Should You Take A Covid-19 Vaccine?

By Michael Rossoff, L.Ac. © Michael Rossoff, 2021

Over the coming weeks and months, we will be urged to take one of the approved vaccines for Covid-19.

People ask, How safe are they? How long-lasting is the immunity? What other risks are there, such as taking a genetically altered means for delivering the vaccine?

I am not "for" or "against" vaccines. There are many important factors to consider, including your age (immune system declines with aging), your past medical history (higher risk for people with diabetes, heart disease, plus lung, kidney, and liver disease) or any chronic inflammatory conditions, such as autoimmune diseases. If you are a stern anti-vaxxer, then there is no reason to read further.

While I completely support eating a very healthy diet, it is a mistake to depend on this solely (more on this later). And if you are a diehard macrobiotic or vegan who believes that diet alone ensures your immunity, then there is no reason to read any further.

Before the question of taking the vaccine, we need to consider the following other factors as important ways to reduce your risk of getting the coronavirus:

- Are you serious consistent with wearing a mask when out of your home?
- Do you wash your hands when you return home?
- Do you follow distancing guidelines when in a store, public situation or outdoors? And, do you avoid social situations where distancing is not happening?

The only way the coronavirus can enter the body is through the nose or mouth in order to reach the lungs. Please see my website for an article and webinar on this topic.

Where is the Immune System?

Immunity is the body's ability to respond quickly to "foreign" elements such as bacteria or virus. This ability is learned (that is why babies and young children are more susceptible). There are important organs and functions that maintain our original immune system, especially the spleen (lymph), liver (blood), kidney (acid/alkaline balance), and intestines.

From a Western medical view, we have two types of immune cells; the innate system and the adaptive. The innate cells comprise the bulk of all of the white blood cells. These cells are ready to respond immediately to foreign pathogens. They can then

trigger cytokine molecules to draw more WBCs to the area. The cytokines cause an inflammation to focus and empower the response. If all of this occurs too rapidly, then it can lead to a cytokine storm, which can worsen the body's symptoms.

The second immune response is called adaptive, which includes T-cells and B-cells. These cells are slower to respond to an immediate threat but are capable of learning to identify the specific virus and then make antibodies to stop the virus. This process takes days, but the virus may already have overwhelmed the body's defenses.

What is a Virus?

Viruses, unlike bacteria, contain only genetic material, no cellular components. Some say that a virus is therefore not a living organism. It contains the primal essence of life – either DNA or RNA. In my webinar, <u>Finding Calm in a Sea of Anxiety, Fear, & Anger,</u> I share more about the yin/yang nature of viruses, why they are so persistent, and natural anti-viral approaches.

There are two kinds of viruses: one that goes only from person-to-person and one that begins from animals and "jumps" to humans. A vaccine for the first kind can completely eradicate it if everyone is vaccinated. This is the case with smallpox and polio. But most viruses begin with animals and no vaccine will fully stop them since they will likely mutate, such as the flu and the coronavirus.

The Goal of Vaccines

The goal of vaccines is to teach the T-cells and B-cells to recognize the coronavirus by showing it a key part – the spike protein on the outside that identifies its uniqueness. Then if a person becomes exposed to the virus their immune system will act much more quickly by producing antibodies. This quick action can prevent an escalation of the infection.

Regardless of what type of vaccine, the key point is that none will prevent the initial symptoms, but probably will fortify the body to avoid the most serious and dangerous complications.

Covid-19 is caused by SARS-CoV-2, which stands for Severe Acute Respiratory Syndrome-CoronaVirus-2. It enters the body mainly through the sinuses and upper respiratory system of the lungs. The virus's outer spike protein attaches to receptors in the lung cell called ACE2 (angiotensin-converting enzyme 2) and then pries its way inside the cells. There are ACE2s elsewhere in the body, specifically in the lining of the heart, kidney, and intestines, plus the lining of blood vessels. These are the principal areas where serious complications occur if the virus goes unchecked. Once inside the cells, the virus injects its RNA into the human cell's nucleus and takes command of the cells. Using the cell, it replicates itself and new virus cells are released, sometimes destroying the

original cell in the process.

