

Transcript Details

This is a transcript of an educational program accessible on the ReachMD network. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/covid-19-frontlines/improvising-protective-medical-gear-to-fight-covid-19/11374/>

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Improvising Protective Medical Gear to Fight COVID-19

Dr. Birnholz:

Coming to you from the ReachMD Studios, this is *COVID-19: On the Frontlines*. I'm Dr. Matt Birnholz.

The following is a brief news summary on Do-It-Yourself Medical Devices and the hunt for improvisational solutions to equipment shortages, reported by Georgia Tech's News Center. Visit the site at news.gatech.edu

U.S. healthcare professionals are stuck in a race against time to improvise ventilators, face shields, respirators, hand sanitizer, surgical gowns, disinfectant wipes, and other critical gear for combating the COVID-19 global pandemic.

As hundreds of thousands of new patients are expected to flood hospitals within the next few weeks, many healthcare providers are counting their final days' worth of supplies. The demand for ventilators alone could reach four times more than what is currently available.

This challenge stems from the fact that the international supply chain of equipment and materials has already been depleted by China, Italy, South Korea, and other countries that were hit by the virus months ago. And as the United States is only starting to see the full impact of COVID-19, hospitals nationwide are going to have to get creative in the way their needs are met during this supply shortage.

Fortunately, at the heart of this creative take on medical supplies are several university research teams who are sprinting to develop "do-it-yourself" healthcare gear designs.

Utilizing locally available resources, these teams have already prepared thousands of kits hospitals can assemble on-site. According to Caron Meredith, the Director of the Renewable Bioproducts Institute, "The idea is to take a basic material intended for a different function and transform it into the products that we need."

Take plastic-lined tablecloths, for instance. While these are traditionally used for kids' birthday parties, these are now being looked at as potential temporary gowns for healthcare providers treating patients diagnosed with COVID-19.

3-D printing has also shown to be an effective way to produce face shields by the thousands, with the agility to design different types used for specific purposes: for instance, one to protect clinicians from splashes, and the other to help extend the life of soft respirators filtering out virus particles.

Current plans focus on making these and other designs available for anyone with laser cutting or 3-D printing capabilities within the next two weeks.

For ReachMD, this is *COVID-19: On the Frontlines*. To access more details on this news report, visit Georgia Tech's News Center page and check out their Rapid Response Website focusing on PPE needs and potential collaborations. And as always, to add *your* perspectives toward the fight against this global pandemic, visit us at ReachMD.com and become Part of the Knowledge. Thank you for listening.