CAYENNE's POTENTIAL VALUE In COVID-19 Regarding Two of Its Destructive Effects

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Cayenne Pepper

<u>Disclaimer:</u> This article is intended as an educational tool, and not as a prescription. Seek the advice of your health-care professional before trying any new substance or therapeutic technique.

<u>Note</u>: It is important to understand that, while cayenne is not noted for its anti-viral action, the purpose of this article is to highlight cayenne's potential value for inhibiting two of the major, yet paradoxical, mechanisms of coronavirus-induced tissue damage: *abnormal blood-clotting and internal hemorrhage*.

Two Important COVID-19 Research Findings

COVID-19 and Blood-Clots

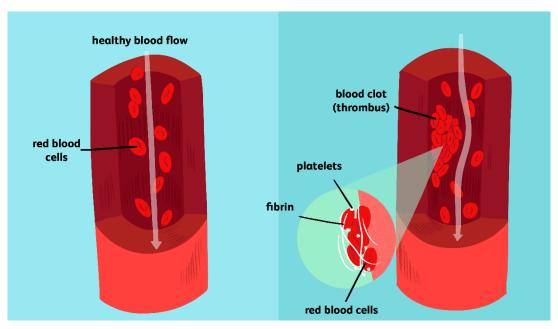
A research team at New York's Columbia University Irving Medical Center (publishing their findings in the medical journal *Nature Medicine*) found that the coronavirus attacks virtually all the body's major organ systems, damaging organs, initiating abnormal blood clots, disturbing heart rhythm and causing blood to appear the urine.

Autopsies of patients who died from COVID-19 infection found blood clots in most organs. The virus inflicts this damage via its affinity for a cell receptor called ACE2,

which serves as a molecular entry way into cells, especially those that line the blood vessels, kidneys, bile ducts, pancreas, and intestinal and respiratory tracts, all of which are covered with ACE2 receptors

Abnormal blood clotting appears to be one of the primary causes for much of this organ damage. This may help to explain why COVID-19 causes sudden strokes in young adults. Such abnormal blood clotting may be caused by a variety of mechanisms, including: damage to the endothelial cells that line the blood vessels. The endothelial cells that line both blood vessels and lymphatic vessels form the barrier between these vessels and tissues. Accordingly, they control the flow of substances and fluid into and out of adjacent tissues. Impaired endothelial cell function can have systemic consequences, including interference with blood clotting mechanisms.

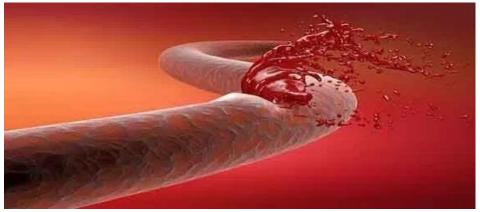
Additionally, the low blood-oxygen levels caused by viral pneumonia can make the blood more prone to forming abnormal clots. These abnormal clots can cause heart attacks and strokes and/or blockages in the kidneys, lungs, legs and other sites. Clots in the kidneys' blood vessels interfere with the kidney dialysis, required by some of the most seriously ill COVID-19 patients.



COVID-19 and Internal Bleeding

On the other hand, a review study (appearing in the journal *Physiological Reviews*) concluded that bleeding disorders are among the leading causes of death for COVID-19 patients. The researchers suggest that hyperactivity of the body's anticoagulant response may be to blame for these bleeding dysfunctions. In other words, an overactive anti-clotting system may be responsible for the hemorrhagic symptoms associated with COVID-19.

Overactivity of the body's anti-clotting efforts is referred to as *hyperfibrinolysis*. Fibrinolysis involves enzymatic activities that limit and localize clot formation. In fibrinolysis, the clotting protein *fibrin* is broken down, or degraded. The researchers noted that those with severe COVID-19 also commonly present with fibrin degradation products and reduced platelets, which can be an indication of hyperfibrinolysis. They conclude that hemorrhage in multiple organs, together with a positive correlation between fibrinolysis and mortality, strongly suggests that hyperfibrinolysis is a major factor in mortality among COVID-19 sufferers who had pre-existing health conditions.



Internal Bleeding

Those with diabetes or *pre-existing heart*, *lung*, *and kidney issues* often present with high levels of *plasminogen* and *plasmin*. Plasminogen is an inactive substance in the blood that is converted into *plasmin: an active enzyme that breaks down blood clots*. Thus, excessive blood levels of plasminogen and plasmin can initiate internal hemorrhaging.

Additionally, more than 97% of people admitted to hospitals for COVID-19 have elevated levels of a protein called *D-dimer, which forms in the blood when a blood clot dissolves*. The researchers found elevated D-dimer levels in patients with severe COVID-19 disease. The more severe the case, the greater the increase in D-dimer levels, particularly among those who develop acute respiratory distress syndrome (ARDS).

