Published Research and Articles on Vitamin C as a Consideration for Pneumonia, Lung Infections, and the Novel Coronavirus (SARS-CoV-2/COVID-19)

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(OMNS Mar 22, 2020) In 1936 Gander and Niederberger found that vitamin C lowered fever and reduced pain in pneumonia patients. Also in 1936, Hochwald independently reported similar results. In 1946 Slotkin further reported that "Vitamin C has been used routinely by the general surgeons in the Millard Fillmore Hospital, Buffalo, as a prophylactic against pneumonia, with complete disappearance of this complication."

It is one thing to be sick from a virus and another thing entirely to die from a viral-instigated disease. A 1994 randomised double-blind trial involving vitamin C/placebo supplementation was conducted on 57 elderly patients admitted to hospital with acute respiratory infections (bronchitis and bronchopneumonia). Using a clinical scoring system based on major symptoms of the respiratory condition, patients supplemented with the vitamin fared significantly better than those on placebo. This was particularly the case for those commencing the trial most severely ill, many of whom had very low plasma and white cell vitamin C concentrations on admission.

Vitamin C supports your immune system. Vitamin C helps to kill viruses and reduces the symptoms of infection. It's not a COVID-19 "cure," but nothing is. It might just save your life, though, and will definitely reduce the severity of the infection. If someone tells you it's not proven, consider two things:

- Nothing is proven to work against COVID-19, because it is a new virus
- Vitamin C has worked against every single virus including influenzas, pneumonia, and even poliomyelitis.

In the medical literature, there are more than 64,000 published articles and studies on Vitamin C available at The U.S. National Library of Medicine National Center for Biotechnology Information. Vitamin C is arguably one of the most researched substances in existence. Much of the research is very positive. Ignorance of the research, benefits and use of Vitamin C is not a valid excuse for it not to be used as a therapy, particularly when there are no other known medications available, and it is not likely to cause damage, and the published research is readily accessible for everybody.

Following is a brief selection of articles and research from the medical literature that are educational and helpful in considering the use of Vitamin C.

Article Title	Link (All Links Accessed and Active March 19,2020)
Vitamin C may affect lung infections	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2099400/
Vitamin C for preventing and treating pneumonia	https://www.ncbi.nlm.nih.gov/pubmed/23925826
Vitamin C and Infections	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5409678/
Vitamin C Can Shorten the Length of Stay in the ICU: A Meta-Analysis.	https://www.ncbi.nlm.nih.gov/pubmed/30934660
Combined vitamin C, hydrocortisone, and thiamine therapy for patients with severe pneumonia	https://www.ncbi.nlm.nih.gov/pubmed/30029205
Vitamin C and acute respiratory infections.	https://www.ncbi.nlm.nih.gov/pubmed/10488881
Vitamin C supplementation and respiratory infections: a systematic review.	https://www.ncbi.nlm.nih.gov/pubmed/15605943
Is Vitamin C Beneficial to Patients with CAP?	https://www.ncbi.nlm.nih.gov/pubmed/27363830
Vitamin C, the Miracle Cure: 60 Minutes Living Proof	https://youtu.be/xxWCNn1rIRo
Vitamin C, respiratory infections and the immune system	https://www.cell.com/trends/immunology/comments/S1471-4906(03)00286-2
Vitamin C and Community- acquired Pneumonia	https://www.atsjournals.org/doi/full/10.1164/ajrccm.184.5.621a
Vitamin C and pneumonia and other severe infections	https://www.mv.helsinki.fi/home/hemila/VitC_pneumonia.htm
Vitamin C and SARS coronavirus	https://academic.oup.com/jac/article/52/6/1049/731701
Could Vitamin C be the Cure for Deadly Infections?	https://www.smithsonianmag.com/science-nature/could-deadly-infections-be-cured-vitamin-c-180963843/
High-dose Intravenous Vitamin C as a Successful Treatment of Viral Infections	https://riordanclinic.org/2014/02/high-dose-intravenous-vitamin-c-as-a-successful-treatment-of-viral-infections/
Mitochondria and the Coronavirus - The Vitamin C Connection	https://www.evolutamente.it/mitochondria-the-coronavirus-the-vitamin-c-connection-part-3/
Chinese Medical Team Reports Successful Treatment of	https://www.dr-rath-foundation.org/2020/03/chinese-medical-team-report-successful-treatment-of-coronavirus-patients-with-high-dose-vitamin-c/

Coronavirus Patients with High-Dose Vitamin C	
Intravenous vitamin C as adjunctive therapy for enterovirus/rhinovirus induced acute respiratory distress syndrome	https://www.ncbi.nlm.nih.gov/pubmed/28224112
Gander J, Niederberger W (1936) Vitamin C in der Pneumonia Behandlung [Vitamin C in the treatment of pneumonia]. Münch Med Wschr 83:2074-7	https://www.mv.helsinki.fi/home/hemila/T1.pdf or https://pdfs.semanticscholar.org/7b37/490dfcdc7a98ba7e3bd744a15886873701db.pdf
Can Vitamin C Prevent and Treat Coronavirus?	https://www.medicinenet.com/script/main/art.asp?articlekey=228745
How to Use Vitamin C During Illness	http://www.doctoryourself.com/cathcart C summary.html
Shanghai Government Officially Recommends Vitamin C for COVID-19	http://orthomolecular.org/resources/omns/v16n16.shtml
Vitamin C Infusion for the Treatment of Severe 2019- nCoV Infected Pneumonia	https://clinicaltrials.gov/ct2/show/NCT04264533
Vitamin C and COVID-19 Coronavirus	http://orthomolecular.org/resources/omns/v16n14.shtml
Three Intravenous Vitamin C Research Studies Approved for Treating COVID-19	http://orthomolecular.org/resources/omns/v16n12.shtml
Early Large Dose Intravenous Vitamin C is the Treatment of Choice for 2019-nCov Pneumonia	http://orthomolecular.org/resources/omns/v16n11.shtml
Vitamin C and its Application to the Treatment of nCoV Coronavirus	http://orthomolecular.org/resources/omns/v16n09.shtml
Hospital-based Intravenous Vitamin C Treatment for Coronavirus and Related Illnesses	http://orthomolecular.org/resources/omns/v16n07.shtml
Vitamin C Protects Against Coronavirus	http://orthomolecular.org/resources/omns/v16n04.shtml

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