Copper has been shown to destroy half of the coronavirus on its surface in 46 minutes and completely in 4 hours. Now we need to use it in its most flexible format — copper tape — to cover high-touch surfaces in public and private spaces to provide a passive safeguard against lapses in our active fight against the virus.

The novel Coronavirus (COVID-19) is here to stay for the foreseeable future. In fact, a US federal report assumes that the pandemic will last for the next 18 months potentially in multiple waves. Right now, parts of the US and many Asian and European countries are taking social distancing to the extreme, initiating lockdowns and travel restrictions. However, social distancing alone will not take us over the finish line.

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This expanded 6-foot social bubble, meant to avoid the air-path of sneezes and coughs, can only do so much for prevention, especially considering the coronavirus’ long-lasting persistence on surfaces.
Staying out of sneezing & coughing distance does not go far enough. There is evidence that the Coronavirus persists on surfaces for long periods of time, with detectable levels of active Coronavirus measured after 72 hours on plastic and stainless steel. Despite best efforts to evade human-to-human contact, people may occasionally overlook the many items and surfaces they interact with every day in homes, businesses, grocery stores and more, from plastic (such as bottles, chairs and food containers) to metal (like door handles and faucets).

Even six feet away from each other, through these high-touch surfaces, the virus can be a lot closer and more transmittable than we think.

Active and Passive Battles Against a Hidden Assailant

In combating this simple transmission method, the first line of defense so far has been “active” solutions.

· **Active solutions** include regular wipe downs of potentially contaminated surfaces and regular washing of hands that may have touched a contaminated surface. When enacted, active solutions are extremely effective. However, as a group, humans are not reliable enough to practice these active solutions consistently every time we touch a potentially contaminated surface.

· **Passive solutions:** Because surface cleaning and hand-washing are only as effective as our mindful and consistent execution of active solutions, it is important to have a backstop for those momentary slips. These are “passive” solutions. An extremely effective passive solution is to make these high-touch surfaces kill the coronavirus all by themselves without a human intervention with disinfectant.

An extremely effective passive solution is to make these high-touch surfaces kill the coronavirus all by themselves without a human intervention with disinfectant. A material surface that many people are familiar with at killing microbes of all types is silver. A much cheaper material that may be less familiar for its antimicrobial properties is copper. Copper has been shown to fully neutralize the coronavirus in less than 4 hours compared to the 72 hours for steel and destroy half of the virus in 46 minutes.

If you need more convincing, this great Vice article highlights copper’s long history as an antimicrobial material, going back to sparing boilermakers in 1800’s France from
cholera, and how the material kills coronavirus (copper ions destroy the virus RNA). Copper even retains its antimicrobial properties even as it forms a patina and turns green.

So, how do we convert our surfaces, either temporarily or permanently, to copper?

Before you start outfitting your home or office with costly surface coatings or replacement copper fixtures, keep in mind that it’s not the underlying material that matters, but rather the surface. Fortunately, one of the most widely available to the general public and easiest to apply solutions is copper tape.

**Coronavirus-killing Copper in Every Home and Business**

Copper tape is a common, inexpensive product that can be applied to a myriad of surfaces from plastic to glass to metal.

Imagine if the push/pull door handles at the community gym or the pumps on plastic condiment dispensers, whether at a coffee shop or a fast food burger joint, or even your home doorknobs and faucet handles were easily be covered in copper. This would significantly decrease the odds of coming in contact with coronavirus microbes, especially in moments when when our guard is down about washing our hands or not touching our face.

Copper tape is also easy to come by and can be found at local hardware, garden, or electronics stores. Call ahead and make sure they’re open and have it in stock or, better yet, check to see if it’s available online. $10–20 worth of copper tape should be enough to cover the essential high touch surfaces in a typical home or fast food restaurant.

Recently, I went out and bought a roll from my local hardware store for $13.99 and, armed with only a pair of scissors, covered many high-touch areas in a local office building with just one roll (photos below). First, I cut the tape to length, then applied the tape while removing the backing paper at the same time. The tape can rip, so go slowly. I flattened down the tape with my fingers and fingernails, and added patches of tape if there were any gaps in coverage. For long-term use, periodically clean gently with light soap and water with a sponge, avoiding aggressive scrubbing.

Once the copper is no longer needed, and COVID-19 has abated, simply peel it off.
After buying 15 feet of copper tape (top left) for slug deterrence for $13.99, it was enough to fully coat a commercial push bar door (top middle), commercial pull handle (top right), water fountain push button (bottom left), bathroom sink faucet handle (bottom middle), and a toilet flusher handle (bottom right). Credit to The Granary, Morgan Hill, CA.

**A Simple Solution That Can Have a Lasting Impact For All**

With such an accessible and inexpensive option to transition our high-touch surfaces to a coronavirus-killing material, it is our collective responsibility to provide this passive backstop to complement our primary active solutions.

To be most effective, as many high-touch surfaces as possible must be covered from homes to businesses. We must use materials to protect against the inevitable times we forget to wash our hands or accidentally touch our faces. Simple solutions such as these, especially with widespread execution, could play an integral role in thwarting a resurgence of the virus once we emerge from our isolation and attempt to resume our normal lives.

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Thanks to Mary Catherine O'Connor (hide).