Early symptoms include shortness of breath, cough, mild fever and fatigue, and loss of appetite. Some people lose their sense of smell or taste or get "Covid toes" (swollen, purple bumps on the toes). None of these symptoms are life-threatening and often diminish or disappear within a few weeks, not unlike a common cold. Others may have prolonged side effects that are unique to Covid-19: such as mental or emotional or neurological in nature.

Greater complications are nausea, diarrhea, irregular heartbeats, delirium, blackouts, brain inflammation, and strokes. Some symptoms can linger for a long time. The most life-threatening are lung damage, kidney damage, and liver failure.

The goal of a vaccine is to prevent the most serious symptoms or death.

The Vaccines

There are over 20 different vaccines in the pipeline, each working from a different basis. There are controversies about how they work (genetic vs. killed virus or other) to create an immune response, as shown by increased antibody output.

Further controversies focus on the testing through different trials of each vaccine to "prove" effectiveness. Key problems are the selection of people and how long each trial goes. For example, while the Pfizer vaccine claims 94% effectiveness, this is because they excluded having too many older people or those with underlying conditions. If these were included, then older adults would have about half as strong a response. (Nature, Vol. 586, 15 Oct. 2020) As important as this critique is, there is also the valid concern that no one knows the long-term impact of these vaccines over years since the trials were shortened to get them "into the arms of people" quickly.

The Four Types of Vaccines

Another major concern is the mechanisms of the vaccines. There are four different types of vaccines, distinguished by contrasting approaches for getting the coronavirus's spike protein into a specific, unique form that will then be injected as a vaccine. We have mostly heard of only one type in America made by two companies.

Genetic Vaccines

The first two approved in America are made by Pfizer and Moderna. There are 15 other companies developing vaccines based on this same mode. These companies are in Germany, Japan, India, England, South Korea, China, Thailand, Canada, France, and the USA.

Unlike a polio vaccine which uses the killed or nearly killed virus to stimulate the body to produce antibodies, this type of vaccine uses a messenger RNA (mRNA) to deliver a part of the virus's own gene. This gene instructs our cells to build the coronavirus spike proteins and release them into the blood to provoke a response by the immune system.

Many people are afraid that using a mRNA will have dangerous and even lifetime unknown consequences. The medical response is that the mRNAs are not involving or changing the DNA of our cells, so there is no danger. Because the trials were so short, the longer-term repercussions remain unknown. In this sense everyone taking these vaccines is part of a mass experiment.

Viral Vector Vaccine

Another type of vaccine, like the one by Johnson & Johnson, is called a Viral Vector vaccine. It contains viruses, called Adenovirus 26 [Ad26] (or another number), which are 'harmless' and engineered to carry coronavirus genes. When injected it enters cells and causes them to make the spike protein which then stimulates an immune response. Johnson & Johnson used this method to successfully develop a vaccine for Ebola. Another company using this approach is Oxford-AstraZeneca in England as well as Russia's Sputnik. Plus, there are 12 other companies worldwide developing vaccines based on this approach.

Protein-Based Vaccines

The third type of vaccine is called a Protein-Based vaccine. These contain the coronavirus spike protein, but no genetic material. The best known is made by Novavax in America and has an 89% effective rate. They take the spike proteins and attach them onto nanoparticles, which cannot replicate or cause Covid-19. This is injected along with a compound extracted from the Chilean soapbark tree, which helps stimulate immune cells. There are 22 other companies worldwide developing a similar approach.

Inactive (Attenuated) Vaccine

The fourth type of vaccine is called Inactive or Attenuated vaccine. This type uses weakened coronaviruses or coronaviruses that have been killed by chemicals. The best known is from a Chinese company called Sinopharm. It is 79% effective and is already used in China and elsewhere. Another from China called CoronaVac from Sinovac has already been given to people in Brazil. There are 10 other companies developing a similar approach for a vaccine.

At the end of February, Brazil will do the first mass study by vaccinating a whole town of 45,000 people to see if someone who is vaccinated still transmits the virus. They will also analyze the percentage of people who need to be vaccinated to reach herd immunity. They expect results later this coming summer.

Now, as this is written in late February 2021, the vaccines have already been given to millions of people worldwide. And the World Health Organization has just approved the AstraZeneca vaccine for use in much of the Third World.

With such an unstoppable rush to vaccinate people, some questions remain.

