after.</li> <li>• Wear disposable gloves when you touch or have contact with the patient's blood, stool, or body fluids, such as saliva, sputum, nasal mucus, vomit, urine. If not available wash hands for 1-2 minutes in this case. Throw away the gloves after using.</li> <li>• If available, wear a N-95 mask, a surgical style mask, or even a homemade one to help prevent virus from spewing across the room with an unexpected cough.</li> <li>• Ok to reuse your own personal facemask. Wash if fabric, if fiber-like mask set in windowsill or use a UV sterilizing light to clear virus. Store your personal mask in a paper lunch sack with your name on it. Wash hands before touching mask.</li> <li>• Add HEPA/UV-C portable air filtration to sick patient room, and your own room to kill airborne virus. My favorite is the Germ Guardian <a href="https://www.guardiantechologies.com/air-purifiers-with-uv-hepa-filters/air-purifiers-with-uv-hepa-filters/ac4825-3-in-1-air-cleaning-system-with-true-hepa-uv-c-sanitizer-and-odor-reduction-22-inch-tower-by-germguardian.html">https://www.guardiantechologies.com/air-purifiers-with-uv-hepa-filters/air-purifiers-with-uv-hepa-filters/ac4825-3-in-1-air-cleaning-system-with-true-hepa-uv-c-sanitizer-and-odor-reduction-22-inch-tower-by-germguardian.html</a> Reasonably priced and effective for less than 100. The Molekule is overpriced at 400+.</li> <li>• Open windows to bring in fresh air when possible. While it is low-probability droplets will be able to be spread to another room, we saw what happened on the cruise ships</li> <li>• For additional information see the CDC Covid-19 homepage at <a href="https://www.cdc.gov/coronavirus/2019-ncov/index.html">https://www.cdc.gov/coronavirus/2019-ncov/index.html</a></li> <li>• Remember we are all in this together. Ask for help and support from neighbors, family and friends if needed. Help them too. This should be a practice in altruism to your community and not just about you and your family. Encourage and promote mask use for the health, wellness, and respect of others. Applying political ideology and selfish attitudes will lead to more deaths.</li> </ul>
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 <b>IF SYMPTOMS BECOME MORE SEVERE</b>	
<b>If Symptoms Become More Severe</b>	<ul style="list-style-type: none"> <li>• <b>If more serious symptoms occur</b>, the caretaker should call their doctor for evaluation and treatment. These worrisome symptoms include: <ul style="list-style-type: none"> <li>◦ Acute respiratory distress (severe shortness of breath with blue lips) confusion, chest pains, toxic appearance, severe dizziness</li> <li>◦ Low blood pressure less than 90/60 with pulse over 100, Pulse ox less than 86</li> </ul> </li> <li>• Call 911 for ambulance transport if severe symptoms. Private transportation may be ok in urgent situations but discuss with your doctor or the hospital to determine if safe, which hospital can take you, and if ok for a healthy family member to drive them. If unable to assess stability, call 911 and go by ambulance.</li> <li>• Most hospitals have limited isolation rooms, ICU beds and ventilators and may fill up quickly. You may be diverted to another hospital if one is full during spikes in Colorado or other regions.</li> <li>• Do not simply walk into a hospital/ER/Urgent Care with a family member or friend who may have the virus. Call ahead or wait in car by ambulance driveway for assistance. Of course, wear masks. You will not be admitted to hospital unless you need oxygen support or other medical issues warranting close monitoring.</li> </ul>