

## Coronavirus Tricks the Body into Feeling Okay.

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A recent NYT article<sup>3</sup> suggests Covid-19 Virus tricks the body into feeling okay when it is really dying from severe lack of oxygen, a condition that can be called *silent hypoxia*. This occurs because the lungs initially expel carbon dioxide (CO<sub>2</sub>), a product of normal metabolism, better than they transfer oxygen to the blood. It is only the buildup of CO<sub>2</sub> that makes us feel the need to breath and drives normal respiration. A graphic example is if one breathes helium to get that special Mickey Mouse sounding voice that everyone laughs at. Helium is inert and is not metabolized, so CO<sub>2</sub> does not build up. There is no feeling of suffocation and unconsciousness or even death can result unless normal air is breathed.

Many people infected with the virus are asymptomatic. They feel normal, or perhaps a little off, but not enough to rush to the hospital. Even patients in the hospital may be suffering from severe Covid pneumonia can feel almost normal when their oxygen levels are extremely low. This is an unusual – perhaps unique – combination of symptoms brought on by this Coronavirus.

Two medical devices, the pulse oximeter and a capnometer, currently exist that can non-invasively measure blood oxygen and exhaled CO<sub>2</sub>. These measurements together could possibly be used to screen asymptomatic people in a matter of minutes. And, without requiring chemicals that seem to be made only in China, and which we cannot get nearly enough of.

It's likely fewer patients would die if the severity of their condition could be tested earlier. The death rate for patients that must be intubated and put on a respirator is alarmingly high. Reports from New York city with the highest number of Covid-19 infections, suggest many vulnerable people are waiting too long before calling the EMTs and die before they arrive or soon after. This may be caused by silent hypoxia or other failures worsened by the severe lack of oxygen that is not being felt.

Research must be performed to arrive at a proper protocol for using combined oximetry and capnometry for assessing either asymptomatic infections or the severity of hospitalized patients. These tests would likely be used in conjunction with others. However, they are readily available, non-invasive and provide immediate results. This is the kind of tool we really need in this national and worldwide crisis.

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<sup>3</sup> Levitan, Richard, MD, The Infection That's Silently Killing Coronavirus Patients, New York times, Apr 20, 2020, <https://www.nytimes.com/2020/04/20/opinion/coronavirus-testing-pneumonia.html>