The dean of Baylor College of Medicine's National School of Tropical Medicine, Peter Hotez, said, "Ideally, you want an antiviral vaccine to do two things... first, reduce the likelihood you will get severely ill and go to the hospital, and two prevent infection and therefore interrupt disease transmission."

The fact is that the trials only proved that there is a reduction of symptoms by those who took the vaccine. There have been no studies of severe Covid-19 occurrence or deaths from people who took the vaccine. Likewise, there are no studies to see if vaccinated people would no longer be able to transmit the disease (British Journal of Medicine, Pub. 371, 21 Oct. 2020). This is a key reason for still wearing a mask and social distancing even though you have been vaccinated.

Another area of concern is the potential side effects from the vaccine. Most people will get mild reactions as their body reacts to the intent of creating an immune response. Symptoms include aches, pains, chills, fever, fatigue, and most recently Bell's Palsy (partial facial paralysis) in 4 out of 30,000 people who have taken Pfizer or Moderna's vaccine. (*NY Times*, 2-13-21).

Further, Western science has the term "disease enhancement," for cases where the vaccine worsens the disease that it is supposed to protect against. It is not known whether any of the Covid-19 vaccines are actually giving the disease instead of protecting from it.

The "gold standard" of testing whether someone has Covid-19 is being challenged. The test, called PCR (reverse-transcription polymerase chain reaction), uses a specific mix of chemicals (reagents) and a special machine (thermal cycler) so that the PCR process can duplicate certain strains of genetic material hundreds of millions of times. A nasal swab is used in the PCR test, which looks for a snippet of RNA unique to the coronavirus. It is called the "gold standard" by CDC guidelines and the FDA, against which all other tests are judged. Because this test has taken days or weeks to get results, it becomes less useful in stopping transmission.

Other Non-Vaccine Treatments

Other non-vaccine treatments have been used for early Covid symptoms, with some more promising results than others. The following show positive benefits.

- **Remdesivir** an antiviral, which is most effective early in the Covid sickness. It alters the coronavirus from making copies of itself. It also appears effective against the new strains of coronavirus.
- **Monoclonal antibodies** are laboratory-made antibodies created from recovered patients, which can help the body's immune system fight off the virus better.
- **Steroids** Dexamethasone is best used when the oxygen level is low while the patient is still early in Covid symptoms.
- Ivermectin is an anti-parasite medicine that has been shown effective as a Covid-19 preventative and an early treatment. In January 2021 the National Institutes of Health upgraded their recommendation to the same level as monoclonal antibodies. It has already been used in Brazil.
- **Interferon alfa-2b** is antiviral and anti-cancer. It has the potential to interfere in the virus's ability to replicate.
- **Baricitinib**, a rheumatoid arthritis drug, which might reduce inflammation and speed recovery from Covid-19.
- **Fluvoxamine**, an antidepressant that has antiviral and anti-inflammatory qualities.
- **Plitidepsin**, from sea squirts, is used to treat multiple myeloma. It targets human proteins that the virus needs to reproduce.

There are many over-the-counter supplements and Chinese herbal formulas that can help strengthen our immune system and I recommend them for most people. There is a full list in my earlier article, <u>Preparing for the Coronavirus</u>, which is free on my website, HERE.

Even so, I want to highlight two that I consider especially important.

Vitamin D3, the sunshine vitamin. Over half the American population is deficient in D3. It supports the immune system and has been used with Covid patients. Lack of vitamin D3 is linked to hypertension and diabetes and an increased risk of getting Covid-19. Vitamin D is called a prohormone that after processing by the liver and kidneys is converted into a hormone that acts on cells in the immune system in a positive way. It also helps avoid bone disorders. The main source for vitamin D is sunshine, but only certain wavelengths. One doctor says, "your shadow has to be shorter than your height to make vitamin D." Oily fish such as herring, salmon, and sardines contain vitamin D. Supplementing is safe and easy, taking 1-3,000 IU (25-75 mcg) per day with food.

Zinc is a well-known antiviral that is often used in lozenges for cold symptoms. Zinc regulates metabolism and the immune system, especially T-cell lymphocytes. While found in whole grains, beans, and nuts, zinc absorption can be diminished by phytates in these foods. Calcium supplements can inhibit its absorption as can conditions like diabetes, ulcerative colitis, and kidney disease, plus various prescription drugs. Red meat is a source, but many people don't eat meat. A supplement of 20-50 mg is safe and especially beneficial for older people or anyone with a compromised immune system.

