

Can Copper Save Us from the Coronavirus?

By Michael Tinneland

Claims of miracle treatments for our health and wellness never seem to end. We are bombarded with ads for fad diets, medicines that cure everything from acne to toe fungus, and supplements that not only make us healthy but also happy. Determining whether claims by purveyors of would-be treatments are credible, however, is very difficult to do without wide-scale testing.

One recent claim is that a familiar metal, copper, could help us beat back the COVID-19 pandemic. There is already some basic science to suggest that it might help in some ways. Copper has natural antibacterial and antiviral properties, which seem to come from copper's ability to conduct electricity. If a microbe touches a copper surface, the metal carries electrons away from the organism's outer layer, disrupting its metabolism and destroying it in a matter of minutes to hours.

Ancient Origins

Copper's antimicrobial properties have been put to use for at least 8,000 years, even though the earliest adopters didn't understand how the metal worked. During the Bronze Age, water was stored in copper vessels to help prevent waterborne illnesses. Today, some health experts suggest that we should convert surfaces in hospitals and other public places to copper to take advantage of the metal's germ-busting effect. Copper door handles and countertops instead of stainless steel, which lacks the ability to kill microbes, might make public places safer.

Creating copper surfaces is not meant to be a stand-alone tactic, however, as it takes up to four hours or longer for SARS-CoV-2 (the coronavirus that causes COVID-19) to be killed on a copper surface. Also, research points to aerosols as the primary mode of transmission, not surfaces.

To block airborne viral particles, face masks have become an important line of defense, particularly to help prevent asymptomatic carriers from spreading the disease. Applying what we know about copper, several manufacturers incorporate fine copper mesh in face masks.

Weighing What We Know

But is it worth paying extra for a copper layer? Many medical experts doubt that copper masks work better than regular masks for multiple reasons. Face masks with a copper layer contain varying amounts of copper, and there's no



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Should your face mask contain copper?



What Is Copper?

Symbol: Cu

Atomic number (Z): 29

Properties: Copper is malleable, conductive, and resistant to corrosion.

Uses: Power transmission, telecommunications (Cu); it's also a dietary mineral (Cu²⁺)

Reserves: The largest copper reserves are in Chile; Australia, Peru, Mexico, Russia, and the U.S. also have significant reserves.

way for a consumer to know how much coverage copper provides in any given mask.

Rather than debate the merits of copper masks versus cloth-only face coverings, medical experts are more concerned with getting people to wear masks at all. By mid-summer, several studies on mask-wearing and declining

How to protect yourself and others from the coronavirus

To learn more about how to prevent the spread of COVID-19, visit www.coronavirus.gov.

infection rates suggest that donning masks—infused with copper or not—can greatly reduce the rate of transmission of the coronavirus.

Additionally, wearing face masks is only one tactic of several that are required for reducing the spread of COVID-19. According to the U.S. Centers for Disease Control and Prevention, other ways to limit the spread of the coronavirus include minimizing in-person contact with others, staying at least 6 feet apart when you are in the presence of others, and frequently washing your hands with soap and water for at least 20 seconds. These methods have been shown to effectively reduce the spread of disease.

Meanwhile, copper-containing masks have not been put through rigorous testing to see if they work against SARS-CoV-2. Until the results are in, the matter is open for discussion.