A Common Sense Approach to Respiratory Viruses — Part 1

A practical, two-part guide on viruses and immunity—including how to support your own viral defenses.

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For part 2 of *A Common Sense Approach to Respiratory Viruses*, click here.

What you should know about viruses

Viruses, like recent bacteria, are considered responsible for human diseases. Infectious diseases are indeed the foundation of modern medicine as we know it. But we learned in the last decades that 99% of bacteria around us benefit our health and environment.

Did you know that the same applies to viruses? In fact, if all viruses suddenly disappeared, the world would be a wonderful place for about a day and a half, and then we'd all die.

The vast majority of viruses are not pathogenic to humans, and many play integral roles in propping up ecosystems. Others maintain the health of individual organisms – everything from fungi and plants to insects and humans. Researchers still do not know how many viruses even exist. Thousands have been formally classified, but millions may be out there. Infection with certain benign viruses can even help ward off some pathogens among humans. GB virus C, a common blood-born human virus, is linked to delayed progression to Aids in HIV-positive people (Schwarze-Zander, 2012). Scientists also found that GB virus C makes people infected with Ebola less likely to die. Likewise, herpes makes mice less susceptible to certain bacterial infections, including bubonic plague and listeria (a common type of food poisoning) (Lauck, 2015). Viral elements also account for an estimated 8% of the human genome, and mammalian genomes, in general, are peppered with around 100,000 remnants of genes originating from viruses.

What the medical profession is being told about viruses

HIV, Hepatitis, Flu, Herpes, etc., are persisting problems for our health care systems. Viruses are bad news for most doctors as we still don't have efficiently functioning antiviral medication, costs are usually high, and there are many side effects. Generally, the current system focuses on vaccines to tackle viruses. But is this really efficient, either?

If we look at the flu vaccines, we can see that the rate of flu deaths has continuously increased since the rollout of the flu shot. A study of over 170 Million participants in 2020 (Anderson, 2020) showed that the vaccine had no statistical effect on hospitalization or death in people over 65, the most vaccinated group in society.

The terrain or the pathogen (Virus)

Louis Pasteur's 'germ theory' (that disease has a microbial origin) changed the prevailing view of disease causation in the 19th century. They were an important discovery for the future of medicine. However, his rival, Claude Bernard, believed that the 'terrain' was more important than the 'pathogen,' i.e., that a doctor should focus on strengthening the body to fight off disease instead of killing the pathogen.

The more we know about our immune system, the more we understand how important it is to support our natural defenses wisely to deal with viruses.

What we should know about the approach to dealing with a viral infection

The Pasteur Institute (Pasteur Insitute, 2000) observed that "98% of the immune responses triggered at the early stages of infection are non-specific. These non-specific responses had been observed following different infections by viruses, bacteria, parasites, and fungi. Thus the innate or God-created natural immune system affords 98% of the body's critical early response to an infectious agent.

In comparison, the adaptive or memory-based response represents only 2% of early response. A vaccine aims only to produce antibodies, which theoretically become active once the virus has entered the organism and circulates in the blood. We thus can see that no current vaccine can stop the infection and only accounts for 2% of our initial immune response. So it makes much more sense to strengthen our natural defenses in the mucous lining of our airways and guts to prevent a virus from entering. The additional problem with the vaccination approach, especially respiratory diseases (Influenza, Covid, etc.), is that when a new variant emerges with many mutations, the original antigens may not work. New vaccines must be continuously developed to keep up with the viral mutations.

How to distinguish between viruses

In adult patients, COVID-19 (Omicron variant), influenza, and RSV present similar symptoms and can be difficult to distinguish. This is a summary to differentiate between the flu and RSV (FLCCC, 2023):

Influenza:

- Influenza characteristically begins with the abrupt onset of fever, nonproductive cough, and myalgia. Other symptoms include malaise, sore throat, nausea, nasal congestion, and headache. Gastrointestinal symptoms like vomiting and diarrhea are usually not part of influenza in adults.
- Older adults (≥65 years) and immunosuppressed patients are more likely to have subtle signs and symptoms; they may present without fever and with milder systemic symptoms than other patients; however, older adults have a higher frequency of altered mental status.
- To test for influenza, conventional reverse transcription polymerase chain reaction (RT-PCR) assays are preferred, if available; these are the most sensitive and specific tests for diagnosing influenza virus infection. These assays have low to moderate sensitivity but high specificity. An alternative diagnostic test for influenza is an antigen detection assay.

