

# Dr. Brownstein's Blog on Coronavirus Part VI

## **Coronavirus Part VI: Why COVID-19 Is More Deadly to the Chinese**

I have written five previous blog posts about coronavirus. In those posts I told you that I thought the final mortality rate in the US for COVID-19 would be comparable to the flu mortality rate. Right now, the COVID-19 mortality rate is very high—around 2%. The flu mortality rate is estimated to be approximately 0.01% per year. My reasoning for lowering the mortality rate for COVID-19 was that not enough sick people have been tested. The tests in the US have been rationed to very sick and dying individuals.

In China, at the start of the crises, I would imagine the same phenomenon was going on—only the very sick were tested. Therefore, those that had COVID-19 and convalesced at home were not included in the data. That would skew the results to make the mortality numbers look much worse than the actually were.

The same situation could be occurring in other countries. Of course, in the US, the CDC botched the test kits and we simply do not know how widespread or deadly this disease is. More information about that can be found in my fifth coronavirus blog post which you may read here: ['Corona Virus Part V: The Epic Failure at The Centers For Disease Control & Prevention'](#).

One question I was bothered with was why **so many younger male Chinese were dying from COVID-19**. It seems that in other countries, COVID-19 was primarily killing the old and the sick. Which is just what you would expect from a regular influenza season.

I was speaking to a colleague today, Tetyana Obukhanych, PhD. She is an immunologist who I have been following for years. She forwarded me two articles that could explain why the Chinese (and young Chinese males) suffered such a high rate of mortality from COVID-19.

A February, 2020 article about coronavirus reported that the virus is able to invade the body by binding to angiotensin-converting enzyme II (ACE 2). ACE 2 is expressed in mucosal lining of the oral cavity. So, when exposed to coronavirus, COVID-19 gains entrance into the body by binding to the ACE 2 receptors in the oral cavity.

Guess where other ACE 2 receptors have been found? *High ACE 2 expression has also been found in lung cells.* (2) Pneumonia is one the most serious problems associated with COVID-19. ACE 2 has also been identified in other areas of the body including the esophagus, heart, kidney and bladder. All these organs are potential risks of infection for COVID-19.

Here's where things get more interesting. An older 2015 study (3) looked at *smoke inhalation and the development of acute respiratory distress syndrome*. The smoke exposure given to rats resulted in an increased expression of ACE 2 in the lungs when compared with controls not exposed to smoke.

Which population of people would be more prone to having ACE 2 receptors elevated in the lungs? *Cigarette smokers would.* In China, smoking is at a markedly higher rate than it is here. In fact, there are estimates that over 350 million Chinese are cigarette smokers. (3) This accounts for over a third of the world's smokers. When you factor in the increased levels of pollution which may do the same thing, this would result in a higher death rate from a COVID-19 infection in China as compared to the US.

*In China, 60% of males smoke while only 4% of females do.* COVID-19 has been reported to be more deadly in males from the information coming out of China. In America, less than 20% currently smoke cigarettes. That includes about 16% of men and 12% of women. Currently, 34 million Americans smoke cigarettes. These numbers have been declining for decades.

**This should give reassurance to non-smokers. For those who smoke, here is another reason to stop.** If you are a smoker, I advise you to take vitamin C (3-10,000 mg/day or to bowel tolerance), vitamin A 10,000 IU/day (unless you are pregnant), and vitamin D (6-10,000 IU/day). If you become ill with a viral infection, I would suggest following my viral protocol from the previous posts: For four days, take 50,000 U of vitamin D3 and 100,000 U of vitamin A per day). After the four days, resume the previous dosing. It is best to work with a holistic doctor who can monitor your levels as both vitamin A and D can become toxic.

To All Our Health,  
~DrB

David Brownstein, MD is a conventionally trained Board-Certified Family Physician with the additional overlay of holistic principles.

While Dr. Brownstein does not claim to have a cure for any illness, he does believe that we can enhance the individual's immune system by supporting the 'host' & the terrain of the host. The human body is well designed and the immune system, when given the proper support, can optimally function.

Disclaimer: The information in this blog should not be used as medical advice. Any therapies that are discussed should be supervised under the guidance of your physician or licensed healthcare professional.

(1) Int. J. of Oral Science. Published online Feb. 24, 2020

(2) Front. Med. <http://journal.hep.com.cn/fmd/EN/10.1007/s11684-020-0754-0> (2020) and <https://www.biorxiv.org/content/10.1101/2020.01.26.919985v1> (2020)

(3) [old.post-gazette.com/pg/06123/686910-294.stm](http://old.post-gazette.com/pg/06123/686910-294.stm)