Oriental Medicine & Macrobiotics

The most important difference between Western and Oriental medicines is that one has a "micro" vs. "macro" view of disease and illness. In Oriental medicine the human body is a well-balanced, self-regulating system. It maintains health by keeping harmony with the external world. As our environment has radically changed over the past 100 years, this has reached a turning point, where the human body cannot adapt easily. The same is true for animals, too.

The world has become more and more polluted —imbalanced by deforestation, the atmosphere filled with carbon dioxide, oceans polluted by toxic wastes. This has culminated in climate change, where the earth is rapidly heating up and the polar ice caps are melting. The result is disruption in normal cycles throughout the living world — from us, humans, to animals, plants, and even viruses.

Our internal energy system is strained to adapt, and ultimately weakened by internal stagnations, congestions, and dysfunctions.

In Oriental medicine when an external pathogen (virus or bacteria) gets a foothold in the body, then the yang energies respond to repel the invasion by creating heat. The signs of this are fever, chills, aches, and fatigue. Success is a quick resolution back to normal. This yang energy is called Wei qi, defensive energy, which is made through the process of digestion. Therefore, the foods we eat daily can benefit or weaken the power of Wei qi along with the quality of our blood.

Modern people have gradually slipped away from commonsense eating that was part of their family history. We were easily seduced by our busy schedules, commercial advertising, convenient and "cheap," filling foods that ultimately undermined our basic digestion. The proof is that over-the-counter digestive remedies account for \$115 million per year to quiet acid reflux, ulcers, gas, constipation, etc., with no relief in sight.

But these problems, while rarely dangerous, reflect a weakening of the Wei qi and blood, which are the core of our immunity. Our immunity is also influenced by our constitution, age, prior illnesses, gender, and even ethnicity.

When our body is confronted by a virus, the two most important factors are our immediate condition (strength of Wei qi and blood) and the intensity of the virus. Covid-19 is a very strong virus, and even more are its recently identified variants (mutations). Regardless of where the coronavirus came from, it is more aggressive and unknown to our immune system. How prepared are we for this encounter?

On the one hand, Western medicine offers vaccines to strengthen our immune response, by "teaching" T-cells and B-cells to recognize this coronavirus, which helps mobilize a quicker response and lessens any life-threatening results.

On the other hand, Oriental medicine points to the imperative of strengthening our blood and qi, particularly through the foods we eat along with the power to digest and assimilate them. It also uses herbal formulas that will support an immune reaction to a viral threat. These formulas are essentially concentrated foods. See my article <u>Preparing</u> for the Coronavirus for more details.

Digestion and the Microbiome

Digestion involves many organs and functions, but it mostly takes place in the small and large intestines, where trillions of bacteria and microbes exist to help us digest and assimilate our foods. This is called the microbiome. There is ongoing research about the relationship of our gut microbiome and immunity.

Gut Journal, published in January 2021, reports that people with Covid-19 had significantly altered gut bacteria that led to elevated concentrations of inflammatory cytokines and blood markers such as C- reactive protein, which indicates inflammation. Further, this gut imbalance continued after the patient was "healed."

Science magazine reports that the virus can replicate in the cells of the intestinal lining, called enterocytes. Currently in China they are studying whether an anal swab is more accurate for Covid-19 testing than a nasal swab.

Added to this is ongoing research that the microbiome has a regulatory effect on our brain function and mental health—from anxiety, depression, and stress. As one researcher says about our gut microbiome, "it is chemically altering nerve signals going into the brain, which alter brain chemistry and therefore behavior, mood and we believe, depression and anxiety." (Reported in *Wall Street Journal*, 12-22-20).

In January 2021, the *New York Times* published an article about how the gut microbiome is directly affected by diet. Based on research from King's College London, the article says.

"One critical factor was whether people ate foods that were highly processed or not. People who tended to eat minimally processed foods like vegetables, nuts, eggs and seafood were more likely to harbor beneficial gut bacteria. Consuming large amounts of

juices, sweetened beverages, white bread, refined grains and processed meats, on the other hand, was associated with microbes linked to poor metabolic health."