Respiratory Syncytial Virus (RSV):

- RSV is highly infectious, and virtually all individuals have been infected with RSV by the age of two. Previous infection with RSV does not appear to protect against reinfection. Healthy adults are infected with RSV repeatedly throughout their lives and typically have symptoms restricted to the upper respiratory tract.
- Signs include cough, cold-like symptoms, runny nose, and conjunctivitis. Compared with other respiratory viruses, RSV is more likely to cause sinus and ear involvement with less prominent fever. RSV is an important and often unrecognized cause of lower respiratory tract infection in older adults and immunocompromised adults.
- Diagnosis of RSV is based on a PCR test as well as rapid antigen tests. In adults, the antigen tests have a high specificity; however, they are less sensitive than PCR-based assays.

What should we know about our immune system?

Immunity is the ability of an organism to deal with a particular infection or toxin. Humans have two levels of immunity: a natural and an acquired one. We are born with natural (innate) immunity, which protects us from all types of pathogens instead of specific ones. Acquired (adaptive) immunity is achieved by the learned response after getting infected by specific pathogens, including viruses and germs. There are 5 layers of an immune system a pathogen can encounter.

The first barrier of our immunity includes our skin, nose, eyes, and gut. The second one is our epithelial cells on the surface of our nose, throat, trachea, bronchi, and lungs; they make up the inner surfaces of our breathing organs and our gut. When viruses invade epithelial cells, they automatically start their antiviral mechanism, mainly by producing interferons. These critical antiviral substances can prevent the replication of viruses. In people with strong immunity, the mechanism of interferon secretion alone is sufficient to eliminate the viruses.

The third barrier comprises innate immune cells, such as granulocytes, macrophages, dendritic cells, and natural killer cells. Natural killer cells are at the frontline of the natural immune system, mainly responsible for killing virus-infected cells. The next barrier consists of T cells lymphocytes, which play a vital role in the adaptive immune response. The last immune barrier is composed of B cells, another type of lymphocyte. B cells create antibodies, which bind to pathogens or toxins to neutralize them. In addition, B cells can present antigens and secrete cytokines. These antibodies are being monitored to prove the efficiency of, e.g., a vaccine. Additionally to these five levels, an essential part of our immune system is in our gut microbiome.

What can we do for the 5 levels of immunity?

Our current healthcare systems do not tell us that only 2% of our initial immune response toward a virus can result from a vaccine and that we can boost our natural defenses instead. Over 160 studies for Covid alone prove that natural immunity is far superior to a vaccine approach (Alexander, 2023). If we are purely relying on the vaccine to fight against influenza or Covid-19 for example, the vaccines need to be continuously updated to keep up with the different strains' constant mutations. But it takes on average at least 8 months to produce a new vaccine, such as for Covid. This is

far slower than the speed at which the virus can mutate. A significant new mutation has taken center stage every four or five months, as we have witnessed at least seven significant strains during the past 32 months of the pandemic. The same applies to influenza and other respiratory viruses such as RSV.

Luckily, we have the first four front layers of immunity, which can help us defend against any virus, independent of the B cells or neutralizing antibodies. When we build up a strong immunity, it's possible for us to peacefully coexist with influenza and COVID-19 viruses without worrying about mutations or expired vaccines. The last three years have taught us, with thousands of peer-reviewed studies, how this can be achieved.

In Part 2, Christof Plothe, D.O. explains how we can support our body's viral defenses using simple lifestyle changes such as diet, sleep and exercise.

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