

Long Covid Rx:

- Sanitation strategies to control the spread of the virus
- Early home-based treatment
- Late state hospital treatment
- Vaccination

Risk of Death:

- < 50 years old risk is 0.05%
- < 18 years old close to 0%
- 7 x more children die from flu than COVID-19

Reasons for Severe Illness:

- Cytokine storm
- Blood clotting

High Risk Patients:

- Obesity
- Diabetes or pre-diabetes (> 50% of Americans)
- Lung disease
- Kidney disease
- Hypertension
- Autoimmune disease
- Undergoing cancer treatment
- Corticosteroid use

Symptoms:

- Shortness of breath
- Severe cough
- Chest pressure
- Low oxygen saturation < 90%

Common Symptoms:

- Runny nose
- Fatigue, low energy, malaise
- Body and muscle aches
- Headaches
- Dry cough
- Fever
- Chills
- Sweats
- Loss of taste or smell
- Loss of appetite or nausea
- Diarrhea not common

- Chest heaviness
- Low blood oxygen < 95%
- Rapid heart rate
- Loss of concentration

Recommendations for Home Care:

- Quarantine for 7-14 days
- Home disinfection

Nasal and Mouth Care:

This is important to do immediately after diagnosis to reduce viral load and prevent worsening of symptoms. Can be done preventively after being out in crowds or after exposure.

- Betadine (Povidine Iodine) - 2 tsp in 6 ounces of water
 - 0.6% PVP-I solution in oro-nasal spray device
 - Mouthrinse/gargle for 30s can reduce SARS-CoV-2 virus infectivity to below detectable levels.
 - Use bulb syringe to rinse out both nostrils
 - Also gargle and spit out
 - You can use these pre-made sprays
 - <https://www.betadine.ca/nasal-spray/>
 - <https://www.betadine.ca/sore-throat/sore-throat-gargle/>
 - [Povidone Iodine Mouthwash, Gargle, and Nasal Spray to Reduce Nasopharyngeal Viral Load in Patients With COVID-19-A Randomized Clinical Trial](#)
- [Listerine](#) 3x/day orally and gargled

Other Oro-Nasal Treatments in Early Infection or Post-Exposure:

- [FEND](#):
- [H2O2 0.5% mist](#)
- LL37 Nasal spray - mix 2 mg LL37 with [Xylitol nasal spray](#)
- [Colloidal Silver](#) nasal rinse and nebulization

Fluids and Hydration:

- Water with electrolytes ([Lyte show](#))
- Urine should be clear
- Drink half your weight in ounces of water or more a day

Diet:

- Whole foods anti-inflammatory diet
- Avoid all sugar and starch
- Increase intake of fruits and vegetables
- [Bone broth](#)
- Adequate protein for immune function

- No processed foods

Fever Treatment:

- Ice packs
- Ibuprofen every 8 hours 200-600 mg
- Tylenol can affect liver and impair oxygenation

Testing:

- Antigen testing
- PCR or molecular testing (can be false +)
- T Cell testing (newer test) called T-Detect
- Cytokine and Spike Protein testing
 - <https://covidlonghaulers.com>

Early Treatment is Essential:

Early treatment is essential to reduce the severity and risk of hospitalization and death from COVID-19

Lab Tests:

- [Longevity Blood Testing Panel for Men](#) and [Longevity Blood Testing Panel for Women](#) to test for:
 - CBC and chem panel
 - hs-CRP
 - Ferritin - inflammatory mediator
 - Serum Zinc
 - 25 OH vitamin D (should be over 50 ng/dl)
- D-dimer to check for clotting
- EKG and Troponin (looking for heart damage)
- [Pulse Oximeter](#) to track oxygen saturation (available at any pharmacy)

Supplements:

- [Quercetin](#) - 500 mg/day (1000 mg 2 x a day if sick)
- [Vitamin D/K2](#) - 5000 IU/day (50,000 IU/day if sick for 10 days)
- [Zinc](#) - 30 mg twice a day
 - [Zinc lozenges](#)
- Vitamin C
 - [Liposomal Vitamin C](#) - 4000 twice a day if sick
 - [Vitamin C/Zinc](#) - 2 caps/day
- [NAC](#) - 600 mg twice a day
 - [Liposomal Glutathione](#) -4 pumps twice a day
- [Curcumin](#) - 1000 mg twice a day
- [NAD+ Gold](#) - 4 pumps twice a day
- [Vitamin A](#) - 5000 IU/day or more 10,000 or 20,000 IU for a week
- [EGCG](#) - 500 mg twice a day
- [Selenium](#) - 200 mcg a day

- [Melatonin](#) - 3-20 mg at night
- [Omega-3 Fatty Acids](#) - 4 caps/day

Medications (off label use):

Anti-viral Therapies:

These are about to get a lot better - see Pfizer med below

NOTE: These therapies are not very effective once disease has progressed and patients are in the hospital but are effective as early intervention in outpatient settings.