There are more conclusions to this study, so read the article at: www.nyti.ms/3oG8H2x.

Meanwhile, the pandemic has created problems of isolation and stress. These have led to excessive alcohol consumption (particularly by women), gambling and compulsive online shopping and eating junk foods. The alcohol and junk food eating are further compromising the gut health.

What We Can Do

What can we do with our eating that will strengthen the digestive system and create a healthy microbiome? A short list needs to include:

- Eat whole grains, especially millet if the digestion feels weak.
- Eat fresh cooked vegetables and lightly roasted seeds, and nuts daily.
- Eat beans and bean products like tofu, tempeh and hummus.
- Eat fish and eggs if you like.
- Eat miso and seaweeds in soups or with beans.
- Eat fermented foods like sauerkraut, pickles, natto, mild kimchi.
- Eat local foods, fresh, whenever possible.
- Eat fresh fruits, especially berries, apples, and pears.
- Use herbs in the cooking vs. excessive salt.
- Use sea salt and umeboshi plum (paste or vinegar) daily.
- Drink water and teas daily, including herbal (like rosehips, lemon balm, chamomile, etc.), and green or black teas (if you like). Avoid coffee as much as possible.

From Oriental medicine's viewpoint, the body contains five basic natures—Heat, Cold, Wind, Damp, and Dry. These work to support and control all functions. When they become out of balance, there will arise symptoms of one sort or another. Wind means internal movement, which could be tremors or twitches for example. Damp means internal congestion or stagnation, like cysts.

In Oriental medicine an infection, whether viral or bacterial, creates excessive Heat (which can become inflammation) and Wind (which spreads the infection).

Foods that generate Heat should be avoided with any infection, including sugar, alcohol, garlic, hot spices, red meats and poultry. Further, congesting foods like cheese, other dairy products, and flour products (like bread, crackers, and cookies) can trap the heat inside the body.

Here are some foods that dissipate Heat: green leafy vegetables such as bok choy, kale,

collards, cabbage, bitter greens like dandelion, endive, and asparagus, plus bamboo shoots, sprouts, watercress and other leafy greens.

Foods that calm Wind are bitter vegetables for harmonizing Liver and Gall Bladder. These include mustard greens and broccoli rabe.

For congestion and stagnation (Dampness) use leeks, chives, and scallions often. Garlic, when cooked and not excessive, can help. Plus using ginger in cooking is extremely helpful.

Other simple dietary reminders are:

- Sit when eating.
- Chew very well (taste and enjoy).
- Don't overeat (only to 80% fullness).
- Don't be over-hungry, which leads to overeating.
- Don't eat before sleep.
- Avoid ice-cold foods and drinks.
- To improve immunity through dietary practices, avoid sugary foods, all alcohol, soft drinks, and highly processed foods.

And other important reminders:

- Exercise is essential.
- Breathing affects lung health and circulation and digestion. Never hold your breath and allow the breath to go to the belly.
- Good sleep is essential.
- Prayer is simple and powerful.
- Enjoy the outdoors.
- Keep in touch with friends and family, even during these times.

Please see my article, <u>Preparing for the Coronavirus</u>, for more.

Conclusion

In summary, there is a lot we can do on a daily basis for our vitality and immunity. These actions take commitment and responsibility. Are you willing?

Even so, there are factors that work against becoming so secure that your eating and lifestyle will ensure that you will not get Covid-19. For example, stress, poor elimination, lack of exercise, poor sleep, and more.

We know 80% or more of those who get Covid-19 have mild symptoms that will clear up quickly. Of the other 20+%, there can be chronic physical or mental ongoing symptoms. And between 1-2% die from Covid-19.

I respect everyone's opinions and decisions. In truth, life choices are rarely 100% yes or 100% no. I encourage using your commonsense and quiet intuition.

If you have had a serious disease or chronic ongoing health concerns or are over 70 years old, then I recommend that you take one of the vaccines. Or if you sense that you are not likely to remain diligent with your eating and lifestyle, then take a vaccine. Personally, I expect to take either the Inactive or the Protein-based vaccine, whichever becomes available first.

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Please see Michael's two webinars on the coronavirus plus this article and another <u>HERE</u>.

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