After reading the findings of the first research study regarding the abnormal clotting associated with coronavirus infection, one might think that natural blood thinners such as vitamin E or *nattokinase* (an enzyme extracted from a fermented soybean food called *natto*) would be indicated. Nattokinase exerts a blood-thinning action and helps to break up blood clots.

However, after reading the second research study regarding the internal hemorrhage associated with coronavirus infection, one would see that using a substance noted for its blood-thinning action could prove risky as it might exacerbate the proneness toward hemorrhage.

Among the nutrients and herbs that I have worked with over four decades, only one appears to have the potential to protect against <u>both</u> abnormal clotting and internal hemorrhage: <u>cayenne</u>. <u>To clarify</u>: While not clinical fact at this writing, it may suggest that cayenne could have therapeutic potential regarding these two destructive effects of coronavirus infection.

Cayenne and Abnormal Blood-Clotting and Hemorrhage

Cayenne: a member of the Solanaceae (or Nightshade) family has been used for its nutritional and medicinal properties for millenniums by the native peoples of the tropics to which it is indigenous. Despite its hot quality, cayenne exerts a powerful anti-inflammatory effect.

Capsaicin, the most important active constituent of cayenne, is a bitter substance which was first isolated and identified in the early 19th century. Capsaicin exerts the following effects: *circulation-stimulating; antimicrobial; detoxification; gastroprotective* (protects the stomach); *thrombolytic* (breaks down blood clots).

Jethro Kloss when discussing cayenne in his masterwork *Back to Eden* relates: "There is perhaps no other article which produces so powerful an impression on the animal frame that is so devoid of all injurious properties. It is almost incapable of abuse, for however great the excitement caused by it, this stimulant prevents such excitement subsiding so suddenly as to induce any derangement of the equilibrium of the circulation. It produces the most powerful impression on the surface, yet never draws a blister; on the stomach yet never weakens its tone. It is so diffusive in character that it never produces any local lesion, or induces permanent inflammation."

It's important to note that cayenne--*in extremely large doses*--may be neurotoxic and cause life-threatening hypothermia, chronic gastritis, kidney damage, liver damage, dermatitis and blistering. The older herbal practitioners apparently viewed cayenne as being virtually incapable of causing harm regardless of the dosage administered. While it is true that cayenne, given the intensity of its action and the sensations it evokes, is a remarkably safe herb, it is also true that the body does not have a limitless tolerance for any substance. Moderation is always a useful watchword.

Furthermore, the question of correct dosage varies among individuals. The older herbalists' practices consisted of a much hardier breed of patient. The patients of an earlier era were far less sedentary, were not subjected to the abominable modern diet, environmental chemical challenges, or a pattern of drug-suppression of benign acute symptoms, all of which in concert have degraded modern constitutional vitality. Hence, individuals in this era are far more reactive, and thus, have a lower threshold of reaction than did their forebears.

Therefore, the rule with cayenne is the same as with any other medicinal substance: the correct quantity to administer is just enough and not more. In cases of kidney disease, gastrointestinal ulceration or any other problematic disorder, it would be best to check with an experienced health-care professional familiar with the medicinal use of cayenne before attempting to employ it.

Cayenne is also a highly nutritive herb, containing relatively large amounts of vitamin C (369 milligrams per 3.5 oz.) and pro-vitamin A (21,600 I.U. per 3.5 oz.). It also contains significant amounts of potassium, iron and niacin. As a medicine, cayenne acts as a pure stimulant both locally and generally. In herbal medicine, a stimulant is defined as an agent which excites and increases nerve action, and thus, stimulates functional activity of the body's various organs and systems.

Stimulants increase the force of blood circulation and tend to restore balanced circulation of blood to all parts of the body. When applied locally, it is a powerful *rubefacient* (an herb that stimulates capillary dilation and activity and causes skin redness), which draws the blood from deeper tissues to the surface. This not only serves to bring healing nutrients and oxygen to a surface lesion, but helps to relieve internal circulatory congestion.

When taken internally, cayenne effects circulatory change via influence of the nerve centers. Cayenne initiates a general increase in nerve and circulatory tone, and in so doing, imparts a sensation of warmth to the entire system. As a pure stimulant, cayenne activates and accentuates the actions of other herbs when taken in combination with them.

Cayenne is one of the most important circulatory system medicines. Its major influence is upon the capillaries and other elements of the vascular system. According to Dr. Christopher in his book *School of Natural Healing*, he states: "...the herb is a great food for the circulatory system in that it feeds the necessary elements into the cell structure of the arteries, veins and capillaries so that these regain the elasticity of youth again, and the blood pressure adjusts itself to normal [cayenne helps normalize both high- and low-blood pressure]...Cayenne regulates the flow of blood from the head to the feet so that it is equalized; it influences the heart immediately, then gradually extends its effects to the arteries, capillaries and nerves."