[Ivermectin for Prevention and Treatment of COVID-19 Infection: A Systematic Review, Meta-analysis, and Trial Sequential Analysis to Inform Clinical Guidelines](#)

The data on Ivermectin are stronger than that for hydroxychloroquine

- Ivermectin -18-36 mg (0.4 to 0.6 mg/kg) daily x 5 doses (May have GI side effects)

Other Anti-virals:

- Favipiravir 1800 mg twice a day for one day then 600 mg twice a day for 5 to 30 days (inhibitor of viral RNA polymerase)

[Favipiravir For The Treatment Of Patients With COVID-19: A Systematic Review And Meta-Analysis](#)

Antibiotics:

Start at day 3-14

- Azithromycin - 500 mg po for 5 days, start only if concern for pneumonia
- Alternatively, some consider Doxycycline

Anti-inflammatory Therapies:

Start day 3-14

- Nebulized Budesonide - 1 mg/2ml nebulized twice a day
- Or Budesonide inhaler (Pulmicort Flexhaler) - 2 puffs twice a day
- Oral Prednisone - 1 mg/kg daily with taper over 10 days or Dexamethasone 6 mg a day taper over 10 days
- Colchicine (if with heart issues) - 0.6 mg twice a day for 3 days then daily for 30 days
- ASA - 325 mg daily
- [Home oxygen concentrator](#)

Anti-Coagulants (Day 7 and beyond):

- Eliquis - 5 mg twice a day or Xarelto - 20 mg daily or Pradaxa - 150 mg twice a day or Savaysa - 60 mg daily in standard doses for 30 days
- Ideally combine with Ozone

Monoclonal Antibodies:

These are the most potent and safe treatments for early treatment of COVID-19 and ideally should be given as soon as possible after you get sick. Take one of these immediately after + test or with onset of symptoms.

To find a location near you:

<https://protect-public.hhs.gov/pages/therapeutics-distribution>

- REGN-COV2 by Regeneron
 - Casirivimab / Imdevimab - 600mg/600 mg x 1 dose IV or SC within 10 days of onset of symptoms or ASAP after + test
 - May have reduced efficacy with Omicron
- Sotrovimab by GlaxoSmithKline 500 mg IV x 1 dose
 - Appears to work on Omicron
- Bamlanivimab by Eli Lilly - 700 mg IV x 1 dose and Etesevimab 1400 mg IV x 1 dose
- Tixagevimab co-packaged with Cilgavimab by AstraZeneca - packaged as Evusheld
 - May have a benefit for 6 months
 - May therefore work for prophylaxis
 - May also have benefit for Omicron

Pending Treatments by Merck and Pfizer:

Still under investigation and may add some benefit in treatment

- Paxlovid by Pfizer - Early data is very good and better than Molnupiravir
 - Recent FDA approval but not yet presently available at pharmacies
 - Nirmatrelvir (protease inhibitor) with Ritonovir (an AIDS protease inhibitor)
- Molnupiravir by Merck

Other Therapies:

- Fluvoxamine by Luvox
 - 100 mg twice a day for 10 days (an anti-depressant that may have antiviral effects)

[Effect Of Early Treatment With Fluvoxamine On Risk Of Emergency Care And Hospitalisation Among Patients With COVID-19: The TOGETHER Randomised, Platform Clinical Trial](#)

Oxidative and Supportive Therapies for Treatment and Post COVID-19 Syndrome:

- IV NAD - 500 mg 1-2 x weekly
- IV GSH - 2 grams IV 3-5 x a week, +/- inhaled GSH or NAC
- IV Vitamin C - 10-25 grams 3-5 x a week
- IV Lysine - 2-3 grams 3-5 x a week
- Ozone - 1-10 pass 1-3 x a week, Major Autohemotherapy, Ozone Dialysis or Ozone Plasmapheresis
- Rectal ozone - 1 L a day if IV is not available

Peptide Therapy:

- Thymosin Alpha 1
 - 1.5-10 mg/day depending on severity for acute Covid
 - As symptoms resolve decrease dose over 3-5 days
 - Dose every 3-4 hours subcutaneously
 - Can do up to 5 mg TA1 IV per day supported with subcutaneous shots for severe disease
 - Consider therapy for 20-30 days
- Thymosin Beta 4
 - 1.5-10 mg/day depending on severity for acute Covid
 - If using high dose with TA1 use low dose TB4 (1.5 mg with TB4 and vice versa)
 - Dose every 3-4 hours subcutaneously
 - Take for first 10 days and wean as symptoms resolve
- Thymosin Beta 4 fragment 1-4
 - 2-5 mg/day
- BPC-157
 - 500 mcg to 1 mg 2 times a day
- LL-37
 - 100 mcg twice a day during acute period of 10 days, then decrease to 100 mcg once a day for 10 days
- Bioregulator Peptides orally and subcutaneously

Immune Modulating Therapies:

- Exosomes - 15-30 billion IV from [KimeraLabs](#) every 90 Days or more often
- Can also nebulize Exosomes
- Stem Cell Therapy
 - Contact [BioReset International](#)

Long Covid and Vaccine Injuries:

- Testing of monocytes to see spike protein - different for Alpha and Delta, will be a little different for Omicron
- Long Covid patients behave a little like Long Vaccine patients
- Doesn't mean vaccines are without side effects
- What does Maraviroc do?
 - Prevents monocytes from migrating all over the body

- They express the receptor that Maraviroc blocks CCR5
- It also reprograms macrophages, so they stop making IL6, VEGF, TNF alpha
- Having high levels of these inflammatory cytokines
- High persisting cytokines VEGF, and IL6 and another marker for activated platelets called soluble CD40 ligand (a marker for clotting)
- What does Statins do
 - Decreases vascular inflammation
- Why do these patients have Exercise intolerance?
 - Exercise causes mobilization of monocytes
- There may be a similar mechanism in chronic Lyme disease
 - the monocytes can carry the cell wall and the peptidoglycans of the bacteria
 - can even happen in the absence of an infection
- Maraviroc 300mg bid
- Pravastatin 10 mg
- Other modalities
 - Plasmapheresis
 - Ozone dialysis
- Consider Cytokine and Spike Protein testing (Spike testing is not yet available to the public)