Except in large doses, cayenne does not increase heart rate. However, it does increase the force of the pulse. It is also a medicine to consider in the treatment of hemorrhoids and hemorrhoidal bleeding. Hemorrhoids are varicosities of the veins of the hemorrhoidal plexus of the anus and lower rectum. Cayenne affects the venous system indirectly through relief of circulatory congestion in the capillaries. Also, as cayenne

moves through the intestines, it exerts a hemostatic action that helps arrest hemorrhoidal bleeding.

Cayenne: A Great Hemostatic and Styptic Herb

Cayenne is one of the great hemostatic and styptic herbs. It is particularly valuable in this reference for intestinal and hemorrhoidal bleeding, bleeding of the lungs and for uterine hemorrhages. I once observed a direct application of cayenne immediately arrest the bleeding of an ulcerated breast tumor when no other hemostatic herb (previously applied) was even able to slow the flow of blood from the ulceration. In fact, cayenne is one of the most important of the acute medicines of herbal medicine. In addition to hemorrhage, it is also a sovereign remedy for shock, apoplexy (sudden neurological impairment due to cerebrovascular disorders: most commonly intracranial hemorrhage), heart attack, colds, flu, fever, cholera, asthmatic asphyxia and other acute conditions.

Given the strong enhancing effect cayenne exerts upon blood circulation, it is also a valuable herb in the treatment of fever. Enhancement of blood circulation is a prerequisite for stimulating the perspiration that can *break* a fever. In the West Indies, cayenne was once a leading medicine in the treatment of yellow fever and other tropical febrile illnesses, including typhoid fever and malaria.

Regarding malaria, cayenne was once extensively used in conjunction with quinine, with the former greatly intensifying the influence of the latter. Cayenne is particularly indicated for prostrating fevers, especially in persons whose powers of reaction are deficient and difficult to arouse.

The indications for cayenne include marked nervous debility, lack of nerve and circulatory tone, deficiency of functional force, lethargy, digestive weakness and a tendency toward weak circulation and capillary stasis. Also, the individual's fluid organization is somewhat depleted and she may complain of dryness of the mouth.

Cayenne is also a first rate gargle ingredient for sore throat, tonsillitis, laryngitis and diphtheria or any throat disorder caused by an enfeebled and relaxed condition of the pharynx and post-nasal mucosa.

Despite its hot quality, cayenne exerts a powerful anti-inflammatory effect. Many of the most eminent herbalists of the past such as Jethro Kloss, Dr. John Christopher and R. Swinburne Clymer, M.D. observed that it is a specific for both gastric and intestinal ulcers. In his book *School of Natural Healing*, Christopher writes: "It [cayenne] can be used by itself as it would be in healing stomach ulcers; it can be used alone to stop hemorrhaging; it can be used alone as a daily food."

Cayenne's Traditional Use As Both Food And Medicine

Clearly, cayenne is an invaluable medicinal food. The most basic way to use it is as a seasoning in salad dressings, steamed vegetables, lentil stews, egg meals (brown eggs from free-range chickens), etc.

Many people begin their mornings with a mixture of fresh lemon juice and water (proportions for this will vary from one person to the next; a general starting place is the juice of one lemon: 32 oz. of room temperature water). Also, ¼ tsp. of cayenne can prove to be a valuable addition to this lemon juice/water drink, enhancing its cleansing actions upon the gastrointestinal tract, liver and kidneys.

Another daily cayenne drink to consider consists of: 8 oz. warm (*not hot*) water, 1 Tbsp. organic, unfiltered apple cider vinegar, 1/8 tsp. to ½ tsp. of turmeric powder and 1/8 to ½ tsp. of cayenne pepper. This drink exerts stimulant, anti-inflammatory and deobstruent (clearing or opening action upon the natural ducts of the fluids and secretions of the body) actions upon the gastrointestinal tract and circulatory system.

One can also administer cayenne in capsule form. In this case, the capsule should be taken with at least 1 cup of water.

In Conclusion

Clearly, cayenne is worthy of consideration regarding the abnormal clotting and hemorrhagic effects of coronavirus infection. Perhaps in other parts of the world, especially those tropical areas where cayenne is grown and has traditionally been used medicinally, it is already being used in some capacity by both natural medicine practitioners and medical doctors to address certain COVID-19 effects.

Those individuals who have only mild symptoms and are self-treating with natural medicines may want to consider the addition of cayenne to their home treatment protocol. Others who are not infected by the virus may wish to consider cayenne as part of their preventive protocol. After all, using cayenne to help maintain the normal viscosity and flow of the blood and the integrity of the blood vessels could possibly inhibit the potential for both abnormal blood-clotting and internal hemorrhage were infection to occur.

Good Health!